

COLORADO STATE  
TEACHERS COLLEGE  
Greeley, Col

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|------------------------|-------------------------|
| McNabb, Frances        | Walsenburg, Colo.       |
| McNair, Nell           | Denver, Colo.           |
| McNeal, Edythe         | Wiggins, Colo.          |
| McNeal, Elsie          | Fort Worth, Texas       |
| McNeal, Maude          | Seneca, Ill.            |
| McNew, Addie T.        | Greeley, Colo.          |
| McNutt, Sara A.        | Greeley, Colo.          |
| McQuatters, Emma Lou   | Waxahachie, Texas       |
| McVeym, J. P.          | Adena, Colo.            |
| McVey, Nina E.         | Fort Lupton, Colo.      |
| McVeym, P. L.          | Fort Lupton, Colo.      |
| McWhorter, Irene       | Denver, Colo.           |
| Meacham, Allie         | Fort Worth, Texas       |
| Meacham, W. A.         | Fort Worth, Texas       |
| Means, Anna Anderson   | Bennett, Colo.          |
| Means, Maude E.        | Robstown, Texas         |
| Meek, Mrs. Daisy W.    | Mayville, Mo.           |
| Meginity, Lee E.       | Westcliffe, Colo.       |
| Megowan, Rebecca       | Monroe City, Mo.        |
| Mellor, Hilda          | Greeley, Colo.          |
| Merriam, Gladys        | Greeley, Colo.          |
| Meriman, Pearl         | Greeley, Colo.          |
| Merry, Lucy J.         | Manitou, Colo.          |
| Metzger, Maude         | Remes, Minn.            |
| Meyers, Fawn E.        | Greeley, Colo.          |
| Meyers, Joan Marie     | Denver, Colo.           |
| Meyers, Mrs. Josephine | Denver, Colo.           |
| Milley, Harriett M.    | Junction City, Kan.     |
| Miller, Mrs. Clara     | Sanford, Colo.          |
| Miller, M. Elizabeth   | Greeley, Colo.          |
| Miller, Florence D.    | Arvada, Colo.           |
| Miller, N. Lillian     | Colorado Springs, Colo. |
| Miller, Louise C.      | Colorado Springs, Colo. |
| Miller, Mamie Cypert   | Lander, Wyo.            |
| Miller, Marie A.       | Hasty, Colo.            |
| Miller, Waldo S.       | Waltham, Mass.          |
| Millidge, Marie        | Boulder, Colo.          |
| Milligan, Floy         | Montrose, Colo.         |
| Millis, Grace          | Dallas, Texas           |
| Milligan, Bertha Gayne | Denver, Colo.           |
| Mills, Bertha          | Findlay, Ohio           |
| Mills, Glendora        | Findlay, Ohio           |
| Miner, Marjorie        | Flagler, Colo.          |
| Miner, Lorena V.       | Burlington, Colo.       |
| Mitchell, Delitha B.   | Greeley, Colo.          |
| Mitchell, Etta L.      | Fowler, Colo.           |
| Mitchell, Florence     | Ortonville, Minn.       |
| Mitchell, Goldie       | New Boston, Ill.        |
| Mitchell, Mabel C.     | Paducah, Ky.            |
| Mitchell, Margaret     | Towner, Colo.           |
| Mitchell, Stella Irene | Lamar, Colo.            |
| Mitchell, Syvillia     | Idaho Springs, Colo.    |
| Moffatt, C. llie       | Dallas, Texas           |
| Moffatt, Hilda         | Wheatand, Wyo.          |
| Mohatt, Clara          | Sidney, Neb.            |
| Mohatt, Margaret       | Sidney, Neb.            |
| Morgan, Katherine C.   | Aspen, Colo.            |
| Morgan, Lillian        | Tulsa, Okla.            |
| Morse, Bernice         | Greeley, Colo.          |
| Morringer, Zella       | Barns, Colo.            |
| Morris, Clara D.       | Chivington, Colo.       |
| Morgan, Bertha Gaynell | Denver, Colo.           |
| Morris, Anna           | Denver, Colo.           |
| Morris, Jessie         | Chivington, Colo.       |
| Morrison, Doris        | Canon City, Colo.       |
| Morrison, Ruth Ann     | Smith Center, Kan.      |
| Monroe, Myrtle         | Denver, Colo.           |
| Montgomery, Lora Ann   | Lincoln, Kan.           |
| Moore, Alice M.        | Sapulpa, Okla.          |
| Moore, Hazel Helen     | Denver, Colo.           |
| Moore, Lilah B.        | Monroe, La.             |
| Moore, Lora Mae        | Flagler, Colo.          |
| Moore, Mary E.         | Haxtun, Colo.           |
| Moorhead, Ada          | Cheney Center, Colo.    |
| Moorhouse, Eddie A.    | Canon City, Colo.       |
| Morning, Elizabeth     | Denver, Colo.           |
| Morrison, Mary C.      | Greeley, Colo.          |
| Morrow, Mary E.        | Denver, Colo.           |
| Morteson, L. H.        | Sanford, Colo.          |
| Morton, Hallie D.      | Muskogee, Okla.         |
| Morton, Lucy B.        | Nampa, Idaho            |
| Mosher, Abbie          | Denver, Colo.           |
| Mosley, Nancy          | Dallas, Texas           |

|                                  |                         |
|----------------------------------|-------------------------|
| Moss, Inez                       | Llano, Texas            |
| Moss, Susannah                   | Greeley, Colo.          |
| Morgan, Ida                      | Monticello, Ky.         |
| Moyer, Hayden                    | Greeley, Colo.          |
| Mullin, Ida                      | Paola, Kan.             |
| Mulvihill, Mary E.               | Denver, Colo.           |
| Murchinson, Mina                 | Arvada, Colo.           |
| Murfin, Robert E.                | Cope, Colo.             |
| Murphy, Eva                      | Havana, Ill.            |
| Murphy, Mrs. Roxy                | Colorado Springs, Colo. |
| Murray, Hazel                    | Haxtun, Colo.           |
| Murray, Margaret                 | Fort Collins, Colo.     |
| Murrell, Blanche                 | Dallas, Texas           |
| Musser, Mary M.                  | Greeley, Colo.          |
| Meyer, Elizabeth                 | Chapman, Kan.           |
| Myers, Frances                   | Greeley, Colo.          |
| Myers, Mada B.                   | Greeley, Colo.          |
| Myers, Rosa V.                   | La Junta, Colo.         |
|                                  |                         |
| Nanney, Virgie                   | Snyder, Colo.           |
| Nash, Hazel                      | Ingersoll, Okla.        |
| Nauman, Irene M.                 | Haxtun, Colo.           |
| Neal, Paul S.                    | Chivington, Colo.       |
| Needles, Mrs. Endora             | Collbran, Colo.         |
| Neff, Helen                      | Denver, Colo.           |
| Nelson, Alma                     | Topeka, Kan.            |
| Nelson, Alma C.                  | Omaha, Neb.             |
| Nelson, Edna                     | Denver, Colo.           |
| Nelson, Esther A.                | Minturn, Colo.          |
| Nelson, Gladys Marie             | Lucerne, Colo.          |
| Nelson, Nell                     | Howardsville, Colo.     |
| Nelson, Lucy C.                  | Berthoud, Colo.         |
| Nesbet, Ora                      | Colorado Springs, Colo. |
| Newlin, Flossie                  | Del Norte, Colo.        |
| Newman, Stella                   | Haxtun, Colo.           |
| Newton, Nellie                   | Keensburg, Colo.        |
| Newton, Pearl E.                 | Durango, Colo.          |
| Nichols, Helen                   | Sapulpa, Okla.          |
| Nelson, Freda                    | Saratoga, Wyo.          |
| Nichols, Mamie E.                | Florence, Colo.         |
| Nichols, Stella                  | Austin, Colo.           |
| Nicholson, Priscella             | Colorado Springs, Colo. |
| Nicholls, Annette                | Denver, Colo.           |
| Nielson, Edna                    | Denver, Colo.           |
| Nielson, Emma                    | Marinette, Neb.         |
| Nicholson, Paul H.               | Frederick, Colo.        |
| Nieman, Lena E.                  | Mortonville, Kan.       |
| Nims, Eleanor                    | Greeley, Colo.          |
| Nix, Mrs. Lily L.                | Brush, Colo.            |
| Nixon, Carl                      | Tulsa, Okla.            |
| Noble, Iva                       | Leadville, Colo.        |
| Noble, Myrtle                    | Checotah, Okla.         |
| Norce, Lillian                   | Denver, Colo.           |
| Norcott, Elfreda                 | West Plains, Colo.      |
| Nordlein, Emilie                 | Blackhawk, Colo.        |
| Nordlein, Esther                 | Blackhawk, Colo.        |
| Norton, Olive                    | Denver, Colo.           |
| Nowlin, E. W.                    | Webster Groves, Mo.     |
|                                  |                         |
| Odd, Gertrude M.                 | Sugar City, Colo.       |
| O'Donnell, Sister Mary Katherine | Pueblo, Colo.           |
| Ogle, Emmett                     | Newton, Kan.            |
| O'Hagan, Rose                    | Farr, Colo.             |
| Ohlson, Iah B.                   | Cambridge, Neb.         |
| O'Keefe, Mary                    | Spaulding, Neb.         |
| O'Laughlin, Helen                | Lakin, Kan.             |
| Olds, Raymond                    | Two Buttes, Colo.       |
| Olinger, Ethel H.                | Greeley, Colo.          |
| Olinger, Evelyn                  | Greeley, Colo.          |
| Olson, Etta Elizabeth            | Denver, Colo.           |
| Olson, Rosalie                   | Pueblo, Colo.           |
| O'Neill, Julia                   | O'Neill, Neb.           |
| Osborne, Ethel                   | Fort Worth, Texas       |
| Osmer, Lillie C.                 | Greeley, Colo.          |
| Osterle, Rose                    | Ault, Colo.             |
| O'Toole, Clara E.                | Denver, Colo.           |
| O'Toole, Mary                    | Denver, Colo.           |
| Overson, Lena                    | Greeley, Colo.          |
| Owen, Bobbye                     | Emerson, Ark.           |
| Owen, Edith                      | Marion, Ill.            |
| Owen, Peri                       | Mancos, Colo.           |
| Owens, O. M.                     | Independence, Ark.      |
| Owens, Mrs. O. M.                | Sulphur Rock, Ark.      |

|                       |                         |
|-----------------------|-------------------------|
| Pace, Goldie          | Longmont, Colo.         |
| Packard, Lillian C.   | Greeley, Colo.          |
| Packard, Ruth         | Walsenburg, Colo.       |
| Paine, Sarah A.       | Byers, Colo.            |
| Palm, Edith           | Larkspur, Colo.         |
| Palm, Helen           | Larkspur, Colo.         |
| Palmer, Esther        | Greeley, Colo.          |
| Palmquist, Christine  | Denver, Colo.           |
| Pancake, Florence     | Loveland, Colo.         |
| Pantall, Myrta        | Sterling, Colo.         |
| Park, Lawrence        | Greeley, Colo.          |
| Parker, Augusta       | Hutchinson, Kan.        |
| Parker, Mrs. Irene    | Clark, Colo.            |
| Parker, Virginia      | Kiowa, Kan.             |
| Parks, Grace          | Greeley, Colo.          |
| Parrish, Virginia     | Metropolis, Ill.        |
| Parsons, Lillie       | Valley, Neb.            |
| Parvin, S. R.         | Sterling, Colo.         |
| Parvin, Mrs. S. R.    | Sterling, Colo.         |
| Paston, Ella M.       | Edgewater, Colo.        |
| Patrick, Ella         | Olathe, Colo.           |
| Patterson, Mamie      | Bushnell, Neb.          |
| Patterson, Ona C.     | Greeley, Colo.          |
| Patton, Belle E.      | Coleman, Texas.         |
| Paul, Blanche J.      | Denver, Colo.           |
| Peak, W. E.           | Snyder, Colo.           |
| Peavy, Mard C.        | Denver, Colo.           |
| Peers, Katherine      | Boulder, Colo.          |
| Penrose, Ellen        | Greeley, Colo.          |
| Perimenter, Addie     | Antlers, Okla.          |
| Permenter, Rhoda      | Palmer, Texas           |
| Perkins, Catherine    | Newton, Kan.            |
| Perkins, Josie        | Newton, Kan.            |
| Perry, Clare          | Greeley, Colo.          |
| Peterson, Anna        | Leadville, Colo.        |
| Peterson, Dorothy     | East Moline, Ill.       |
| Peterson, Edith K.    | Minden, Neb.            |
| Peterson, Elizabeth   | Windsor, Colo.          |
| Peterson, Helen       | Loveland, Colo.         |
| Peterson, Mary        | Haxtun, Colo.           |
| Petit, Obara          | Greeley, Colo.          |
| Pfost, Dempsey        | Arapahoe, Colo.         |
| Pfost, Grace M.       | Cheyenne Wells, Colo.   |
| Phelps, Chester       | Greeley, Colo.          |
| Phelps, Leona F.      | Fremont, Neb.           |
| Phelps, Selma A.      | Grover, Colo.           |
| Phillips, Omar R.     | Hillrose, Colo.         |
| Phippeny, G. O.       | Evans, Colo.            |
| Phippeny, Walter      | Greeley, Colo.          |
| Pick, Gladys          | Colorado Springs, Colo. |
| Pickering, Gladys     | Canon City, Colo.       |
| Pierce, Lulu          | Greeley, Colo.          |
| Pierce, Mary W.       | Greeley, Colo.          |
| Pierce, Mila          | Denver, Colo.           |
| Pierce, Ruth D.       | Longmont, Colo.         |
| Pitney, Lorene        | Cheraw, Colo.           |
| Pitts, Mrs. Harry     | Loveland, Colo.         |
| Pitts, Sallie         | Denton, Texas           |
| Plaitt, Ruth L.       | Wellington, Colo.       |
| Plattner, Ruth M.     | Arvada, Colo.           |
| Plattner, Mary U.     | Denver, Colo.           |
| Plessingerm, Hilda    | Paola, Kan.             |
| Pulliam, Josephine    | Durango, Colo.          |
| Plunk, A. C.          | La Junta, Colo.         |
| Poland, Nora          | Colby, Kan.             |
| Porter, Eva A.        | Duluth, Minn.           |
| Polson, Mary E.       | Alva, Okla.             |
| Poole, Frances        | Georgetown, Colo.       |
| Poole, Maude B.       | Denver, Colo.           |
| Popkins, Myrtle       | Greensburg, Kan.        |
| Potter, Mary M.       | Greeley, Colo.          |
| Potts, Frances        | Waverly, Iowa           |
| Powell, Ethel         | Hudson, Colo.           |
| Powell, Mary E.       | Las Animas, Colo.       |
| Powell, Paulina       | Nowata, Okla.           |
| Powers, Martha M.     | McAlister, Okla.        |
| Prenke, Clare         | Greeley, Colo.          |
| Pre.cott, Blake D.    | Greeley, Colo.          |
| Preston, M. Genevieve | Fort Morgan, Colo.      |
| Prewerr, Hattie O.    | Fort Worth, Texas.      |
| Price, Florence       | Junction City, Kan.     |
| Pritchett, Ollie B.   | Chickasha, Okla.        |
| Proctor, Faith        | Norton, Kan.            |
| Prudhoe, Gladys       | Parr, Colo.             |

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| Prudy, Lucille .....       | Milliken, Colo.         |
| Purl, Annie .....          | Georgetown, Texas       |
| Puckett, Maude .....       | Partridge, Kan.         |
| Puleson, Vera .....        | Wellington, Colo.       |
| Pyle, Jettie M. ....       | Julesburg, Colo.        |
| Quinlivan, Margaret .....  | Denver, Colo.           |
| Quinn, Jean .....          | Tempe, Ariz.            |
| Quirk, Anna .....          | Denver, Colo.           |
| Raber, Ethelyne .....      | White Water, Colo.      |
| Rae, Madelyn .....         | Greeley, Colo.          |
| Raeth, G. A. ....          | Salt Lake City, Utah    |
| Ragdale, Lillian .....     | Attico, Kan.            |
| Ralston, Irene Z. ....     | Eaton, Colo.            |
| Ramey, Lydia .....         | Brighton, Colo.         |
| Ramey, Dorcas .....        | Brighton, Colo.         |
| Ramsey, Irene .....        | Boyero, Colo.           |
| Randle, Molle M. ....      | Hartman, Colo.          |
| Ranks, Scena F. ....       | Ordway, Colo.           |
| Rardin, Maybelle .....     | Colorado Springs, Colo. |
| Rathburn, Anna .....       | Arapahoe, Colo.         |
| Rawlins, Edna .....        | Monte Vista, Colo.      |
| Ray, Mrs. Katherine .....  | Wiley, Colo.            |
| Ray, Nellie .....          | Wiley, Colo.            |
| Read, Hazel .....          | Pueblo, Colo.           |
| Ream, Mary L. ....         | Greeley, Colo.          |
| Reathford, Kate .....      | Wichita, Kan.           |
| Rebault, Sister Mary ..... | Pueblo, Colo.           |
| Redburn, Beatrice .....    | Denver, Colo.           |
| Reed, Elsie M. ....        | Boulder, Colo.          |
| Reed, Genevieve .....      | Denver, Colo.           |
| Reed, Hazel A. ....        | Creston, Colo.          |
| Reed, Laura .....          | Sanford, Colo.          |
| Reed, Lillian .....        | Alamosa, Colo.          |
| Reed, Truman .....         | Wichita, Kan.           |
| Reick, Ida .....           | Julesburg, Colo.        |
| Renks, Maude .....         | Greeley, Colo.          |
| Reinke, Helen .....        | Lamar, Colo.            |
| Reisdorf, Addie .....      | Canmargo, Okla.         |
| Remick, Nellie A. ....     | Colorado Springs, Colo. |
| Rhea, Alda .....           | Colorado Springs, Colo. |
| Richard, Merle .....       | Chickasha, Okla.        |
| Richards, Mary E. ....     | Sterling, Colo.         |
| Richards, Stella .....     | Sterling, Colo.         |
| Richards, Ethlyn .....     | Clay Center, Kan.       |
| Riddel, Madge B. ....      | Dallas, Texas           |
| Riddle, Mina .....         | Paradox, Colo.          |
| Riddle, Nina .....         | Fort Collins, Colo.     |
| Riddle, Nora .....         | Grand Junction, Colo.   |
| Riddlesbarger, Ada .....   | Omaha, Neb.             |
| Riehm, Maude H. ....       | Muskogee, Okla.         |
| Riggs, Eva E. ....         | Colorado Springs, Colo. |
| Riley, Lura V. ....        | Sterling, Colo.         |
| Riley, Murza Z. ....       | Cozad, Neb.             |
| Ring, Amy E. ....          | Trinidad, Colo.         |
| Ringe, Ruth .....          | Nowata, Okla.           |
| Rinker, Dave .....         | Sedan, Kan.             |
| Rippe, Vesta .....         | Muskogee, Okla.         |
| Roach, Myrtle .....        | Wheatland, Wyo.         |
| Robb, Mrs. Ruth .....      | Karvel, Colo.           |
| Robb, James G. ....        | Karvel, Colo.           |
| Roberts, Elmer .....       | Greeley, Colo.          |
| Robertson, Edith .....     | Pueblo, Colo.           |
| Robertson, Esther M. ....  | North Platte, Neb.      |
| Robertson, Mary .....      | Seymour, Mo.            |
| Robinson, Georgina .....   | Louisville, Colo.       |
| Robinson, Mabella .....    | Dallas, Texas           |
| Robinson, Rachael C. ....  | Alva, Okla.             |
| Robick, Edna .....         | Denver, Colo.           |
| Robuck, Franz .....        | Rawlins, Wyo.           |
| Robson, Eloise .....       | Byers, Colo.            |
| Rochio, Jennie .....       | Rockvale, Colo.         |
| Roemer, Regina .....       | Galveston, Texas        |
| Rogers, Ethlyn .....       | Denver, Colo.           |
| Rogers, Landram A. ....    | Sterling, Colo.         |
| Rogers, Violet .....       | Fremont, Neb.           |
| Romick, Edna G. ....       | Denver, Colo.           |
| Romick, Nell .....         | Denver, Colo.           |
| Rowan, Ida R. ....         | Hesperus, Colo.         |
| Rule, Beatrice A. ....     | Colorado Springs, Colo. |
| Ruger, Mrs. Mary .....     | Kimball, Neb.           |
| Ruggles, Maude A. ....     | Denver, Colo.           |

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|----------------------------|-------------------------|
| Rusher Frances .....       | Mitchell, Neb.          |
| Rushing, Lulu .....        | Floydada, Texas         |
| Rustad, Annetta .....      | Longmont, Colo.         |
| Rutherford, Ruba Jr. ....  | Boulder, Colo.          |
| Saathoff, W. H. ....       | Greeley, Colo.          |
| Sandifur, Mrs. Chas. ....  | Sugar City, Colo.       |
| Sample, Louise .....       | Weldona, Colo.          |
| Sampson, Henry H. ....     | Bridgeport, Texas       |
| Sampson, Mrs. H. H. ....   | Bridgeport, Texas       |
| Sample, Ivan .....         | Greeley, Colo.          |
| Sample, Mrs. Ivan .....    | Greeley, Colo.          |
| Sandifur, Charles .....    | Sugar City, Okla.       |
| Samson, Mabel .....        | Greeley, Colo.          |
| Sapp, Flora L. ....        | Cheyenne, Wyo.          |
| Sawhill, Ray .....         | Winterset, Iowa         |
| Sawyer, Mrs. Carrie .....  | Minden, Neb.            |
| Sawyer, Mabel E. ....      | Denver, Colo.           |
| Sawyer, Marion .....       | Minden, Minn.           |
| Scalnette, Adella .....    | Canon City, Colo.       |
| Schachtler, Katherine ..   | Upland, Neb.            |
| Schaefer, Mildred .....    | Greeley, Colo.          |
| Schmidt, Edna .....        | Lorraine, Kan.          |
| Schofield, Sarah V. ....   | Manassa, Colo.          |
| Schwab, Agnes .....        | Dunlap, Iowa            |
| Schwab, Bess.e .....       | Ronkawa, Okla.          |
| Schwab, Gertrude .....     | Dunlap, Iowa            |
| Schweiger, Caroline .....  | La Fayette, Colo.       |
| Schuler, Dorothy .....     | Wellington, Colo.       |
| Schureman, Lucille .....   | Denver, Colo.           |
| Schwander, Anna .....      | Denver, Colo.           |
| Scofield, Ruby .....       | Allison, Colo.          |
| Scott, Charles E. ....     | Timnath, Colo.          |
| Schmidt, Ellen M. ....     | Omaha, Neb.             |
| Schnelbey, Ellsworth ..... | Boyer, Colo.            |
| Schneller, Jenny May ..... | Catasauqua, Pa.         |
| Schoell, Louise .....      | LeSeur, Minn.           |
| Scott, Frances .....       | Durango, Colo.          |
| Scott, Edith .....         | Dallas, Texas           |
| Scott, Grace J. ....       | Rudyard, Mich.          |
| Seaford, Mary .....        | Colorado Springs, Colo. |
| Scott, Lettie .....        | Plainview, Neb.         |
| Searles, Addie .....       | Denver, Colo.           |
| Seastrand, Edna .....      | Greeley, Colo.          |
| Seastrand, Ruth .....      | Greeley, Colo.          |
| Severell, Cora Bell .....  | Port Collins, Colo.     |
| Segelke, Hilda .....       | Brush, Colo.            |
| Selestrom, Evelyn M. ....  | Denver, Colo.           |
| Seip, Ida .....            | Summerfield, Kan.       |
| Scholtz, Maude .....       | Loveland, Colo.         |
| Selberg, Edith .....       | Greeley, Colo.          |
| Sell, Mrs. N. F. ....      | St. Joseph, Mo.         |
| Senter, Faith E. ....      | Denver, Colo.           |
| Sewell, Blanche .....      | Belvidere, Ill.         |
| Seymour, Mrs. Melita ..... | Central City, Colo.     |
| Sheafor, Mrs. Delma .....  | Colorado Springs, Colo. |
| Shackley, Anna E. ....     | Arvada, Colo.           |
| Shafer, Florence .....     | Parkdale, Colo.         |
| Shaffer, Mildred .....     | Lancaster, Mo.          |
| Shannon, Birdie F. ....    | Golden, Colo.           |
| Shannon, Mrs. Callie ..... | Graham, Texas           |
| Shaver, Mrs. Morey .....   | Maysville, Mo.          |
| Shaw, Boyd .....           | Wiggins, Colo.          |
| Shaw, Jessie R. ....       | Ault, Colo.             |
| Shawerft, Grace .....      | La Jara, Colo.          |
| Shelton, Kathryn .....     | Kansas City, Mo.        |
| Sherlock, Norma .....      | Denver, Colo.           |
| Shewmaker, Letha .....     | Barkkow, Mo.            |
| Shipley, Anna .....        | Lebanon, Kan.           |
| Shipley, Laura D. ....     | Lebanon, Kan.           |
| Shipperd, Bessie G. ....   | Denver, Colo.           |
| Shiveleg, Josephine .....  | Omaha, Neb.             |
| Shore, Belle .....         | Hugo, Colo.             |
| Shurgart, Helen .....      | Lafayette, Colo.        |
| Shults, Bessie .....       | Delnorte, Colo.         |
| Sprinkle, Helen .....      | Canon City, Colo.       |
| Shryock, Marie D. ....     | Upland, Neb.            |
| Shipley, Laura D. ....     | Lebanon, Kan.           |
| Sieg, Elizabeth C. ....    | Denver, Colo.           |
| Simcick, Teressa .....     | Pueblo, Colo.           |
| Simmeth, Georgie E. ....   | Pueblo, Colo.           |
| Simmons, Chloe E. ....     | Simla, Colo.            |
| Simmons, Mildred .....     | Plateau City, Colo.     |
| Simms, Eilma J. ....       | Greeley, Colo.          |

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|--------------------------|-------------------------|
| Simms, Nellie            | Denver, Colo.           |
| Sinclair, Myria A.       | Denver, Colo.           |
| Sisson, Mary             | Golden, Colo.           |
| Skinner, Florence        | Sterling, Colo.         |
| Skold, Esther            | Windsor, Colo.          |
| Slater, Lucille          | Strong, Ark.            |
| Slaughter, Elizabeth     | Colorado Springs, Colo. |
| Slockett, Florence       | Greeley, Colo.          |
| Slocum, June             | Omaha, Neb.             |
| Smelser, N. Stella       | Julesburg, Colo.        |
| Smilie, Dorothy          | Greeley, Colo.          |
| Smith, Alma              | Longmont, Colo.         |
| Smith, Arnetta R.        | Chickasha, Okla.        |
| Smith, Clara             | Tahlequah, Okla.        |
| Smith, Clara B.          | Denver, Colo.           |
| Smith, Dorothy I.        | Ault, Colo.             |
| Smith, Ethel             | Colorado Springs, Colo. |
| Smith, Frances           | Loveland, Colo.         |
| Smith, Kate E.           | Denver, Colo.           |
| Smith, Helen H.          | Trinidad, Colo.         |
| Smith, Hulah             | Boulder, Colo.          |
| Smith, Jennie M.         | Ardmore, Okla.          |
| Smith, Jessie            | Wilmington, Ohio        |
| Smith Lewis Doyle        | Lander, Wyo.            |
| Smith, Lulu              | Greeley, Colo.          |
| Smith, Mary G.           | Loveland, Colo.         |
| Smith, Sister Mary       | Denver, Colo.           |
| Smith, Mildred E.        | Marion, Ohio            |
| Smith Nellie             | La Porte, Colo.         |
| Smith, Nettie            | Sterling, Colo.         |
| Smith, Paulne J.         | Seymour, Mo.            |
| Smith, Ralph             | Greeley, Colo.          |
| Smith, Wells             | Greeley, Colo.          |
| Smith, Mrs. Wells        | Greeley, Colo.          |
| Smith, Winifred          | Denver, Colo.           |
| Smitheson, P. E.         | Holyoke, Colo.          |
| Snider, Edith            | Hailey, Idaho           |
| Southworth, Mrs. Thelma  | Danbury, Neb.           |
| Spaeth, Ruby M.          | Sterling, Colo.         |
| Spaid, Ruby              | Simla, Colo.            |
| Spangler, Mary           | Greeley, Colo.          |
| Spealman, Gladys         | Arriba, Colo.           |
| Speer, Eloise            | Big Sandy, Texas        |
| Specht, Luella           | Hartley, Iowa           |
| Spencer, Agnes           | Dallas, Texas           |
| Spencer, Margaret        | Dallas, Texas           |
| Spierling, Anita May     | Loveland, Colo.         |
| Spivey, Sylvia           | Brownsville, Texas      |
| Springsteen, Frank       | Denver, Colo.           |
| Stahl, Merry             | Denver, Colo.           |
| Standard, Mrs. Anicartha | Meeker, Colo.           |
| Staub, Isabelle          | Denver, Colo.           |
| Steck, Mabel             | Sutherland, Neb.        |
| Steele, James H.         | Denver, Colo.           |
| Steele, Vera             | Mangun, Okla.           |
| Steffan, Eliza K.        | Denver, Colo.           |
| Steidley, Lurene         | Fort Collins, Colo.     |
| Stephens, Gertrude A.    | Denver, Colo.           |
| Stevens, C. E.           | Greeley, Colo.          |
| Stevens, Maude F.        | Eureka, Kan.            |
| Stevenson, Jessica       | Greeley, Colo.          |
| Stewart, C. E.           | Akron, Colo.            |
| Stewart, Ruth            | Loveland, Colo.         |
| Sridham, Oleta           | Checotah, Okla.         |
| Steidley, Hubert A.      | Greeley, Colo.          |
| Straley, Fae             | La Salle, Colo.         |
| Stock, Sister Geraldine  | Denver, Colo.           |
| Stockdale, Martha        | Colorado Springs, Colo. |
| Stockover, Julia         | Greeley, Colo.          |
| Stolt, Edna B.           | Odebolt, Iowa           |
| Storrie, Robline C.      | Denver, Colo.           |
| Stower, Veda             | Kimball, Neb.           |
| Stratton, Eva B.         | Wichita Falls, Texas    |
| Stroh, Mabel             | Milliken, Colo.         |
| Studle, Nelle M.         | Beuna Vista, Colo.      |
| Sturbaum, Lerna          | Iliff, Colo.            |
| Sturgeon, Katherine      | Pierce, Colo.           |
| Stuthiet, Marie          | LaFayette, Colo.        |
| Sublette, Minnie         | Nebraska City, Neb.     |
| Suitor, Florence         | Alma, Neb.              |
| Sullivan, Imogene        | Wagoner, Okla.          |
| Sullivan, Kathryn        | Exeter, Neb.            |
| Sumner, Ruth             | Greeley, Colo.          |
| Sullivan, Vera           | Greeley, Colo.          |
| Sutherland, Marie        | Marion, Ill.            |



|                              |                       |
|------------------------------|-----------------------|
| Swain, Lottie .....          | Brighton, Colo.       |
| Sweeney, Margaret .....      | Silt, Colo.           |
| Swanson, Alice S. ....       | Rockford, Ill.        |
| Swofford, Annie .....        | Palisade, Colo.       |
|                              |                       |
| Taylor, Archibald L. ....    | Longmont, Colo.       |
| Taylor, Bettie May .....     | Fort Worth, Texas     |
| Taylor, Della .....          | New Raymer, Colo.     |
| Taylor, Dorothy .....        | Shaw, Colo.           |
| Taylor, Frances M. ....      | Owensboro, Ky.        |
| Taylor, Nettie .....         | Del Norte, Colo.      |
| Taylor, Ruth .....           | La Junta, Colo.       |
| Taylor, Sadie A. ....        | Cheyenne, Wyo.        |
| Taylor, Zora .....           | New Raymer, Colo.     |
| Temple, Olney .....          | Fort Worth, Texas     |
| Templeman, Alma .....        | Berthoud, Colo.       |
| Terry, Clara .....           | Norfolk, Neb.         |
| Terry, Ethel .....           | Norfolk, Neb.         |
| Terry, Florence .....        | Hobart, Okla.         |
| Terry, Florence .....        | Green City, Mo.       |
| Thaxton, Ruth .....          | Mason, Texas          |
| Thibert, Cloe .....          | Duluth, Minn.         |
| Thiess, Hannah J. ....       | Julesburg, Colo.      |
| Thomas, Anna S. ....         | Meeker, Colo.         |
| Thomas, Dora .....           | Manzanola, Colo.      |
| Thomas, Frieda .....         | Morrill, Neb.         |
| Thomas, Jessie .....         | Big Piney, Wyo.       |
| Thomason, Emma .....         | Quincy, Ill.          |
| Thomson, Eleanor M. ....     | Duluth, Minn.         |
| Thom on, Jean .....          | Duluth, Minn.         |
| Thompson, June E. ....       | Grand Junction, Colo. |
| Thompson, Maurine .....      | Vinita, Okla.         |
| Thompson, Thelma .....       | Granfield, Okla.      |
| Thorne, Martha M. ....       | Walsenburg, Colo.     |
| Tibbets, Blanche .....       | Greeley, Colo.        |
| Tidball, Elizabeth .....     | Denver, Colo.         |
| Til on, Vera .....           | St. Joseph, Mo.       |
| Tintle, Mary .....           | Edgewater, Colo.      |
| Todd, Alice .....            | Manitou, Colo.        |
| Todd, Katherine .....        | Greeley, Colo.        |
| Todd, Marguerite .....       | Birmingham, Ala.      |
| Toothaker, Archie .....      | Craig, Colo.          |
| Tope, Lena .....             | Greeley, Colo.        |
| Torrans, Mabel .....         | Checotah, Okla.       |
| Town, Geraldine .....        | Greeley, Colo.        |
| Tracy, Fern .....            | Levant, Kan.          |
| Tracy, Lola .....            | Cheyenne, Okla.       |
| Trego, Lillian .....         | Halstead, Kan.        |
| Trien, Emma .....            | Kersey, Colo.         |
| Troller, Antonette .....     | Rockford, Ill.        |
| Tubbs, Myrtle L. ....        | Breckenridge, Colo.   |
| Tubbs, Ruth H. ....          | Denver, Colo.         |
| Turrell, Anna B. ....        | Greeley, Colo.        |
| Tuttle, Caroline .....       | Oklahoma City, Okla.  |
| Tuttle, Pluma .....          | Denver, Colo.         |
| Tweeddah, Hannah .....       | Trinidad, Colo.       |
| Tyler, Jessie L. ....        | Fredonia, Kan.        |
| Tyler, Ruth .....            | Boulder, Colo.        |
| Tyrrell, Harriett .....      | Eufaulfa, Okla.       |
| Tyrrell, Mrs. Lola .....     | Eufaulfa, Okla.       |
|                              |                       |
| Underhill, Thelma .....      | Denver, Colo.         |
| Underwood, Helen C. ....     | Canon City, Colo.     |
| Uris, Nellie W. ....         | Westboro, Wis.        |
| Utter, Minne A. ....         | Lamar, Colo.          |
|                              |                       |
| Valliet, Genevieve .....     | Gowanda, Colo.        |
| VanAntwerp, Sara .....       | Scott City, Kans.     |
| VanBuddenbook, Dena .....    | Trinidad, Colo.       |
| Vance, Irene .....           | Beattie, Kans.        |
| Vancil, Cordelia .....       | Edinburg, Ill.        |
| Van Eps, Ethel .....         | Moorland, Iowa.       |
| Van Fradenburg, Mary .....   | Manassa, Colo.        |
| VanSant, Bernice .....       | Loveland, Colo.       |
| Vandiver, Maude .....        | Montrose, Colo.       |
| Van Metre, Isabella .....    | Weldona, Colo.        |
| Van Meter, Mamie .....       | Weldona, Colo.        |
| VanVoorhies, Elizabeth ..... | Arvada, Colo.         |
| VanRansselaer, Leona .....   | Council Bluffs, Iowa. |
| Vaughn, Helen Marie .....    | Greeley, Colo.        |
| Vaughn, Pauline .....        | Greeley, Colo.        |
| Veazy, Isabelle .....        | Alva, Okla.           |

|                         |                         |
|-------------------------|-------------------------|
| Vecchio, Teresina       | Trinidad, Colo.         |
| Verhaussen, Alexander   | Burlington, Colo.       |
| Veyra, Fortunato de     | Philippine Islands      |
| Vestenz, Florence       | Loveland, Colo.         |
| Vick, Nellie            | East Moline, Ill.       |
| Vickers, Edith          | Denver, Colo.           |
| Vigor, Edythe           | Berthoud, Colo.         |
| Visser, Birdie M.       | Hutchison, Kans.        |
| Vivian, Edith E.        | Denver, Colo.           |
| Vorhies, Emma S.        | Laveta, Colo.           |
| Voris, Mrs. Hessie      | Greeley, Colo.          |
| Voshell, Cecil M.       | McPherson, Kans.        |
| Waddle, Alcee A.        | Cherry Valley, Ill.     |
| Wagner, Josephine       | Gowanda, Colo.          |
| Wagner, Lena            | Kit Carson, Colo.       |
| Wagner, Marguerite      | Gowanda, Colo.          |
| Wailles, Mabel Iola     | Boulder, Colo.          |
| Wald, Cleva             | Hartley, Iowa           |
| Waldhauser, Dorothy L.  | Greeley, Colo.          |
| Wall, A. J.             | Manzanola, Colo.        |
| Wall, J. F.             | Greeley, Colo.          |
| Wallace, A. Mae         | Greeley, Colo.          |
| Walker, Edith           | Simla, Colo.            |
| Walker, Gertrude        | Randolph, Ia.           |
| Walker, Irene           | Randolph, Ia.           |
| Walker, Lillian         | Denton, Texas.          |
| Walsh, Cecilia M.       | Greeley, Colo.          |
| Walsh, Delia            | Cripple Creek, Colo.    |
| Walsh, Fern Ellen       | Greeley, Colo.          |
| Walt, Mrs. Mary         | Milliken, Colo.         |
| Walters, Sadie          | Denver, Colo.           |
| Walters, Mary E.        | Arriba, Colo.           |
| Walter, Nellie          | Greeley, Colo.          |
| Waltman, Frances        | Corsicana, Tex.         |
| Walton, Blanche         | Walsenburg, Colo.       |
| Walworth, Mabel         | Omaha, Nebr.            |
| Wantland, Montressa     | Chickashaw, Okla.       |
| Ward, Alice T.          | Denver, Colo.           |
| Ward, Sue D.            | Denver, Colo.           |
| Warford, Nell           | Chickashaw, Okla.       |
| Warman, Bertha          | Rocky Ford, Colo.       |
| Warner, Mary            | Concrete, Colo.         |
| Warung, Ethel M.        | Beaumont, Tex.          |
| Waterfield, Minerva     | Red Lion, Colo.         |
| Watkins, Emma           | Williamsburg, Ia.       |
| Watts, Lillie E.        | Greeley, Colo.          |
| Watts, Pearle           | Sumner, Texas           |
| Watt, Virginia          | Denver, Colo.           |
| Wear, Millie            | Friend, Neb.            |
| Weathers, Nellie        | Lawton, Okla.           |
| Weaver, Virginia        | Magnolia, Ark.          |
| Webb, John A.           | Greeley, Colo.          |
| Webster, Margaret       | Paris, Tex.             |
| Webster, Mary E.        | Dallas, Tex.            |
| Webb, Mrs. Elba         | Greeley, Colo.          |
| Weckers, Edna           | Denver, Colo.           |
| Weedon, Della           | Tarkio, Mo.             |
| Weeks, Edamay           | Cherokee, Okla.         |
| Weirick, Edna Genevieve | Denver, Colo.           |
| Welch, Millie Ann       | Estlake, Colo.          |
| Wellington, Esther L.   | Edwards, Colo.          |
| Wells, Claude           | Yuma, Colo.             |
| Wells, Louise Jane      | Denver, Colo.           |
| Wells, Maude            | Greeley, Colo.          |
| Welsh, Fern Allen       | Greeley, Colo.          |
| Werkheiser, Ruth        | Greeley, Colo.          |
| Werick, Helen           | Denver, Colo.           |
| West, Lucy              | Pueblo, Colo.           |
| West, Frances           | Akron, Colo.            |
| West, Nell Jabe         | Chickashaw, Okla.       |
| Wetzell, Gertrude       | Checotah, Okla.         |
| Weick, Helen            | Denver, Colo.           |
| Wheeler, Ella B.        | Ft. Morgan, Colo.       |
| Whetzel, Mildred        | Pueblo, Colo.           |
| White, Audrey           | Longmont, Colo.         |
| White, Burk             | Vinita, Okla.           |
| White, Clara            | Nashville, Ark.         |
| White, Edna             | Highman Mills, Mo.      |
| White, Ethel            | Highman Mills, Mo.      |
| White, Flossie          | Flagler, Colo.          |
| White, Mrs. Golda       | Wiley, Colo.            |
| White, Mrs. Julia M.    | Denver, Colo.           |
| White, Mable A.         | Colorado Springs, Colo. |

|                             |       |                         |
|-----------------------------|-------|-------------------------|
| White, Mrs. Mabel A.        | ..... | Greeley, Colo.          |
| White, May                  | ..... | Colorado Springs, Colo. |
| White, Iva                  | ..... | St. Joseph, Mo.         |
| Whitaker, Viola             | ..... | Fremont, Neb.           |
| Whitehead, Sarah R.         | ..... | Denver, Colo.           |
| Whitley, Mona               | ..... | Boulder, Colo.          |
| Whitten, Florence           | ..... | Gill, Colo.             |
| Wiebking, Mrs. Edith        | ..... | Greeley, Colo.          |
| Wilcox, Frances E.          | ..... | Salida, Colo.           |
| Wiley, Bernice              | ..... | Sedan, N. M.            |
| Wiley, Louva Lee            | ..... | Clayton, N. M.          |
| Wiley, Lula M.              | ..... | Colorado Springs, Colo. |
| Wilkerson, R. A.            | ..... | LaGrande, Ore.          |
| Wilkinson, Nan D.           | ..... | Colorado Springs, Colo. |
| Williams, Edythe            | ..... | Sciotoville, Ohio       |
| Williams, Frances           | ..... | Trinidad, Colo.         |
| Williams, Lona              | ..... | Greeley, Colo.          |
| Williams, Lorraine          | ..... | Central City, Colo.     |
| Williams, Mabel F.          | ..... | Trinidad, Colo.         |
| Williams, Mrs. Mabelle      | ..... | Willis, Kan.            |
| Williams, Mabelle           | ..... | Ft. Morgan, Colo.       |
| Williams, Sarah             | ..... | Sterling, Colo.         |
| Wilson, Allene              | ..... | Ellsworth, Kan.         |
| Wilson, Alma                | ..... | Greeley, Colo.          |
| Wilson, Anna                | ..... | St. Joseph, Mo.         |
| Wilson, Christina           | ..... | Taylor, Tex.            |
| Wilson, Daisy S.            | ..... | Hazleton, Ida.          |
| Wilson, Genevieve           | ..... | Milliken, Colo.         |
| Wilson, Irma                | ..... | Georgetown, Tex.        |
| Wilson, James H.            | ..... | Rocky Ford, Colo.       |
| Wilson, John                | ..... | Hazleton, Ida.          |
| Wilson, Josephine           | ..... | Dallas, Tex.            |
| Wilson, Kathryn             | ..... | Denver, Colo.           |
| Wilson, M. Helen            | ..... | Greeley, Colo.          |
| Wilson, Mary E.             | ..... | Orangeville, Ills.      |
| Winans, Charlotte           | ..... | Longmont, Colo.         |
| Winchester, I. Albert       | ..... | Denver, Colo.           |
| Winger, Mrs. Elsie          | ..... | Hugo, Colo.             |
| Winston, Florence           | ..... | Sterling, Colo.         |
| Winston, Grace              | ..... | Alva, Okla.             |
| Wiseman, Ada                | ..... | Madison, Minn.          |
| Wiseman, Bessie             | ..... | Denver, Colo.           |
| Wisroth, Minnie             | ..... | Ft. Morgan, Colo.       |
| Wolfe, Mary D.              | ..... | Colorado Springs, Colo. |
| Wolfe, Rose                 | ..... | Loveland, Colo.         |
| Wood, Vera                  | ..... | Scotts Bluffs, Nebr.    |
| Woodward, Emma D.           | ..... | Greeley, Colo.          |
| Woodward, Gretta            | ..... | Greeley, Colo.          |
| Woodward, Louise            | ..... | Saguache, Colo.         |
| Woods, Norella M.           | ..... | Dallas, Tex.            |
| Wooley, Ida                 | ..... | Burden, Kan.            |
| Womelsdorf, Bertha N.       | ..... | Quincy, Ills.           |
| Work, Mary A.               | ..... | Ft. Morgan, Colo.       |
| Worrall, Laverne B.         | ..... | Simla, Colo.            |
| Wortman, Helen C.           | ..... | Commerce, Okla.         |
| Woodward, Jessie            | ..... | Coleman, Tex.           |
| Wray, Jewell                | ..... | Fredonia, Kan.          |
| Wren, Elizabeth             | ..... | Siebert, Colo.          |
| Wright, Edna Faye           | ..... | Greeley, Colo.          |
| Wright, Edna                | ..... | Higbee, Colo.           |
| Wright, Ethel               | ..... | Greeley, Colo.          |
| Wright, Muriel              | ..... | Cherokee, Okla.         |
| Wright, Sarah M.            | ..... | Buena Vista, Colo.      |
| Wrinkle, William            | ..... | Greeley, Colo.          |
| Wylie, Sara J.              | ..... | Plattville, Colo.       |
|                             |       |                         |
| Yoder, Ruth A.              | ..... | Omaha, Nebr.            |
| Yost, Cynthia               | ..... | Walsenburg, Colo.       |
| Young, George P.            | ..... | Evans, Colo.            |
| Yungat, Ina L.              | ..... | Hugo, Colo.             |
|                             |       |                         |
| Zahn, Lydia                 | ..... | Stanton, Nebr.          |
| Zapf, Frieda                | ..... | Greeley, Colo.          |
| Ziegler, Helen Eliz.        | ..... | Ellsworth City, Penn.   |
| Zeigler, Edith A.           | ..... | Colorado Springs, Colo. |
| Zoller, Sister Rose Cecilia | ..... | Denver, Colo.           |

## School of Adults

Fall, Winter, and Spring Quarters

1920-1921

|                              |                     |
|------------------------------|---------------------|
| Absher, Blanche .....        | Greeley, Colo.      |
| Armogost, Donald .....       | Fosston, Colo.      |
| Beers, Caral J. ....         | Hillsdale, Wyo.     |
| Blake, Myrtle .....          | Casper, Wyo.        |
| Chamberlain, Rex .....       | Greeley, Colo.      |
| Clark, Mrs. Lulu .....       | Bushnell, Colo.     |
| Cockerill, Ella .....        | Greeley, Colo.      |
| Crocker, Altous .....        | La Salle, Colo.     |
| Etheredge, Ellis .....       | Greeley, Colo.      |
| Grant, Allister .....        | Evans, Colo.        |
| Hooper, Frances .....        | Denver, Colo.       |
| Johnson, Herbert O. ....     | Kansas City, Mo.    |
| Jones, Mabel L. ....         | Greeley, Colo.      |
| Kamm, Melvin .....           | Yuma, Colo.         |
| Kent, Myrtle .....           | Greeley, Colo.      |
| Littler, Ray N. ....         | Fort Collins, Colo. |
| McNeel, Georgia .....        | North Platte, Neb.  |
| Morgan, Hayden .....         | Wakenny, Kan.       |
| Nolte, George .....          | Greeley, Colo.      |
| Oberg, Lester .....          | Fort Collins, Colo. |
| Parsons, Lillian .....       | Ault, Colo.         |
| Sears, Herbert W. ....       | Greeley, Colo.      |
| Singer, Dorothy .....        | Haswell, Colo.      |
| Smith, Estella .....         | Evans, Colo.        |
| Spencer, Verlin .....        | Briggisdale, Colo.  |
| Swain, Martha .....          | La Junta, Colo.     |
| Taylor, Mrs. Josephine ..... | Denver, Colo.       |
| Tibbets, Blanche .....       | Greeley, Colo.      |
| Todd, Edith .....            | Del Norte, Colo.    |
| Wallace, Irene .....         | Firstone, Colo.     |
| White, Mabel A. ....         | Greeley, Colo.      |

### Summer Quarter

|                           |                 |
|---------------------------|-----------------|
| Anderson, Hazel .....     | Meeker, Colo.   |
| Anderson, Rosa W. ....    | Meeker, Colo.   |
| Alexander, Laura .....    | Vona, Colo.     |
| Almack, Lolita .....      | Eads, Colo.     |
| Axson, Byrl .....         | Denova, Colo.   |
| Baker, Mrs. E. P. ....    | Wheatland, Wyo. |
| Barnes, Lorna .....       | Genoa, Colo.    |
| Barnett, Bertha Mrs. .... | Greeley, Colo.  |
| Barry, Catherine .....    | Cimarron, N. M. |
| Bartholomew, Marie .....  | Haigler, Nebr.  |

|                              |                       |
|------------------------------|-----------------------|
| Bartram, Edith .....         | Stoneham, Colo.       |
| Beggs, Ovella .....          | Fort Morgan, Colo.    |
| Behrens, Ruth .....          | Greeley, Colo.        |
| Benning, Verna .....         | Portsmouth, Iowa.     |
| Benway, Grace .....          | Greeley, Colo.        |
| Berminger, Emma L. ....      | Delta, Colo.          |
| Bieri, Louise .....          | Denver, Colo.         |
| Blake, Myrtle .....          | Casper, Wyo.          |
| Bohannon, Katherine .....    | Trinidad, Colo.       |
| Bond, Dorothy .....          | Edgewater, Colo.      |
| Boyer, Eva .....             | Greeley, Colo.        |
| Bridge, Ruth .....           | Campo, Colo.          |
| Brown, Lillie .....          | Kanorado, Kan.        |
| Buckle, R. W. ....           | Gallipolis, Colo.     |
| Burd, Gladys .....           | Kanorado, Kan.        |
| Callahan, Hilda .....        | Orchard, Colo.        |
| Carlson, Hilda .....         | Orchard, Colo.        |
| Church, Alice .....          | Broomfield, Colo.     |
| Cissna, Anjel .....          | Greeley, Colo.        |
| Collins, Mary Ellen .....    | Silver Plume, Colo.   |
| Colomber, Wilma .....        | Aurora, Colo.         |
| Cox, Bertha .....            | Arriba, Colo.         |
| Craig, Nannie .....          | Brush, Colo.          |
| Cramer, Louise .....         | Wray, Colo.           |
| Cruickshank, Zola .....      | Seibert, Colo.        |
| Davis, Lucinda .....         | Ness City, Kan.       |
| Davidson, Mabel .....        | Greeley, Colo.        |
| De Haan, Leila .....         | Fort Morgan, Colo.    |
| Detrick, Luella .....        | Arriba, Colo.         |
| Dinsmoor, Hazel .....        | Buckingham, Colo.     |
| Dodge, Veda .....            | Akron, Colo.          |
| Dove, Floy .....             | Adair, Iowa.          |
| Ebbs, Ethel .....            | Fruitland Park, Flor. |
| Elliott, Alice .....         | Fredonia, Kan.        |
| Elsesser, Henry .....        | Eaton, Colo.          |
| Emery, Grace .....           | Longmont, Colo.       |
| Estep, Lucille .....         | Trinidad, Colo.       |
| Evans, Cecil .....           | Brush, Colo.          |
| Fender, Mrs. Grace .....     | Ionia, Kan.           |
| Ferguson, Mabel .....        | Benld, Ills.          |
| Ferree, Ruby .....           | Sugar City, Colo.     |
| Fiscus, Nellie .....         | New Raymer, Colo.     |
| Fetcher, Doris .....         | Siloam Springs, Ark.  |
| Glenn, Lottie .....          | Siloam Springs, Ark.  |
| Glenn, Una .....             | Siloam Springs, Ark.  |
| Goodman, Mrs. Helena T. .... | Greeley, Colo.        |
| Goodyear, Myrtle .....       | La Porte, Colo.       |
| Griffin, Gertrude .....      | Platteville, Colo.    |
| Hadley, Hubert .....         | Willispoints, Tex.    |
| Hahn, Effie .....            | Wray, Colo.           |
| Harper, Winnifred .....      | Numa, Iowa.           |
| Harris, Bonnie .....         | Osage, Ark.           |
| Harris, Grace .....          | Akron, Colo.          |
| Hartwig, Frieda .....        | Sligo, Colo.          |
| Hendricks, Emma .....        | Longmont, Colo.       |
| Herrmann, Lewis .....        | Denver, Colo.         |
| Higgason, Genevieve .....    | Cope, Colo.           |
| Hill, Marion .....           | Burdett, Colo.        |
| Houghland, Allie .....       | Siebert, Colo.        |
| Hudiburgh, Mamie .....       | Esbon, Kan.           |
| Huff, Ruth .....             | Akron, Colo.          |
| Jenkins, Grace .....         | Greeley, Colo.        |
| Johanning, Emma .....        | Dutzow, Mo.           |
| Johnson, Hazel .....         | Arriba, Colo.         |
| Johnson, Elma .....          | Fort Lupton, Colo.    |
| Jones, Brilla .....          | Denver, Colo.         |
| Jones, Sallie Lee .....      | Wellington, Colo.     |
| Keeling, Mrs. Pearl .....    | Buckingham, Colo.     |
| Kent, Myrtle .....           | Greeley, Colo.        |

|                           |                    |
|---------------------------|--------------------|
| Koeneke, Hilda .....      | Fort Morgan, Colo. |
| Kohlman, Mattie .....     | Vernon, Colo.      |
| Krum, Myrtle .....        | Keota, Colo.       |
| Landes, Amanda .....      | Walsenburg, Colo.  |
| Lee, Lillie .....         | Calhan, Colo.      |
| Lentz, Christine .....    | Mesita, Colo.      |
| Logan, Martha .....       | Canon City, Colo.  |
| Lutz, Leila P. ....       | Atwood, Colo.      |
| McCallum, Addie .....     | Arriba, Colo.      |
| McMorrow, Clare .....     | Leadville, Colo.   |
| McNew, Grace .....        | Greeley, Colo.     |
| McNew, Ruth .....         | Greeley, Colo.     |
| Maggill, Doshia .....     | Arriba, Colo.      |
| Mohatt, Clara .....       | Sidney, Neb.       |
| Mohatt, Margaret .....    | Sidney, Neb.       |
| Mohler, Esther .....      | Rexford, Kan.      |
| Moore, Margeret E. ....   | Fort Lupton, Colo. |
| Morgan, Hayden .....      | Wakeney, Kan.      |
| Nutter, K. Mae .....      | Joes, Colo.        |
| Otten, Maude .....        | Brandon, Colo.     |
| Page, Mrs. Cora .....     | Greeley, Colo.     |
| Parker, Mrs. Irene .....  | Clark, Colo.       |
| Popham, Gladys .....      | Minneapolis, Kan.  |
| Presler, Florence .....   | Orafinzo, Neb.     |
| Probasco, Zelma .....     | Flagler, Colo.     |
| Putman, Lotta .....       | Eabon, Kan.        |
| Randle, Theo. ....        | Hartman, Colo.     |
| Ray, Katherine .....      | Greeley, Colo.     |
| Reddington, Orville ..... | Stratton, Colo.    |
| Reed, Delia .....         | Fort Lupton, Colo. |
| Reeves, Mrs. Sallie ..... | Earl, Colo.        |
| Reichley, Frances .....   | Grover, Colo.      |
| Robbins, Dora .....       | Jefferson, Colo.   |
| Robinson, Mildred .....   | Keota, Colo.       |
| Rowland, Bernice .....    | Granada, Colo.     |
| Sanbo, Helen .....        | Denver, Colo.      |
| Sawyer, Pearl .....       | Newman Grove, Neb. |
| Seastrand, Agnes .....    | Greeley, Colo.     |
| Sell, Mrs. N. F. ....     | St. Joseph, Mo.    |
| Semler, Howard .....      | Muscatine, Iowa    |
| Shaffer, Mrs. Ida .....   | Greeley, Colo.     |
| Spargur, V. W. ....       | Kimball, Neb.      |
| Spencer, Ida .....        | Towner, Colo.      |
| Stalgren, Pearl .....     | Kanorado, Kan.     |
| Stephens, Frank A. ....   | Argo, Colo.        |
| Stephens, Irene .....     | Fairplay, Colo.    |
| Strickland, Eloise .....  | Pueblo, Colo.      |
| Swearington, Mae .....    | Greeley, Colo.     |
| Van Wyke, Nellie .....    | Kersey, Colo.      |
| Viechelli, Angelina ..... | Sopris, Colo.      |
| Walton, Blanche .....     | Payette, Idaho     |
| Ware, Amy .....           | Greeley, Colo.     |
| Warren, Jessie E. ....    | Nunn, Colo.        |
| White, Ivle L. ....       | New Raymer, Colo.  |
| Whitney, Frank A. ....    | Trinidad, Colo.    |
| Whitney, Maybelle .....   | Greeley, Colo.     |
| Wood, Elizabeth .....     | Bristol, Colo.     |
| Woods, Leah .....         | Hennesy, Okla.     |
| Wrenn, Roberta .....      | Siebert, Colo.     |
| Wylie, Helen M. ....      | Platteville, Colo. |
| Yeoman, Gertrude .....    | Greeley, Colo.     |



## Extension Enrollment

1920-21

(Group Plan)

|                            |                                 |
|----------------------------|---------------------------------|
| Alpert, Ethel .....        | Denver, Colo.                   |
| Allison, Grace E. ....     | Denver, Colo.                   |
| Anderson, Marceline .....  | Grand Junction, Colo.           |
| Anderson, Edna .....       | Denver, Colo.                   |
| Anthony, Hazel .....       | Denver, Colo.                   |
| Arnold, Gladys P. ....     | 445 S. Grant, Denver, Colo.     |
| Adams, Cirdie .....        | Pueblo, Colo.                   |
| Ahlberg, Ingrid .....      | Pueblo, Colo.                   |
| Allott, Mrs. Bertha .....  | Pueblo, Colo.                   |
| Allphin, Helen .....       | Denver, Colo.                   |
| Anderson, Blanche .....    | Canon City, Colo.               |
| Angel, Bryde .....         | 1523 So. Lincoln, Denver, Colo. |
| Ashley, Kate .....         | Denver, Colo.                   |
|                            |                                 |
| Baker, Katherine .....     | Denver, Colo.                   |
| Barreson, Viola .....      | 4341 E. Colfax, Denver, Colo.   |
| Beall, Eva .....           | 716 S. Logan, Denver, Colo.     |
| Baird, Nellie .....        | 513 E. 2nd, Trinidad, Colo.     |
| Balyeat, Gertrude .....    | Denver, Colo.                   |
| Becker, Lillie .....       | Denver, Colo.                   |
| Barber, Clara P. ....      | 2528 Eaton St., Denver, Colo.   |
| Bartholemew, R. R. ....    | La Junta, Colo.                 |
| Bergstrand, Nellie .....   | Denver, Colo.                   |
| Bentley, Mary E. ....      | Denver, Colo.                   |
| Bradley, Margaret .....    | Denver, Colo.                   |
| Bramkamp, Ethel .....      | Denver, Colo.                   |
| Blair, Minnie .....        | Denver, Colo.                   |
| Boge, Mabel .....          | Denver, Colo.                   |
| Boge, Ethel .....          | Denver, Colo.                   |
| Bohn, Nellie .....         | Denver, Colo.                   |
| Bonham, Ruth Ann .....     | Denver, Colo.                   |
| Bonham, Bonnie .....       | Denver, Colo.                   |
| Bowen, Bertha .....        | La Junta, Colo.                 |
| Boyle, Frances .....       | 732 Lillotson, Trinidad, Colo.  |
| Boyle, Helen .....         | 732 Lillotson, Trinidad, Colo.  |
| Bowman, Inda F. ....       | Denver, Colo.                   |
| Burrows, Katherine .....   | La Junta, Colo.                 |
| Bench, Ruth .....          | Pueblo, Colo.                   |
| Berlinger, Belle .....     | Pueblo, Colo.                   |
| Bertagnoli, Mrs. Mae ..... | 1014 So. Penn., Denver, Colo.   |
| Berkowitz, Rose .....      | Pueblo, Colo.                   |
| Blaisdell, Edna .....      | Grand Junction, Colo.           |
| Bobo, Mildred .....        | 1429 Cherokee, Denver, Colo.    |
| Boering, Maude .....       | Pueblo, Colo.                   |
| Bovier, Agnette .....      | 3832 Clay St., Denver, Colo.    |
| Boyle, Elizabeth .....     | Canon City, Colo.               |
| Bradley, Ruby .....        | Pueblo, Colo.                   |
| Bradley, Margaret .....    | 757 Williams, Denver, Colo.     |
| Breed, Olive .....         | Denver, Colo.                   |
| Brinker, Olivia .....      | 2146 Galyord, Denver, Colo.     |
| Brooks, Idabelle .....     | Greeley, Colo.                  |
| Buck, Nellie .....         | Grand Junction, Colo.           |
| Buck, Nellie .....         | Denver, Colo.                   |
| Buecker, Anna .....        | Pueblo, Colo.                   |
| Burge, Mrs. Eula .....     | Pueblo, Colo.                   |
|                            |                                 |
| Carson, Myra .....         | Denver, Colo.                   |
| Chapin, Virginia .....     | Denver, Colo.                   |
| Cannon, Brenda .....       | Denver, Colo.                   |
| Carne, Mildred .....       | Denver, Colo.                   |
| Cabeen, Anna .....         | La Junta, Colo.                 |
| Charline, Catherine .....  | Denver, Colo.                   |
| Champion, Edith .....      | Denver, Colo.                   |
| Childers, Edith .....      | Loveland, Colo.                 |
| Cadwell, Gladys .....      | Canon City, Colo.               |
| Cain, M-rtha .....         | 4423 Zuni St., Denver, Colo.    |
| Clark, Florence .....      | Denver, Colo.                   |
| Comin, Mary .....          | Greeley, Colo.                  |
| Connelley, Kate .....      | Denver, Colo.                   |
| Cochran, Grace .....       | Greeley, Colo.                  |
| Craig, Edna M. ....        | Denver, Colo.                   |
| Cushing, Martha .....      | Denver, Colo.                   |
| Cunningham, Daisy .....    | Denver, Colo.                   |
| Currie, Mary Neil .....    | Denver, Colo.                   |
| Cullen, Nellie .....       | Grand Junction, Colo.           |

|                             |                                  |
|-----------------------------|----------------------------------|
| Carson, Henrietta .....     | Canon City, Colo.                |
| Carson, Mary .....          | Denver, Colo.                    |
| Crownover, Mayme .....      | Plymouth Hotel, Denver, Colo.    |
| Claffin, Mrs. Madge .....   | Canon City, Colo.                |
| Cleave, Helen .....         | 1725 Gaylord, Denver, Colo.      |
| Cochran, Mrs. Chas. ....    | Pueblo, Colo.                    |
| Conesny, Heor .....         | 1630 Jackson, Denver, Colo.      |
| Coyle, Dena .....           | Pueblo, Colo.                    |
| Curtis, Bessie .....        | Pueblo, Colo.                    |
|                             |                                  |
| Daily, Grace .....          | Denver, Colo.                    |
| Dailey, Minnie .....        | Denver, Colo.                    |
| Daniels, Mrs Winifred ..... | Denver, Colo.                    |
| Davis, Willis .....         | La Junta, Colo.                  |
| Deavy, Mary .....           | Denver, Colo.                    |
| Devereaux, Rena .....       | Greeley, Colo.                   |
| Dickman, Antje .....        | Denver, Colo.                    |
| Dopke, Ann .....            | La Junta, Colo.                  |
| Duboff, Sarah .....         | Denver, Colo.                    |
| Duboff, Anna .....          | Denver, Colo.                    |
| Deita, Bessie .....         | Denver, Colo.                    |
| Danna, Estella .....        | Denver, Colo.                    |
| Davidson, Marie .....       | Denver, Colo.                    |
| Davis, Helen .....          | 1144 York, Denver, Colo.         |
| Day, Louie .....            | Denver, Colo.                    |
| DeLaw, Anna .....           | Grand Junction, Colo.            |
| Dockery, Mrs. Emma .....    | Pueblo, Colo.                    |
| Doland, Florence .....      | 1444 Lafayette, Denver, Colo.    |
| Duffer, Martha .....        | 1566 Washington, Denver, Colo.   |
| Duffy, Mary D. ....         | Denver, Colo.                    |
| Dupez, Genevieve .....      | Grand Junction, Colo.            |
| Dyer, Mrs. Anna .....       | Pueblo, Colo.                    |
|                             |                                  |
| Eagleton, Maude .....       | Denver, Colo.                    |
| Ellis, Carolyn .....        | La Junta, Colo.                  |
| Elmer, Mary C. ....         | Greeley, Colo.                   |
| Ervin, Anna .....           | Denver, Colo.                    |
| Ellis, Elizabeth .....      | Denver, Colo.                    |
| Endicotte, Florence .....   | Canon City, Colo.                |
| Engleman, Mrs. Bonnie ..... | Pueblo, Colo.                    |
| English, Mrs. Evelyn .....  | Grand Junction, Colo.            |
| Engleton, W. H. ....        | Denver, Colo.                    |
| Erwin, J. M. ....           | Box 13, Denver, Colo.            |
| Ethell, Charity .....       | 1607 E. 17th Ave., Denver, Colo. |
|                             |                                  |
| Farthing, Martha .....      | La Junta, Colo.                  |
| Ferguson, Lillian .....     | 221 Animas, Trinidad, Colo.      |
| Flath, Lucy .....           | Denver, Colo.                    |
| Floyd, Katherine .....      | Denver, Colo.                    |
| Fitson, Emme M. ....        | Denver, Colo.                    |
| Fisher, Laura .....         | Denver, Colo.                    |
| Finley, Grace .....         | Greeley, Colo.                   |
| Fink, Jessie A. ....        | Greeley, Colo.                   |
| Fisher, Bess M. ....        | Greeley, Colo.                   |
| Foote, Essie M. ....        | Grand Junction, Colo.            |
| Freedle, Alma .....         | La Junta, Colo.                  |
| Fintie, Mary .....          | Denver, Colo.                    |
| Frees, Anna M. ....         | Denver, Colo.                    |
| Fletcher, Mrs. Mary .....   | Denver, Colo.                    |
| Franks, Amelia .....        | 837 Lillotson, Trinidad, Colo.   |
| Fulton, Florence .....      | Denver, Colo.                    |
| Fuller, Genevieve .....     | La Junta, Colo.                  |
| Fallia, Edwina .....        | 637 Franklin, Denver, Colo.      |
| Fisher, Anna .....          | Denver, Colo.                    |
| Fogerberg, Nellie .....     | Pueblo, Colo.                    |
| Force, Anna L. ....         | 216 Sherman, Denver, Colo.       |
| Ford, Agnes .....           | Canon City, Colo.                |
| Foster, Artemesia .....     | Canon City, Colo.                |
| Foster, Lucy B. ....        | Denver, Colo.                    |
| Funk, Stella .....          | 1238 Madison, Denver, Colo.      |
|                             |                                  |
| Garnett, Genevieve .....    | Denver, Colo.                    |
| Garvin, Mac .....           | Denver, Colo.                    |
| Gedney, Beatrice .....      | Denver, Colo.                    |
| Gilfillan, Maude .....      | Denver, Colo.                    |
| Gillia, May .....           | Denver, Colo.                    |
| Gilmore, Angela .....       | 2938 Humboldt, Denver, Colo.     |
| Gleeson, Anna .....         | Denver, Colo.                    |
| Gose, Zoe D. ....           | Denver, Colo.                    |
| Goss, Mrs. Julia .....      | Denver, Colo.                    |
| Goss, Mrs. Robert .....     | Denver, Colo.                    |
| Gordan, Mrs. Winifred ..... | Denver, Colo.                    |

|                      |                         |                 |       |
|----------------------|-------------------------|-----------------|-------|
| Goodpasture, Lola    | 1214 Linden,            | Trinidad,       | Colo. |
| Greer, Ethel         |                         | Denver,         | Colo. |
| Gregory, Etta        |                         | Greeley,        | Colo. |
| Greenaire, Carolyn   |                         | Greeley,        | Colo. |
| Gustner, Mrs. Ethel  |                         | Denver,         | Colo. |
| Gust, Katherine      |                         | Denver,         | Colo. |
| Gaines, Louise       |                         | Pueblo,         | Colo. |
| Gaines, Mary         |                         | Pueblo,         | Colo. |
| Gayton, Mrs. Julia   |                         | Pueblo,         | Colo. |
| Giess, Florence      | 1629 Clarkson,          | Denver,         | Colo. |
| Gigax, Agnes         |                         | Grand Junction, | Colo. |
| Gigax, Mnnie         |                         | Grand Junction, | Colo. |
| Glenn, Ada           | 1666 Milwaukee,         | Denver,         | Colo. |
| Gleason, Mrs. Rhea   |                         | Pueblo,         | Colo. |
| Goebel, Jessie       | 3426 Federal Boulevard, | Denver,         | Colo. |
| Grace, Mamie         | 307 Grant,              | Denver,         | Colo. |
| Grant, Stella        |                         | Pueblo,         | Colo. |
| Gratz, Nina          |                         | Denver,         | Colo. |
| Greenlee, Ralph      |                         | Denver,         | Colo. |
| Griffith, Emily      |                         | Denver,         | Colo. |
| Griffiths, Elizabeth |                         | Canon City,     | Colo. |
| Groner, Mabel        | 1530 Grant,             | Denver,         | Colo. |
| Gurtner, Mrs. Ethel  | 1524 Fillmore,          | Denver,         | Colo. |
| Gurtner, Ethel       | 1524 Fillmore,          | Denver,         | Colo. |

|                        |               |                 |         |       |
|------------------------|---------------|-----------------|---------|-------|
| Hall, Grace B.         | 701 E. 14th,  | Denver,         | Colo.   |       |
| Hamlin, Grace          | 250 S. Logan, | Denver,         | Colo.   |       |
| Horton, Ada            |               | Delta,          | Colo.   |       |
| Hanes, Mabelle         |               | La Junta,       | Colo.   |       |
| Hansen, Katherine      |               | Denver,         | Colo.   |       |
| Hawthorne, Mrs. Bessie |               | Denver,         | Colo.   |       |
| Hedges, Cella M.       |               | Denver,         | Colo.   |       |
| Henen, C. M.           |               | La Junta,       | Colo.   |       |
| Heabler, Grace         |               | Denver,         | Colo.   |       |
| Heath, Edith V.        |               | Greeley,        | Colo.   |       |
| Higgins, Ada           |               | Rocky Ford,     | Colo.   |       |
| Holmes, Ethel          |               | Denver,         | Colo.   |       |
| Hollister, Evaline     |               | Grand Junction, | Colo.   |       |
| Hollander, Ethel H.    |               | Denver,         | Colo.   |       |
| Hollerin, Susan        |               | Ludlow,         | Colo.   |       |
| Home, Ethelda          |               | Cokedale,       | Colo.   |       |
| Huff, Raymond          | 211 E. 5th,   | Trinidad,       | Colo.   |       |
| Huffman, Merle         | 821 State,    | Trinidad,       | Colo.   |       |
| Humble, Mary           | 813 Park,     | Trinidad,       | Colo.   |       |
| Hunt, Adeline          |               | Greeley,        | Colo.   |       |
| Huntington, Alice      |               | Denver,         | Colo.   |       |
| Hadden, Esther         |               | Canon City,     | Colo.   |       |
| Haener, Esther         |               | Y. W. C. A.,    | Denver, | Colo. |
| Haines, Alice          |               | Pueblo,         | Colo.   |       |
| Hall, Mrs. Grace       | 701 E. 14th,  | Denver,         | Colo.   |       |

|                   |                |         |       |
|-------------------|----------------|---------|-------|
| Hawthorne, Mary   |                | Denver, | Colo. |
| Heabler, Grace    | 1085 Lowell,   | Denver, | Colo. |
| Holland, Ruth     |                | Denver, | Colo. |
| Holmes, Ethel     |                | Denver, | Colo. |
| Hook, Ruth        | 421 Ellsworth, | Denver, | Colo. |
| Hornberger, Etta  |                | Pueblo, | Colo. |
| Huntington, Abbie | 1123 Sherman,  | Denver, | Colo. |
| Huston, Mrs. Sara | 2138 Lowell,   | Denver, | Colo. |

|                   |                    |         |       |
|-------------------|--------------------|---------|-------|
| Inches, Anna      | Plymouth Hotel,    | Denver, | Colo. |
| Imboden, Jennie   |                    | Pueblo, | Colo. |
| Isabelle, Mary    | 1335 So. Pearl,    | Denver, | Colo. |
| Irving, Amelia D. | 1187 So. Clarkson, | Denver, | Colo. |

|                     |                   |                 |       |
|---------------------|-------------------|-----------------|-------|
| Jameson, Dora E.    |                   | Denver,         | Colo. |
| Johnson, Helen C.   | Box 191, Lovell,  | Wvo.            |       |
| Johnson, Mrs. Helen |                   | Denver,         | Colo. |
| Johnson, Hannah     |                   | Denver,         | Colo. |
| Johnson, Miss Verna | 138 So. Penn.,    | Denver,         | Colo. |
| Jacobson, Elsie     |                   | Canon City,     | Colo. |
| Jones, Bea          | 1130 Inca,        | Denver,         | Colo. |
| Jones, Grace        | 56 E. 3d,         | Denver,         | Colo. |
| Jones, Winifred     | 1615 Humboldt,    | Denver,         | Colo. |
| Johnson, Anna       | 3340 Hayward Pl., | Denver,         | Colo. |
| Johnson, Anna       | 1424 Williams,    | Denver,         | Colo. |
| Jorgenson, Olive    |                   | Grand Junction, | Colo. |

|                |  |           |       |
|----------------|--|-----------|-------|
| Keener, Bertha |  | Denver,   | Colo. |
| Kennedy, Clara |  | La Junta, | Colo. |
| Kennedy, Ethel |  | La Junta, | Colo. |

|                              |                              |
|------------------------------|------------------------------|
| Kimball, Phylis .....        | Greeley, Colo.               |
| Klein, Katherine .....       | La Junta, Colo.              |
| Krunier, Marie .....         | Denver, Colo.                |
| Kullgren, Hazel .....        | Denver, Colo.                |
| Knight, Alice .....          | Denver, Colo.                |
| Kruggler, Mary .....         | Pueblo, Colo.                |
| Keneham, Katherine .....     | Denver, Colo.                |
| Ketcham, Katherine .....     | Denver, Colo.                |
| Ketner, Sarah .....          | Denver, Colo.                |
| Kinport, J. Katherine .....  | 632 Downing, Denver, Colo.   |
|                              |                              |
| Lafferty, Edith .....        | Denver, Colo.                |
| Lambie, May .....            | Denver, Colo.                |
| Lambie, Jean .....           | Denver, Colo.                |
| Ladden, Gertrude .....       | Denver, Colo.                |
| Lawson, Bertha .....         | La Junta, Colo.              |
| Lawson, F ith .....          | La Junta, Colo.              |
| Lawson, Ella D. ....         | Denver, Colo.                |
| La Velle, Mary .....         | Denver, Colo.                |
| L Shier, Virginia .....      | Rocky Ford, Colo.            |
| LaShier Ethel .....          | Rocky Ford, Colo.            |
| Lewis, Mrs. Ivy .....        | Greeley, Colo.               |
| LaFever, Louise .....        | La Junta, Colo.              |
| Lord, Stella M. ....         | Denver, Colo.                |
| Lorghan, Loretta .....       | Denver, Colo.                |
| Lorgan, Anna .....           | Denver, Colo.                |
| Lander, Mrs. M. A. ....      | Denver, Colo.                |
| Lanning, C. W. ....          | Grand Junction, Colo.        |
| Larson, Ruth .....           | Grand Junction, Colo.        |
| Logna, Mrs. Margaret .....   | Canon City, Colo.            |
|                              |                              |
| McBride, Grace .....         | Denver, Colo.                |
| McClintlock, Mildred .....   | Denver, Colo.                |
| McClellan, Nelle .....       | Denver, Colo.                |
| McClune, Stella .....        | 575 Marion, Denver, Colo.    |
| McConnell, Katherine .....   | Canon City, Colo.            |
| McDowell, Agnes .....        | Pueblo, Colo.                |
| McGilve, Roy .....           | Denver, Colo.                |
| McKibben, Ruth .....         | Denver, Colo.                |
| McCauley, Genevieve .....    | Denver, Colo.                |
| McCarn, Rocceena .....       | Denver, Colo.                |
| McDonough, Mrs. Lizzie ..... | Grand Junction, Colo.        |
| McFadden, Tena .....         | 1049 Corona, Denver, Colo.   |
| McKnight, Louise .....       | La Junta, Colo.              |
| McNutt, Sarah A. ....        | Greeley, Colo.               |
| McLain, Susan .....          | Denver, Colo.                |
| McNair, Nell .....           | Denver, Colo.                |
| McPherson, Elizabeth .....   | Denver, Colo.                |
| M ller, Bernice .....        | Pueblo, Colo.                |
| Miller, Mary .....           | Denver, Colo.                |
| Miller, Nancy .....          | 187 Clarkson, Denver, Colo.  |
| Moran, Katherine .....       | Denver, Colo.                |
| Morrison, Doris .....        | Canon City, Colo.            |
| Moore, Edith .....           | Pueblo, Colo.                |
| Munn, Miss Jennie .....      | Pueblo, Colo.                |
| Murphy, Marie .....          | 1613 Penn., Denver, Colo.    |
| M-mie, Grace .....           | Denver, Colo.                |
| Malins, Edith .....          | Denver, Colo.                |
| Mahuron, I. D. ....          | Trinidad, Colo.              |
| March, Mabel .....           | Greeley, Colo.               |
| M-tson, Irene .....          | Greeley, Colo.               |
| Meng, Martha .....           | Denver, Colo.                |
| Meyers, Josephine .....      | Denver, Colo.                |
| M-vers, Blanche .....        | Denver, Colo.                |
| Meyers, Rosa V. ....         | La Junta, Colo.              |
| Miller, Myra .....           | Denver, Colo.                |
| Miller, Elizabeth .....      | Greeley, Colo.               |
| Moore, Josephine .....       | Denver, Colo.                |
| Morris, Pearl .....          | Denver, Colo.                |
| Morgan, Grace .....          | Denver, Colo.                |
| Mountain, T. C. ....         | La Junta, Colo.              |
| Mulvehill, Mary E. ....      | 1524 Fillmore, Denver, Colo. |
| Murphy, Marie .....          | 1618 Penn., Denver, Colo.    |
| Murchison, Mina .....        | Denver, Colo.                |
| Muncaster, Edith .....       | Denver, Colo.                |
| Muller, Maude .....          | Denver, Colo.                |
| Maher, Catherine W. ....     | 2532 Vine, Denver, Colo.     |
| Mayer, Geo. J. ....          | Grand Junction, Colo.        |
| Maher, Teresa .....          | 2532 Vine, Denver, Colo.     |
| Mains, Oscar .....           | Denver, Colo.                |
| Mattheson, Blanche .....     | Pueblo, Colo.                |
| Miles, Cornelia .....        | Denver, Colo.                |

|                        |                                |
|------------------------|--------------------------------|
| Norris, Lillian G.     | Denver, Colo.                  |
| Naffziger, Ruby        | Greeley, Colo.                 |
| Nash, Mary             | 216 W. 1st St., Greeley, Colo. |
| Nelson, Edith          | La Junta, Colo.                |
| Nelson, Alma           | 1406 N. Y., Lawrence, Kan.     |
| Newmeyer, Mary         | Denver, Colo.                  |
| Nelter, Mrs. Elizabeth | Denver, Colo.                  |
| Noble, Iva             | Rocky Ford, Colo.              |
| Nelson, Esther         | Denver, Colo.                  |
| Newman, Mrs. Norma     | Pueblo, Colo.                  |
| Newcomb, Annette       | Denver, Colo.                  |
| Nielson, Edna          | Denver, Colo.                  |
| Nichols, Gertrude      | 24 E. 14th., Denver, Colo.     |
| Noce, Lillian          | 3726 Vallejo, Denver, Colo.    |
| Nordstrom, Olga        | Grand Junction, Colo.          |
| Norton, Olive          | 875 Marion, Denver, Colo.      |

|                    |                            |
|--------------------|----------------------------|
| O'Boyle, Lila M.   | Denver, Colo.              |
| O'Toole, Mary      | Denver, Colo.              |
| O'Boyle, Georgia   | 2622 Champa, Denver, Colo. |
| O'Brien, Mary Rose | 213 Oak, Trinidad, Colo.   |
| O'Toole, Clara     | Denver, Colo.              |
| Ottenheimer, Daisy | Denver, Colo.              |

|                      |                                       |
|----------------------|---------------------------------------|
| Parker, Bernice      | Pueblo, Colo.                         |
| Parsons, Ralph       | Denver, Colo.                         |
| Parsons, Richard     | Denver, Colo.                         |
| Peavy, Mary          | 2324 Federal Boulevard, Denver, Colo. |
| Pfimmer, Kathrina    | Denver, Colo.                         |
| Phillips, H. S.      | Denver, Colo.                         |
| Pickering, Gladys    | Canon City, Colo.                     |
| Price, Mrs. Carrie   | 1501 Washington, Denver, Colo.        |
| Purdy, Sadie         | Pueblo, Colo.                         |
| Palm, Helen          | La Junta, Colo.                       |
| Palmquist            | Denver, Colo.                         |
| Parkyn, Esther       | Denver, Colo.                         |
| Poston, Mrs. Ella M. | Denver, Colo.                         |
| Prifmmer, Edmona     | Denver, Colo.                         |
| Perry, C. R.         | Trinidad, Colo.                       |
| Pelton, Evaline      | Denver, Colo.                         |
| Peterson, Celia      | Denver, Colo.                         |
| Plunk, A. C.         | La Junta, Colo.                       |
| Price, Alberta       | Denver, Colo.                         |

|             |                            |
|-------------|----------------------------|
| Quirk, Anna | Plaza Hotel, Denver, Colo. |
|-------------|----------------------------|

|                        |                              |
|------------------------|------------------------------|
| Reed, Dorothy          | 2925 Umatilla, Denver, Colo. |
| Redwine, Mrs. R.       | Pueblo, Colo.                |
| Riddle, Nora           | Grand Junction, Colo.        |
| Robin on, Hamilton     | Pueblo, Colo.                |
| Rogan, J. B.           | Denver, Colo.                |
| Ross, Edith            | 56 E. 3d, Denver, Colo.      |
| Ross, Margaret         | Canon City, Colo.            |
| Ruger, Mary            | Denver, Colo.                |
| Ruggles Maude          | Denver, Colo.                |
| Redfern, Mrs. J. C.    | La Junta, Colo.              |
| Remington, Carrie      | Denver, Colo.                |
| Reuser, Hilda          | La Junta, Colo.              |
| Russell, Mrs. Florence | Palisade, Colo.              |
| Roberts, J. W.         | La Junta, Colo.              |
| Robin on, Agnes        | Denver, Colo.                |
| Rolfe, Igna            | Denver, Colo.                |
| Rogers, Gertrude       | Rocky Ford, Colo.            |
| Rogers, Ivalou         | Greeley, Colo.               |
| Romick, Edna           | Denver, Colo.                |
| Romick, Lida           | Denver, Colo.                |
| Rose, Florence         | Greeley, Colo.               |
| Rowland, Sade          | Denver, Colo.                |
| Rigson, Idelma         | Denver, Colo.                |
| Ryan, Adele            | Denver, Colo.                |
| Runyon, Laura          | La Junta, Colo.              |
| Ruth, Alma             | 628 Park, Trinidad, Colo.    |

|                     |                               |
|---------------------|-------------------------------|
| Schenck, Loretta    | Pueblo, Colo.                 |
| Schroder, Katherine | Denver, Colo.                 |
| Scafford, M' belle  | 1928 Grant, Denver, Colo.     |
| Sheppard, Bessie    | 2104 Federal, Denver, Colo.   |
| Sinclair, Myra      | 1215 Elizabeth, Denver, Colo. |
| Simpson, Genevieve  | Denver, Colo.                 |
| Smith, Laffke       | Pueblo, Colo.                 |
| Songer, Myrtle      | Golden, Colo.                 |

|                          |       |                                      |
|--------------------------|-------|--------------------------------------|
| Songer, Ruth             | ..... | Pueblo, Colo.                        |
| Sparks, Minta            | ..... | Denver, Colo.                        |
| St. Clair, Carolyn       | ..... | Denver, Colo.                        |
| Steady, Millicent        | ..... | Canon City, Colo.                    |
| Steele, James            | ..... | Denver, Colo.                        |
| Stewart, C. E.           | ..... | Denver, Colo.                        |
| Stockton, Roscoe         | ..... | Denver, Colo.                        |
| Sweeny, Margaret         | ..... | Grand Junction, Colo.                |
| Sweet, Inez              | ..... | 2861 Vrain, Denver, Colo.            |
| Schrader, Bonita         | ..... | Denver, Colo.                        |
| Schneider, Marie         | ..... | Denver, Colo.                        |
| Scrafford, Maybelle M.   | ..... | 1928 Grant, Denver, Colo.            |
| Senter, Faith            | ..... | Denver, Colo.                        |
| Searles, Mrs. Eddie H.   | ..... | Denver, Colo.                        |
| Singleton, Helen         | ..... | Denver, Colo.                        |
| Stewart, C. E.           | ..... | Akron, Colo.                         |
| Stewart, Mrs. Emily      | ..... | 1302 Yale Av., Salt Lake City, Utah. |
| Shuntliff, Ida           | ..... | Denver, Colo.                        |
| Steckel, Iva             | ..... | Denver, Colo.                        |
| Straub, May              | ..... | Denver, Colo.                        |
| Seymour, Mrs. Melita     | ..... | Denver, Colo.                        |
| Sheldon, Mabel           | ..... | LaJunta, Colo.                       |
| Slocket, Florence        | ..... | Greeley, Colo.                       |
| Snider, Mary             | ..... | Rocky Ford, Colo.                    |
| Skogga, Mary             | ..... | Denver, Colo.                        |
| Staubb, Isabella         | ..... | Denver, Colo.                        |
| Sieg, Elizabeth          | ..... | Denver, Colo.                        |
| Steffan, Mrs. Eliza      | ..... | Denver, Colo.                        |
| Smith, Mrs. Mary E.      | ..... | Denver, Colo.                        |
| Smith, Eula              | ..... | Greeley, Colo.                       |
| Smith, Margaret          | ..... | Denver, Colo.                        |
| Smith, Rose              | ..... | Denver, Colo.                        |
| Sandusky, Leah           | ..... | Pueblo, Colo.                        |
| Scheffler, Josephine     | ..... | 1248 Gaylord, Denver, Colo.          |
|                          |       |                                      |
| Tidball, Elizabeth       | ..... | Denver, Colo.                        |
| Taub, Bertha             | ..... | Denver, Colo.                        |
| Thompson, Anna           | ..... | Denver, Colo.                        |
| Tintle, Mary E.          | ..... | Edgewater, Colo.                     |
| Tuey, Ruth               | ..... | LaJunta, Colo.                       |
| Tuffin, Emma             | ..... | Grand Junction, Colo.                |
| Teallis, Edwina          | ..... | 537 Franklin, Denver, Colo.          |
| Temple, Florence         | ..... | Denver, Colo.                        |
| Throop, Susanna          | ..... | Denver, Colo.                        |
| Trippler, Grace W.       | ..... | Grand Junction, Colo.                |
| Tubbs, Ruth              | ..... | Denver, Colo.                        |
|                          |       |                                      |
| Undersood, Helen         | ..... | Canon City, Colo.                    |
|                          |       |                                      |
| Veniere, Cecil J.        | ..... | Denver, Colo.                        |
| Verlee, Mrs. Marie Grant | ..... | Denver, Colo.                        |
| Vincent, Mrs. Henrietta  | ..... | Denver, Colo.                        |
| Vroon, Emma              | ..... | Denver, Colo.                        |
| Vandiver, Maude          | ..... | Grand Junction, Colo.                |
| Vickers, Edith           | ..... | Denver, Colo.                        |
| Von Rueceau, Eliza R.    | ..... | Denver, Colo.                        |
|                          |       |                                      |
| Watts, Lillie E.         | ..... | Denver, Colo.                        |
| Ward, Sue D.             | ..... | 841 Oneida, Denver, Colo.            |
| Warson, Agnes            | ..... | Denver, Colo.                        |
| Watson, Bessie           | ..... | La Junta, Colo.                      |
| Walsh, Eva N.            | ..... | Denver, Colo.                        |
| Walk, Olive              | ..... | Rocky Ford, Colo.                    |
| Weeks, Flora             | ..... | Denver, Colo.                        |
| Weiss, Adelaide          | ..... | Denver, Colo.                        |
| Weirich, Edna            | ..... | Denver, Colo.                        |
| Weirich, Helen           | ..... | Denver, Colo.                        |
| Wiedman, Gertrude        | ..... | Pueblo, Colo.                        |
| Williams, Ella           | ..... | Denver, Colo.                        |
| Wilson, Alice            | ..... | Denver, Colo.                        |
| Wheeler, Ella            | ..... | Rocky Ford, Colo.                    |
| Wielans, Olive           | ..... | LaJunta, Colo.                       |
| Wilson, Florence         | ..... | 616 Pine, Trinidad, Colo.            |
| Wonders, Winifred        | ..... | Delta, Colo.                         |
| Wood, Veronica           | ..... | Denver, Colo.                        |
| Wolfe, Hazel             | ..... | La Junta, Colo.                      |
| Wright, Edna F.          | ..... | Greeley, Colo.                       |
| Walker, Emma             | ..... | Canon City, Colo.                    |
| Walsh, Ella              | ..... | 516 So. Pearl, Denver, Colo.         |
| Walsa, Katherine         | ..... | Pueblo, Colo.                        |



|                         |      |            |         |       |
|-------------------------|------|------------|---------|-------|
| Walter, Sadie.....      | 457  | Bannock,   | Denver, | Colo. |
| Weegel, Caroline .....  | 1717 | Lafayette, | Denver, | Colo. |
| Weeker, Edna .....      | 753  | S. Logan,  | Denver, | Colo. |
| West, Lucy .....        |      |            | Pueblo, | Colo. |
| Wheeler, Avis .....     |      |            | Denver, | Colo. |
| White, Mrs. Julia ..... |      |            | Denver, | Colo. |
| Whitehead, Sarah .....  |      |            | Denver, | Colo. |
| Wilson, Clara .....     |      |            | Pueblo, | Colo. |
| Wilson, George .....    | 1627 | Adams,     | Denver, | Colo. |
| Wilson, Jennie .....    | 1544 | Rose,      | Denver, | Colo. |
| Willens, Minnie .....   |      |            | Denver, | Colo. |
| Williams, Mary .....    |      |            | Pueblo, | Colo. |
| Wyatt, G. W. ....       |      |            | Denver, | Colo. |
| Young, Lillian .....    |      |            | Denver, | Colo. |

## Individual Plan—College

|                               |  |
|-------------------------------|--|
| Adams, Davis .....            | East Lake, Colo.                         |
| Anderson, Florence .....      | Eaton, Colo.                             |
| Anderson, Mrs. Flora .....    | 1536 8th Av., Greeley, Colo.             |
| Anderson, Grace .....         | Bx. 104, R. 4, Greeley, Colo.            |
| Ashby, Carrie N. ....         | 920 10th St., Greeley, Colo.             |
| Ashbrooke, Belle.....         | 1008 Lincoln, St. Joe, Mo.               |
| Allstott, Thomas.....         | Burns, Wyo.                              |
| Amhurst, J. T. ....           | Rome, Colo.                              |
| Allison, Grace.....           | 3325 Wyandot, Denver, Colo.              |
|                               |  |
| Bushey, Mrs. Clifford .....   | 1733 7th Av., Greeley, Colo.             |
| Bruckner, Grace .....         | 1419 7th Ave., Greeley, Colo.            |
| Brown, Emily O. ....          | 1829 Franklin St., Denver, Colo.         |
| Blair, Mary E. ....           | Bx 1355, Cripple Creek, Colo.            |
| Becker, Lily C. ....          | Greeley, Colo.                           |
| Barkmann, Eda .....           | 1204 Wash., Junction City, Kan.          |
| Barkman, Clare.....           | 1204 N. Wash. St., Junction City, Kan.   |
| Bailev, Mildred.....          | 3325 Wyandot, Denver, Colo.              |
| Babbitt, Mrs. Alice H. ....   | 123 N. Walter St., Albuquerque, N. M.    |
| Barnard, Gladys .....         | Florence, Colo.                          |
| Barrett, Ethel .....          | 911 N. Wahsatch, Colorado Springs, Colo. |
| Barnett, Guy D. ....          | 223 4th St., Lewiston, Colo.             |
| Barnett, Mary .....           | 809 Nevada Ave., Trinidad, Colo.         |
| Batschelet, Ollive.....       | 2612 O'Neill St., Cheyenne, Wyo.         |
| Batschelet, Ethel .....       | 2612 O'Neill St., Cheyenne, Wyo.         |
| Beattie, Alva .....           | Vaughn, N. M.                            |
| Beatty, Mary .....            | 1473 Delaware, Denver, Colo.             |
| Beattie, Annie .....          | 3906 Holland Ave., Dallas, Tex.          |
| Bennett, John D. ....         | Forsythe, Mo.                            |
| Baker, Rachel .....           | Chivington, Colo.                        |
| Bulger, Katherine.....        | 623 University Ave., Laramie, Wyo.       |
| Benson, Mrs. Miriam.....      | 821 Forest Ave., Canon City, Colo.       |
| Barnham, Della .....          | Rt. 6, Stephenville, Tex.                |
| Barbour, Lillian .....        | Wheatridge, Colo.                        |
| Bent, Mrs. Laura .....        | Berwind, Colo.                           |
| Bennett, Ralph .....          | Mesita, Colo.                            |
| Bassler, Miss Helen .....     | 722 Coffman, Longmont, Colo.             |
| Baker, W. E. ....             | Telluride, Colo.                         |
| Broadbent, Mrs. Betty L. .... | Burley, Idaho.                           |
| Brandon, Elizabeth .....      | Bx. 627, Akron, Colo.                    |
| Borromeo, Sister M.....       | 2123 Bunney St., Omaha, Neb.             |
| Boyle, Helen .....            | Bx. 1223, Dawson, N. M.                  |
| Boge, Ethel .....             | 2857 Stuart, Denver, Colo.               |
| Bruce, Helena .....           | Idaho Springs, Colo.                     |
| Brown, Gladys Wylde.....      | Friend, Neb.                             |
| Brownson, Lillian N. ....     | 502 Emery St., Longmont, Colo.           |
| Brown, Julia M. ....          | 1829 Franklin St., Denver, Colo.         |
| Brown, Alice .....            | Gille pie, Ill.                          |
| Brown, Nora .....             | Greeley, Colo.                           |
| Bulger, Lillian.....          | 623 University Ave., Laramie, Wyo.       |
| Bulger, Ann e.....            | 623 University Ave., Laramie, Wyo.       |
| Butts, Linnie .....           | Loveland, Colo.                          |
| Bunning, Emma .....           | 420 W. 3rd St., Leadville, Colo.         |
|                               |  |
| Cameron, Margaret .....       | Bx. 64, Barr Lake, Colo.                 |
| Calvert, Alice .....          | 1010 17th St., Des Moines, Iowa.         |
| Carey, Lucy L. ....           | Forbes, Colo.                            |
| Cannell, Mona .....           | Rt. 1, Box 52, Burns, Wyo.               |
| Cannon, Brenda .....          | Denver, Colo.                            |
| Carr, Etta N. ....            | 1626 11th Ave., Greeley, Colo.           |
| Chamberlin, Frances .....     | Bisbee, Ariz.                            |
| Che ebro, Genevieve M. ....   | Monticello Hotel, Boulder, Colo.         |
| Chambers, M. May .....        | Las Animas, Colo.                        |
| Chambers, Edna .....          | 1326 Francis, St. Joseph, Mo.            |
| Cooper, Estella .....         | 818 W. 8th St., Topeka, Kan.             |
| Clark, Elva H. ....           | Fallon, Nev.                             |
| Clark, Ann.....               | Cas a, Wyo.                              |
| Clouse, Grace .....           | 3605 Dickerson Ave., Dallas, Tex.        |
| Copeland, Ada B. ....         | 1103 White Ave., Grand Junction, Colo.   |
| Cogley, Sister Clotilde.....  | 2123 Benny St., Omaha, Neb.              |
| Coombs, Ethel .....           | 2923 W. 28th Ave., Denver, Colo.         |
| Cleaton, Vivian .....         | Fowler, Colo.                            |
| Clayton, Miss Emily .....     | 2810 Angelique, St. Joseph, Mo.          |
| Coates, Mrs. S. M. ....       | Roggen, Colo.                            |
| Conesny, Hero .....           | 1630 Jackson St., Denver, Colo.          |
| Coler, Edith .....            | 644 Peterson St., Ft. Collins, Colo.     |
| Chapman, Klyda .....          | 753 S. Logan, Denver, Colo.              |
| Cochran, Mabel .....          | 1515 11th St., Greeley, Colo.            |

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|--------------------------|--|--------|
| Cooper, Anna E.          | Chateau,                                     | Okla.  |
| Crawford, Mrs. Myrtle    | Otis,  | Colo.  |
| Cronin, Jessie           | 920 Elm Ave., Long Beach,                    | Calif. |
| Cronin, Sister Sebastain | Mount St. Scholastica's Academy, Canon City, | Colo.  |
| Craig, Mr. Wm.           | 1107 N. 2nd St., St. Joseph,                 | Mo.    |
| Cresto, Louise           | Rockvale,                                    | Colo.  |
| Croft, Geraldine         | Creede,                                      | Colo.  |
| Curtin, Ida B.           | 3555 Federal Blvd., Denver,                  | Colo.  |
| Cullen, Mrs. Nellie      | 858 Main St., Grand Junction,                | Colo.  |
| Curtis, Supt. H. W.      | Wray,  | Colo.  |
| Coulson, Paul            | Dept. Ed. San Juan, Porta                    | Rico.  |
| Cochran, Grace           | 1515 11th St., Greeley,                      | Colo.  |
| Conklyn, Enid            | Osceola,                                     | Neb.   |
| Cook, Frances            | Miriam,                                      | Ark.   |
| Collins, Nannie          | Vinita,                                      | Okla.  |
| Comin, Mary              | 1608 11th Ave., Greeley,                     | Colo.  |
| Cooper, Anna E.          | Bradford,                                    | Ky.    |
| Crawford, Pearl          | Chateau,                                     | Okla.  |
| Council, Amy M.          | Rt. A, Grover,                               | Colo.  |
| Dunlavy, Mrs. M.         | 623 Colo. Ave., Trinidad,                    | Colo.  |
| Doull, Frances R.        | Denver,                                      | Colo.  |
| Dailey, Grace            | 1123 Sherman St., Denver,                    | Colo.  |
| Damon, J. G.             | Weldona,                                     | Colo.  |
| Daniels, Mary            | Florence,                                    | Colo.  |
| Davis, Robert Y.         | Evergreen,                                   | Colo.  |
| De, Louise               | Rt. 3, Box 37, Greeley,                      | Colo.  |
| De Veyra, Fortunato      | 814 12th St., Greeley,                       | Colo.  |
| Dempewolf, Mary          | 1824 7th Ave., Greeley,                      | Colo.  |
| Deibert, Genevieve       | Florence,                                    | Colo.  |
| Douglas, Helen H.        | 616 E. Cache La Poudre, Colorado Springs,    | Colo.  |
| Dugan, Ethel             | Bx. 46 Rouse,                                | Colo.  |
| Duff, Lula               | 424 W. 12th, Oklahoma City,                  | Okla.  |
| Dunlap, Margaret         | 105 E. 12, Hastings,                         | Nebr.  |
| Duray, Minnie            | Hotel Tooney, Denver,                        | Colo.  |
| Dyer, Helen              | 807 1/2 E. Evans, Pueblo,                    | Colo.  |
| East, Mrs. Margaret      | Jet,   | Okla.  |
| Eaton, G. Olen           | Arlington,                                   | Kan.   |
| Eichenberger, Ruth       | Diamondville,                                | Wyo.   |
| Elliott, Eula            | Alma,  | Neb.   |
| Ellis, I. L.             | Pagoda,                                      | Colo.  |
| Etheridge, Fern          | Glendo,                                      | Wyo.   |
| Ely, Clara               | Wagner, S.                                   | Dak.   |
| Faddis, Mrs. Julia       | Jerome, Ida.                                 | Colo.  |
| Faith, Elsie             | Parmalee Gulch, Mt. Morri on,                | Colo.  |
| Fallon, Mrs. Florence    | 925 Chateau Ave., Park Hill, Cincinnati,     | Ohio.  |
| Finch, Carolina          | 505 E. Boulder, Colorado Springs,            | Colo.  |
| Finley, Grace            | 426 12th Ave., Greeley,                      | Colo.  |
| Fisher, Mrs. Bessie N.   | 3300 Ave. "F", Polytechnic,                  | Tex.   |
| Fitzsimons, A. E.        | Greeley,                                     | Colo.  |
| Flaherty, Mrs. Mary E.   | Lakeview,                                    | Mont.  |
| Floyd, M. R.             | Vinita,                                      | Okla.  |
| Forgetti, Mary           | Albion,                                      | Wyo.   |
| Foster, O. A.            | Las Animas,                                  | Colo.  |
| Fowler, B. B.            | Parker,                                      | Colo.  |
| Frake, Supt. O. E.       | Box 305, Manville,                           | Wyo.   |
| Franchs, Amelia          | 837 Littotson Ave., Trinidad,                | Colo.  |
| Frink, Edith             | c/o W. P. Haxton, Steamboat Springs,         | Colo.  |
| Frye, Elizabeth          | Lovewell,                                    | Kan.   |
| Green, H. E. (Supt.)     | Breckinridge,                                | Colo.  |
| Gammill, F. I.           | S mila,                                      | Colo.  |
| Gardiner, Ana L.         | 18 E. Caramillo St., Colorado Springs,       | Colo.  |
| Garnire                  | Arco,  | Colo.  |
| Gates, Mrs. Virginia     | 1515 Grant St., Denver,                      | Colo.  |
| Gauss, Miss Louise       | 1411 11th Ave., Greeley,                     | Colo.  |
| Gibbs, Elizabeth         | 514 Carson Ave., La Junta,                   | Colo.  |
| Gibson, E. A.            | Gaylord,                                     | Kan.   |
| Gillmore, Alice          | 221 W. Park Ave., San Antonio,               | Tex.   |
| Gill, Miss Helen         | S. Biou Ave., Fort Morgan,                   | Colo.  |
| Glase, Gladys            | 1018 Bellview, La Junta,                     | Colo.  |
| Gleasman, Belle          | Ainsworth,                                   | Neb.   |
| Graham, Alpha            | Vinita,                                      | Okla.  |
| Graham, Glennes          | Gen. Del., North Platte,                     | Neb.   |
| Green, H. E.             | Breckinridge,                                | Colo.  |
| Greek, Blanche M.        | Alma,  | Colo.  |
| Griffith, Lucy           | R. F. D., Arvada,                            | Colo.  |
| Grix, Mary B.            | 2549 Grammercy Av., Ogden,                   | Utah   |
| Groom, Nina              | Pattonsburg,                                 | Mo.    |

|                         |       |  |
|-------------------------|-------|--|
| Gorman, N. V.           | ..... | Keanesburg, Colo.                              |
| Gordon, Grace           | ..... | 1211 Garfield Av., Laramie, Wyo.               |
| Guise, Mabel            | ..... | 1506 9th St., Boulder, Colo.                   |
| Guenella, Clementine    | ..... | 549 Wash. Av., Council Bluffs, Iowa            |
|                         |       |  |
| Harris, Elizabeth       | ..... | Carbondale, Colo.                              |
| Hayes, John I.          | ..... | Central H. S., Kansas City, Mo.                |
| Hildebrand, Etta        | ..... | 67 S. Ogden, Denver, Colo.                     |
| Holmes, Mrs. Dora       | ..... | Palmer Lake, Colo.                             |
| Hill, Jennis            | ..... | Rt. 1, Beloit, Kan.                            |
| Holmes, Ethel           | ..... | 2610 So. Sherman, Denver, Colo.                |
| Hall, Luella A.         | ..... | 507 N. Tejon, Colorado Springs, Colo.          |
| Hall, Grace B.          | ..... | 701 E. 14th Ave., Denver, Colo.                |
| Hall, Mary              | ..... | Hugo, Colo.                                    |
| Hamilton, Nellie        | ..... | 1522 Clermont St., Denver, Colo.               |
| Hampton, Mrs. Mayme B.  | ..... | Monte Vista, Colo.                             |
| Hanley, Laura           | ..... | 603 Harrison St., Eveleth, Minn.               |
| Hanson, Margaret        | ..... | 1541 11th Ave., Greeley, Colo.                 |
| Hardy, Ive              | ..... | Duncanville, Texas                             |
| Hardin, Achrah          | ..... | 2420 Routt, Pueblo, Colo.                      |
| Hawthorne, Bessie       | ..... | 378 Broadway, Denver, Colo.                    |
| Hemphill, F. C.         | ..... | Burns, Wyo.                                    |
| Henderson, Glenn D.     | ..... | Box 35, Rouse, Colo.                           |
| Herfurth, Alma          | ..... | 709 Sheridan Av., Laramie, Wyo.                |
| Hession, Mae            | ..... | C/o F. Jensen, R. F. D. 2, Denver, Colo.       |
| Hetherington, Lucille   | ..... | Beatrice, Neb.                                 |
| Hicks, Myrtle           | ..... | 4545 Grant St., Omaha, Neb.                    |
| Higgins, Ada            | ..... | 511 S. 12th St., Rocky Ford, Colo.             |
| Higginbottom, Minnie    | ..... | Ordway, Colo.                                  |
| Hon, Clyde              | ..... | 242 S. Broadway, Denver, Colo.                 |
| Hogue, J. unita S.      | ..... | Box 225, Paris, Texas                          |
| Holmes, Ethel E.        | ..... | 2610 So. Sherman, Denver, Colo.                |
| Holtzendorff, Katherine | ..... | 1739 W. 10th, Oklahoma City, Okla.             |
| Holahan, Josephine      | ..... | 2 E. Costilla St., Colorado Springs, Colo.     |
| Howard, Frances         | ..... | 307 S. Loomis, Ft. Collins, Colo.              |
| Howard, Edith           | ..... | Barnesville, Colo.                             |
| Howard, Mrs. Martha     | ..... | Taos, N. M.                                    |
| Huiatt, Rose            | ..... | Alcreek, Colo.                                 |
| Hull, Ruth J.           | ..... | 1107 Rindenbaugh St., St. Joseph, Mo.          |
| Hunt, Ruth              | ..... | 3238 Calif. St., Denver, Colo.                 |
| Humbred, Mrs. I. A.     | ..... | Rolla, K'n.                                    |
| Huscher, Marion         | ..... | 2621 Park Ave., Kansas City, Mo.               |
| Hutton, Mrs. O. F.      | ..... | 404 So. 15th, St. Joseph, Mo.                  |
|                         |       |  |
| Irwin, Viva Mae         | ..... | 169 Chestnut St, Canon City, Colo.             |
|                         |       |  |
| Jacobson, Mrs. Elsie    | ..... | 163 Dozier Ave., Canon City, Colo.             |
| Jannarius, S. M.        | ..... | 3330 Burt St., Omaha, Neb.                     |
| Jennell, E. W.          | ..... | Minturn, Colo.                                 |
| Jensen, Mrs. James      | ..... | Opal, Wyo.                                     |
| Johnson, Mrs. Anna M.   | ..... | 3340 Hayward Place, Denver, Colo.              |
| Johnson, Beulah         | ..... | McAlester, Okla.                               |
| Johnston, Mary          | ..... | Otis, Colo.                                    |
| Johnson, Everett        | ..... | Checotah, Okla.                                |
| Johnson, Mary V.        | ..... | 1337 Elati St., Denver, Colo.                  |
| Johnson, Nellie E.      | ..... | 1717 Ivy Place, Colorado Springs, Colo.        |
| Joy, Pearl              | ..... | 1330 9th St., Greeley, Colo.                   |
| Johnson, Augusta        | ..... | Plains, Colo.                                  |
| Jarrett, Mrs. Elizabeth | ..... | 706 15th St., Greeley, Colo.                   |
| Jones, Bena             | ..... | 1560 Vine St., Denver, Colo.                   |
|                         |       |  |
| Kanich, Ruby            | ..... | Fremont, Neb.                                  |
| Katzenberger, May E.    | ..... | Gables Apt., Greeley Colo.                     |
| Kellogg, Gertrude       | ..... | Box 973, Flagstaff, Ariz.                      |
| Kennedy, Florence E.    | ..... | Box 115, Wellington, Colo.                     |
| Kessler, Leola          | ..... | Solar, Colo.                                   |
| Kidder, Ethel M.        | ..... | Stockyards Sta., Rt. 1, Denver, Colo.          |
| Kimball, Miriam         | ..... | 801 W. Silver St., Albuquerque, N. M.          |
| King, L. F.             | ..... | Cerro Gordo, Ill.                              |
| Kirk, John H.           | ..... | Flagler, Colo.                                 |
| Kinsey, Dorothy         | ..... | Underwood, Wyo.                                |
| Kinport, J. Katherine   | ..... | 632 Downing St., Denver, Colo.                 |
| Kivett, Mrs. H. E.      | ..... | 2711 Olive St., St. Joseph, Mo.                |
| Kreimer, Marie          | ..... | 3554 Marion St., Denver, Colo.                 |
|                         |       |  |
| Lang, P. J.             | ..... | Wentworth, Mo.                                 |
| Larson, Mildred         | ..... | Grover, Colo.                                  |
| Larsen, Agnes           | ..... | Starkville, Colo.                              |
| Lauenstein, Minnie      | ..... | Box 26, R. F. D., Longmont, Colo.              |
| Lawlor, Mattie          | ..... | 322 So. 7th St., St. Joseph, Mo.               |
| Leibold, Elizabeth      | ..... | 3709 W. Colorado Ave., Colorado Springs, Colo. |

|                                 |   |
|---------------------------------|---|
| Lentz, Clyde .....              | Arlington, Kan.   |
| Leonard, Warren A. ....         | Ivoryton, Conn.   |
| LeVan, Atlanta .....            | Littleton, Colo.  |
| Lipschitz, Gertrude .....       | Burns, Wyo.   |
| Lobdell, Fred .....             | Chin Lee, Ariz.   |
| Lobdell, Mrs. Gertrude .....    | Chin Lee, Ariz.   |
| Longan, Anna .....              | 1820 Lafayette St., Denver, Colo.                       |
| Looney, Ethel .....             | Vinita, Okla.   |
| Loomis, Nellie .....            | Bedford, Iowa   |
| Lynard, Anna .....              | 603 Harrison, Eveleth, Minn.                            |
|                                 |   |
| Mangels, Mrs. Eleanor .....     | Rolla, Kan.   |
| Meyers, Faun E. ....            | Lafayette, Colo.  |
| Moorman, Mrs. J. C. ....        | Maysville, Mo.  |
| McKibben, Ruth .....            | 1603 Downing St., Denver, Colo.                         |
| McBrun, Katherine .....         | Rouse, Colo.  |
| McCarter, Mrs. Mary .....       | Rt. 3, Box 142, Boulder, Colo.                          |
| McCoy, Mae .....                | Box 665, Yuma, Colo.                                    |
| McConnell, Mrs. W. J. ....      | Denton, Texas   |
| McCullough, W. O. ....          | Stratton, Colo.   |
| McDonald, Mrs. Mildred .....    | 2618 Monterey St., St. Joseph, Mo.                      |
| McKennie, Abie .....            | 213 Cornelia Ave., Kirkwood, Mo.                        |
| McKnight, Elizabeth .....       | 127 1/2 N. 6th, Quincy, Ill.                            |
| McNair, Nellie .....            | 578 Washington, Denver, Colo.                           |
| McWhorter, Irene .....          | Midwest Refining Company, Denver, Colo.                 |
| McVey, J. P. ....               | Public Schools, Flagstaff, Ariz.                        |
| Mackie, Ellen .....             | Box 393, Hot Springs, S. D.                             |
| Mackie, Kate .....              | 1124 Josephine, Denver, Colo.                           |
| Malins, Edith S. ....           | Denver, Colo.   |
| Mansfield, Leora .....          | Lucas, Kan.   |
| Mannerling, Lou .....           | Cripple Creek, Colo.                                    |
| Martinson, Emma .....           | Bristol, Colo.  |
| Martin, Alice .....             | 1414 11th Ave., Greeley, Colo.                          |
| Martz, Mrs. A. J. ....          | Moore, Mont.  |
| Martz, A. J. ....               | Moore, Mont.  |
| Mason, Blanche .....            | 326 Madison Ave., Moberly, Mo.                          |
| Meacham, Rena .....             | Kensington Apts., Greeley, Colo.                        |
| Means, Mrs. Anna Anderson ..... | Bennett, Colo.  |
| Meyers, Faun E. ....            | Lafayette, Colo.  |
| Milley, Harriett M. ....        | Junction City, Kan.                                     |
| Millward, Bonn Howe .....       | Box 9, The Oaks, Stratton Park, Colorado Springs, Colo. |
| Mitchell, Helen .....           | Wellington, Colo.                                       |
| Millege, Marie .....            | Copan, Okla.  |
| Miller, Elizabeth .....         | Camfield Hotel, Greeley, Colo.                          |
| Miller, Miss Nell .....         | 517 Fowler St., Taylor, Texas                           |
| Moseley, Nancy D. ....          | 403 Bryan Street, Dallas, Texas                         |
| Moss, Susannah .....            | Long's Peak, Colo.                                      |
| Moore, Hazel .....              | 924 Main St., Boonville, Mo.                            |
| Moran Sister M. Olivia .....    | 2123 Burney, Omaha, Neb.                                |
| Morgan, Ida .....               | Dix, Neb.   |
| Montgomery, Mrs. L. P. ....     | 2265 Clermont St., Denver, Colo.                        |
| Mortesen, L. H. ....            | Sanford, Colo.  |
| Mount, Lelia B. ....            | Box 158, Del Norte, Colo.                               |
| Munger, Mrs. Jennie V. ....     | Boyes, Mont.  |
| Muldoon, Margaret .....         | 952 10th St., Denver, Colo.                             |
| Mullen, Sister Patrica .....    | 2123 Binney, Omaha, Neb.                                |
| Myers, Monda .....              | 1717 10th Ave., Greeley, Colo.                          |
|                                 |   |
| Nance, Dorothy .....            | Box 905, Durango, Colo.                                 |
| Nash, Mary .....                | 216 W. 1st St., Trinidad, Colo.                         |
| Neal, Paul S. ....              | Chivington, Colo.                                       |
| Nelson, Hulda .....             | 2035 11th, Boulder, Colo.                               |
| Newton, Pearl .....             | R. F. D. 2, Durango, Colo.                              |
| Newlon, Daisy B. ....           | Colony, Kan.  |
| Nicholson, Paul .....           | Frederick, Colo.  |
| Nieman, Lena E. ....            | Lancaster, Kan.   |
| Nitzsche, Anguta .....          | 1536 8th Ave., Greeley, Colo.                           |
| Nix, Lily L. ....               | Brush, Colo.  |
| Nobbitt, Kittie .....           | Farragut, Iowa  |
| Nowels, Belle .....             | 700 S. 15th, Rocky Ford, Colo.                          |
| Nowlin, E. W. ....              | Bristol Sch., Webster Grove, Mo.                        |
| Nunemaker, Addie .....          | East Lake, Colo.  |
| Nussbaum, Mrs. Agnes .....      | 1115 9th St., Greeley, Colo.                            |
|                                 |   |
| O'Boyle, Sister Mary C. ....    | 2123 Binney St., Omaha, Neb.                            |
| O'Toole, Clara E. ....          | Denver, Colo.   |
| Overson, Lena .....             | 1117 12th Av., Greeley, Colo.                           |
| Owens, Minnie Grace .....       | Walsenburg, Colo.                                       |
|                                 |   |
| Parsons, Richard .....          | Greeley, Colo.  |
| Parsons, R. A. ....             | Greeley, Colo.  |

|                               |   |
|-------------------------------|---|
| Pace, Goldie .....            | Longmont, Colo.                                   |
| Packer, Mrs. Mae B. V. ....   | Goodrich, Colo.                                   |
| Patton, Jessie .....          | Beuna Vista, Colo.                                |
| Pfost, Grace M. ....          | Kit Carson, Colo.                                 |
| Permenter, Addie .....        | Talihara, Okla.                                   |
| Pierce, Opal .....            | Clarkdale, Mo.                                    |
| Pingrey, Jennie .....         | 2425 8th St., Emmetsburg, Iowa                    |
| Pitts, Mrs. Harry .....       | Loveland, Colo.                                   |
| Plunk, A. C. ....             | Box 392, La Junta, Colo.                          |
| Popham, Gladys .....          | Box 242, Collinsville, Okla.                      |
| Potts, Frances .....          | 509 S. 8th St., Council Bluffs, Iowa              |
| Power, Martha .....           | 330 E. Adams, McAlester, Okla.                    |
| Prosser, Miss Georgiana ..... | Box 853, Cheyenne, Wyo.                           |
| Pragst, Augusta .....         | Greeley, Colo.                                    |
|                               |   |
| Quinby, Grace .....           | 1625 8th Ave., Greeley, Colo.                     |
| Quinlivan, Margaret .....     | 3549 Lafayette, Denver, Colo.                     |
|                               |   |
| Rader, Clara .....            | 1217 Jule St., St. Joseph, Mo.                    |
| Raeth, G. A. ....             | 1163 Roosevelt Ave., Salt Lake City, Utah         |
| Railey, Mrs. Bennie J. ....   | Box 195, La Plata, Mo.                            |
| Rasar, Isa F. ....            | Glen Comfort, Colo.                               |
| Rae, Inez .....               | E. F. Building, Rm. 322, Hotel, Washington, D. C. |
| Rhiner, Ethelyne .....        | 1533 9th Ave., Greeley, Colo.                     |
| Rich, Mrs. Ida .....          | Julesburg, Colo.                                  |
| Ring, Anna Jane .....         | Segundo, Colo.                                    |
| Ring, Amy E. ....             | Primerio, Colo.                                   |
| Robertson, Edith .....        | Primerio, Colo.                                   |
| Robbins, Dora .....           | Rt. 2, Box 9, Windsor, Colo.                      |
| Robson, Elsie .....           | Hoyt, Colo.                                       |
| Rocchio, Jennie .....         | Rockvale, Colo.                                   |
| Rogers, E. C. ....            | 1017 1-2 17th St., Greeley, Colo.                 |
| Rucker, Mary .....            | Clayton, N. M.                                    |
|                               |   |
| Swenson, Frances .....        | 2558 Marion St., Denver, Colo.                    |
| Stewart, C. E. ....           | Rt. 4, Box 88, Greeley, Colo.                     |
| Sample, Mrs. Ivan .....       | Rt. 4, Box 88, Greeley, Colo.                     |
| Sara, Sister M. ....          | Sacred Heart H. S., Eagle Grove, Iowa             |
| Schmel .....                  | Box 262, Long Pine, Neb.                          |
| Schnebly, Elsworth .....      | Boyer, Colo.                                      |
| Scott, Miss Nellie .....      | Delta, Colo.                                      |
| Scott, C. E. ....             | Timnath, Colo.                                    |
| Seacot .....                  | Ashland, Kan.                                     |
| Shipman, Manilla .....        | Calhan, Colo.                                     |
| Sibeill, Cora Bell .....      | Lamar, Colo.                                      |
| Silver, Marie .....           | Lamar, Colo.                                      |
| Simon, Della .....            | 438 S. Main St., Piqua, Ohio                      |
| Slaughter, Elizabeth .....    | 705 N. Nevada Ave., Colorado Springs, Colo.       |
| Smith, Wells .....            | Berthoud, Colo.                                   |
| Smith, Mrs. Wells .....       | Berthoud, Colo.                                   |
| Smith, Mrs. Helen .....       | Box 193, Florence, Colo.                          |
| Steadman, H. A. ....          | Box 687, Billings, Mont.                          |
| Stewart, Lula .....           | De Beque, Colo.                                   |
| Stoelzing, Katrina .....      | Box 54, Miami, Ariz.                              |
| Snook, Julia .....            | Moran, Wyo.                                       |
| Strock, Eileen .....          | Portland, Colo.                                   |
| Sutor, Florence .....         | Alma, Neb.  |
| Sullnair, Rose .....          | Green River, Wyo.                                 |
| Sutherland, Marie .....       | Marion, Ill.                                      |
| Sullivan, Rose .....          | 1445 State St., Salt Lake City, Utah              |
| Savits, Mabel .....           | 1510 11th Ave., Greeley, Colo.                    |
| Schumaker, Helen .....        | Fort Morgan, Colo.                                |
| Schoonmaker, N. B. ....       | 2939 Humbolt Ave., Minneapolis, Minn.             |
| Schuster, Florence .....      | Granby, Colo.                                     |
| Sharp, Mabel R. ....          | Fountain, Colo.                                   |
| Shipman, Manley .....         | 1526 9th Ave., Greeley, Colo.                     |
| Straley, Fae .....            | La Salle, Colo.                                   |
|                               |   |
| Taylor, Miss Mattie .....     | Picton, Colo.                                     |
| Thorn, Martha .....           | Walsenburg, Colo.                                 |
| Thompson, Retia .....         | Kiowa, Colo.                                      |
| Thompson, Josephine .....     | Bear Creek, Mont.                                 |
| Taylor, Paula .....           | 2120 E. 12th Ave., Denver, Colo.                  |
| Taylor, Edna R. ....          | 747 Jefferson Ave., Loveland, Colo.               |
| Todd, Alice C. ....           | No. 73, Rouse, Colo.                              |
| Tate, Emma C. ....            | No. 211, Florence, Colo.                          |
| Thornberry, Mrs. A. D. ....   | 1324 N. 2d St., St. Joseph, Mo.                   |
| Thompson, June E. ....        | 419 1st St., Roundup, Mont.                       |
|                               |   |
| Vallot, Genevieve W. ....     | Gowanda, Colo.                                    |
| Van Eps, Ethel .....          | 2605 Carr St., Omaha, Neb.                        |



|                                 |  |
|---------------------------------|--|
| Van Fradenburg, Mrs. Mary ..... | Manassa, Colo.                           |
| Vezzetti, Mary A. ....          | Rockvale, Colo.                          |
| Vincent, Mrs. K. Hatheway.....  | 3346 Bryant St., Denver, Colo.           |
| Vincent de Paul, Sister M. .... | 2123 Binney St., Omaha Neb.              |
| Wilson, Lillie .....            | 501 Lee St., Charleston, W. Va.          |
| Winans, Charlotte .....         | Longmont, Colo.                          |
| Wood, Miriam E. ....            | 67 S. Odgen St., Denver, Colo.           |
| Woodward, Ethel .....           | 303 N. 4th St., Cripple Creek, Colo.     |
| Wright, Edna .....              | Greeley, Colo.                           |
| Williams, Olive .....           | Hanna, Wyo.                              |
| Warner, S. D. ....              | Enterprise, Kan.                         |
| Weller, Lena M. ....            | Golden, Colo.                            |
| Wagner, Josephine .....         | Keenesburg, Colo.                        |
| Wagner, Marguerite .....        | Keenesburg, Colo.                        |
| Webb, John A. ....              | 1019 1-2 17th St., Greeley, Colo.        |
| Webb, Mrs. Elba .....           | 1019 1-2 17th St., Greeley, Colo.        |
| Watts, Lillie E. ....           | 2246 Eudora St., Denver, Colo.           |
| Waterman, Verna .....           | Gunnison, Colo.                          |
| Weedin, Della D. ....           | Tarkio, Mo.                              |
| Wetzel, Gertrude .....          | Checotah, Okla.                          |
| White, Audrey .....             | Rt. 1, Box 45, Longmont, Colo.           |
| White, Mrs. Willie G. ....      | Hurley, N. M.                            |
| Wildhack, Leona .....           | Meeker, Colo.                            |
| Wilkin, Esther .....            | 606 N. Mt. Ave., Fort Collins, Colo.     |
| Winn, Elenor M. ....            | 1600 St. Louis St., Dallas, Texas        |
| Wiley, Lula M. ....             | 1312 W. 15th St., Oklahoma City, Okla.   |
| Wilkerson, R. A. ....           | La Grande, Ore.                          |
| Williams, Mabel F. ....         | 508 Wash. Ave., Trinidad, Colo.          |
| Williams, Frances J. ....       | 508 Wash. Ave., Trinidad, Colo.          |
| Williams, Olive .....           | Hanna, Wyo.                              |
| Witter, Nellie .....            | 430 Peterson St., Fort Collins, Colo.    |
| Wolfe, Lucille .....            | Berthoud, Colo.                          |
| Wolfe, Mary L. ....             | 2907 Colo. Ave., Colorado Springs, Colo. |
| Wright, Edna .....              | Greeley, Colo.                           |
| Woodley, Ruth .....             | 404 Thorn Place, Marion Ill.             |
| Weiss, Adelaide .....           | 135 S. Corona, Denver, Colo.             |
| Weikeisey, Ruth .....           | Rt. 4, Box 130, Greeley, Colo.           |
| Weymouth, Edith .....           | Commonwealth Bldg., Denver, Colo.        |
| Young, J. E. ....               | Stockett, Mont.                          |
| Young, Marguerite .....         | Willington, Colo.                        |
| Zollars .....                   | 3433 E. 7th St., Kansas City, Mo.        |

## Individual Plan—High School

|                           |                                 |
|---------------------------|---------------------------------|
| Adolphson, Elsie .....    | Box 992, Cheyenne, Wyo.         |
| Benning, Vern R. ....     | Otis, Colo.                     |
| Boyer, Ev .....           | Dover, Colo.                    |
| Ferguson, Mabel.....      | South Pekin, Ill.               |
| Foss, Mrs. Lena.....      | Fosston, Colo.                  |
| Galbasini, Bob .....      | Weldona, Colo.                  |
| Henderson, Ruth .....     | Brush, Colo.                    |
| Hurianek, Zdenka .....    | Jaroso, Colo.                   |
| Johnson, Mabel .....      | Arriba, Colo.                   |
| Johnson, Hazel .....      | Arriba, Colo.                   |
| Kindred, L. B. ....       | Grover, Colo.                   |
| Logan, Mrs. Jennie .....  | Yetta, Colo.                    |
| Larson, Mrs. A. Mae ..... | Grover, Colo.                   |
| McFarland, Barbara .....  | Y. W. C. A., Estes Park, Colo.  |
| Sanbo, Helen E. ....      | 2418 Tremont Pl., Denver, Colo. |
| Schweiger, Caroline ..... | Broomfield, Colo.               |
| Sell, Mrs. N. F. ....     | St. Joseph, Mo.                 |
| Van Devender, Viola ..... | 605 14th Ave., Greeley, Colo.   |
| Van Hook, Hallie .....    | 76 Lincoln, Denver, Colo.       |
| Watson, Mrs. Olive M..... | Colorado Springs, Colo.         |
| Willis, Elizabeth .....   | Fort Lupton, Colo.              |
| Wilfey, Mrs. Ida K. ....  | Bardeen, Colo.                  |
| Wright, A. Ethel .....    | Greeley, Colo.                  |
| Zalph, Frieda B. ....     | Greeley, Colo.                  |

## Institute Plan

|                             |                         |
|-----------------------------|-------------------------|
| Andrews, Mary .....         | Akron, Colo.            |
| Anderson, Ruth J. ....      | Fort Lupton, Colo.      |
| Ames, Mrs. Naomi .....      | Fort Collins, Colo.     |
| Balliff, Elizabeth .....    | Conejos, Colo.          |
| Baker, Rachel .....         | Golden, Colo.           |
| Bandomer, Ida .....         | Akron, Colo.            |
| Barker, Georgia .....       | Hugo, Colo.             |
| Barnes, Bernice .....       | Trinidad, Colo.         |
| Barrett, Mary .....         | Trinidad, Colo.         |
| Biederbick, Esther L. ....  | Lamar, Colo.            |
| Braden, Olive .....         | Colorado Springs, Colo. |
| Brady, Mildred .....        | Colorado Springs, Colo. |
| Bryan, Myrtle M. ....       | Lamar, Colo.            |
| Brumbly, Vera .....         | Romeo, Colo.            |
| Brunelli, Valentine .....   | Walsenburg, Colo.       |
| Boyle, Elizabeth .....      | Canon City, Colo.       |
| Boyle, Francis .....        | Trinidad, Colo.         |
| Buhr, Florence M. ....      | Hugo, Colo.             |
| Burch, Ruth .....           | Hugo, Colo.             |
| Bursch, Marie .....         | Walsenburg, Colo.       |
| Carnahan, Claire .....      | Colorado Springs, Colo. |
| Carter, Ione .....          | Romeo, Colo.            |
| Clark, Mary .....           | Leadville, Colo.        |
| Coffey, Viola .....         | Boulder, Colo.          |
| Coffman, Anna M. ....       | Lamar, Colo.            |
| Coffman, Martha A. ....     | Lamar, Colo.            |
| Couey, Edna .....           | Trinidad, Colo.         |
| Crocomb, Annice .....       | Leadville, Colo.        |
| Curry, Benjamin R. ....     | Akron, Colo.            |
| Devine, Isabella .....      | Colorado Springs, Colo. |
| Dickson, Alta .....         | Akron, Colo.            |
| Douglas, A. M. ....         | Colorado Springs, Colo. |
| Elswick, Julia .....        | Lamar, Colo.            |
| Elswick, Blanche W. ....    | Lamar, Colo.            |
| English, Sophia .....       | Earl, Colo.             |
| Epinosa, Frank .....        | La Jara, Colo.          |
| Farney, Christine .....     | Hugo, Colo.             |
| Ferguson, Lillian .....     | Trinidad, Colo.         |
| Fraser, Mabel .....         | Akron, Colo.            |
| Francis, Mary I. ....       | Lamar, Colo.            |
| Franchs, Amelia .....       | Trinidad, Colo.         |
| Frazy, Irma .....           | Walsenburg, Colo.       |
| Fremgen, Bertha .....       | Hugo, Colo.             |
| Fremgen, Minnie .....       | Hugo, Colo.             |
| Frisbie, Orpha .....        | Akron, Colo.            |
| Frisbie Opal .....          | Akron, Colo.            |
| Forrester, Geo. ....        | Trinidad, Colo.         |
| Fowler, Mrs. B. B. ....     | Colorado Springs, Colo. |
| Garber, Verma V. ....       | Colorado Springs, Colo. |
| Gard, Wilhelmina .....      | Loveland, Colo.         |
| Gilbert, Grace D. ....      | Lamar, Colo.            |
| Gilbert, Faite E. ....      | Lamar, Colo.            |
| Gillingham, M. D. ....      | Colorado Springs, Colo. |
| Gish, Orletha .....         | Lamar, Colo.            |
| Griffing, Elizabeth .....   | Akron, Colo.            |
| Gorman, Norton .....        | Golden, Colo.           |
| Grantham, Esther .....      | Lamar, Colo.            |
| Green, Lillian .....        | Loveland, Colo.         |
| Groff, Wanda .....          | Colorado Springs, Colo. |
| Guy, Mrs. Nellie .....      | Lamar, Colo.            |
| Guy, Mary .....             | Lamar, Colo.            |
| Gutzmacker, Margaret .....  | Black Hawk, Colo.       |
| Gutzmacker, Frances .....   | Central City, Colo.     |
| Hansen, Clara .....         | Colorado Springs, Colo. |
| Herrick, Flora .....        | Hugo, Colo.             |
| Highbeam, Esther .....      | Colorado Springs, Colo. |
| Hilserback, Katherine ..... | Akron, Colo.            |

|                               |                         |
|-------------------------------|-------------------------|
| Hill, Verne .....             | Timnath, Colo.          |
| Hughes, Sister M. Hilda ..... | Leadville, Colo.        |
| Hull, Donna .....             | Walsenburg, Colo.       |
| Hofeld, Edna .....            | Akron, Colo.            |
| Hogan, Margaret L. ....       | Hogan, Colo.            |
| Holman, Leona C. ....         | Center, Colo.           |
| Hornbacher, Kate .....        | Akron, Colo.            |
| Howe, Ethelda .....           | Cokedale, Colo.         |
| Jacobs, Gertrude .....        | Trinidad, Colo.         |
| James, Lucile .....           | Fort Collins, Colo.     |
| Johnston, Anna .....          | Louisville, Colo.       |
| Keens, Blanche .....          | Hugo, Colo.             |
| Kennedy, Florence .....       | Loveland, Colo.         |
| Koenek, Lura .....            | Akron, Colo.            |
| Koenek, Hilda .....           | Akron, Colo.            |
| Larsen, Agnes .....           | Starkville, Colo.       |
| Leavell, Rachel .....         | Boulder, Colo.          |
| Lepel, Charlotte C. ....      | Lamar, Colo.            |
| Leetch, Martha B. ....        | Lamar, Colo.            |
| Lewis, Myrtle .....           | Hugo, Colo.             |
| Loftus, Mrs. Helen .....      | Colorado Springs, Colo. |
| Lago, Louise .....            | Fort Collins, Colo.     |
| Lucke, Esther .....           | Haxtun, Colo.           |
| Martin, Beatrice .....        | Golden, Colo.           |
| Marsh, Irene .....            | Berthoud, Colo.         |
| Marz, Dorothy .....           | Colorado Springs, Colo. |
| Matley, Marie .....           | Durango, Colo.          |
| Mayes, Dorothy L. ....        | Lamar, Colo.            |
| McAleer, Florence G. ....     | Lamar, Colo.            |
| McCall, Mrs. Jennie .....     | Greeley, Colo.          |
| McCoy, Marie .....            | Colorado Springs, Colo. |
| McKenny, Florence E. ....     | Lamar, Colo.            |
| McKee, Idell .....            | Walsenburg, Colo.       |
| Mickelson, Miss Mabel .....   | Sanford, Colo.          |
| Mitchell, Helen .....         | Wellington, Colo.       |
| Morehead, Ada .....           | Lamar, Colo.            |
| Moury, Mrs. Allie .....       | Lamar, Colo.            |
| Munger, Rhea .....            | Akron, Colo.            |
| Mudd, Harmon L. ....          | Fort Collins, Colo.     |
| Murray, Margaret .....        | Fort Collins, Colo.     |
| Munay, Hazel .....            | Trinidad, Colo.         |
| Nelson, Frances .....         | Hugo, Colo.             |
| Neeley, Roberta J. ....       | Loveland, Colo.         |
| Nelson, Lucy .....            | Berthoud, Colo.         |
| Noble, Iva .....              | Leadville, Colo.        |
| Norton, Colorado .....        | Lamar, Colo.            |
| Nye, Mildred E. ....          | Hugo, Colo.             |
| Packard, Marion G.* .....     | Romeo, Colo.            |
| Packard, Merle J. ....        | Romeo, Colo.            |
| Paulson, Inez .....           | Akron, Colo.            |
| Platt, Alta .....             | Colorado Springs, Colo. |
| Piatt, Ruth .....             | Wellington, Colo.       |
| Price, Jessie .....           | Fort Collins, Colo.     |
| Pitts, Mrs. Harry .....       | Loveland, Colo.         |
| Poole, Martha H. ....         | Lamar, Colo.            |
| Poole, Mrs. Lena F. ....      | Lamar, Colo.            |
| Pressler, Florence .....      | Akron, Colo.            |
| Price, Delia .....            | Boulder, Colo.          |
| Ralston, Elizabeth .....      | Trinidad, Colo.         |
| Robbins, Dora .....           | Fort Collins, Colo.     |
| Robinson, Anna .....          | Colorado Springs, Colo. |
| Russell, Zayda .....          | Lamar, Colo.            |
| Sanderson, Margaret .....     | Aguilar, Colo.          |
| Saunier, Irene .....          | Akron, Colo.            |
| Schmohl, Helen .....          | La Porte, Colo.         |
| Schmitt .....                 | Colorado Springs, Colo. |
| Schooler, Paul .....          | Pauly, Colo.            |
| Shepherd, Mabel .....         | Roggen, Colo.           |
| Smith, Nellie .....           | La Porte, Colo.         |
| Small, Mrs. Grace C. ....     | Lamar, Colo.            |

|                         |                         |
|-------------------------|-------------------------|
| Smith, Mrs. A. B.       | Greeley, Colo.          |
| Stipp, Elizabeth        | Colorado Springs, Colo. |
| Stroh, Mabel            | Milliken, Colo.         |
| Stockwell, Ivy          | Berthoud, Colo.         |
| Stump, Lurline          | Hugo, Colo.             |
| Swanson, Viola          | Colorado Springs, Colo. |
| Thomas, Inez            | Hugo, Colo.             |
| Thompson, Addie         | Colorado Springs, Colo. |
| Talbot, Idonia          | Hugo, Colo.             |
| Tate, Emma              | Florence, Colo.         |
| Taylor, Ruth            | Lamar, Colo.            |
| Tefft, Maude            | Hugo, Colo.             |
| Templeton, Alma         | Berthoud, Colo.         |
| Textor, Matilda         | Colorado Springs, Colo. |
| Tweedale, Hannah        | Trinidad, Colo.         |
| Unfug, Gretchen         | Walsenburg, Colo.       |
| Utter, Mrs. Minnie      | Lamar, Colo.            |
| Van Meter, Marie        | Akron, Colo.            |
| Vicilli, Angelina       | Sopris, Colo.           |
| Victor, Beatrice        | Bald Mt., Colo.         |
| Walker, Jas. R.         | Lamar, Colo.            |
| Ward, Ruth              | Lamar, Colo.            |
| Watson, Albert          | Hugo, Colo.             |
| Walker, Edna            | Colorado Springs, Colo. |
| West, Frances           | Akron, Colo.            |
| Wilson, Mrs. Emma V. B. | Sanford, Colo.          |
| Wilkin, Esther          | Fort Collins, Colo.     |
| Wilson, Genevieve       | Milliken, Colo.         |
| Wiles, Edith            | Berwind, Colo.          |
| Wiles, Jennie           | Berwind, Colo.          |
| Williams, Claire        | Flagler, Colo.          |
| Williams, Frances       | Trinidad, Colo.         |
| Wilferson, Faye         | Lamar, Colo.            |
| Wifley, Ida             | Colorado Springs, Colo. |
| Wimmer, Ethel           | Durango, Colo.          |
| Winkleseth, Beatrice    | Akron, Colo.            |
| Work, Margaret          | Akron, Colo.            |
| Worrall, Laverne        | Colorado Springs, Colo. |
| Wright, Sarah M.        | Beuna Vista, Colo.      |
| Yewell, Mrs. Pearl      | Lamar, Colo.            |
| Yoder, Edith            | Hugo, Colo.             |
| Zeigler, Eunice         | Fort Collins, Colo.     |
| Zeigler, Cecil          | Fort Collins, Colo.     |
| Zimmerman, Ruth E.      | Lamar, Colo.            |

# State High School of Industrial Arts

FALL, WINTER AND SPRING QUARTERS

1920—1921

## NINTH GRADE

|                      |                      |
|----------------------|----------------------|
| Adams, John          | Jones, Mabel         |
| Allen, Jessie        | Jones, Henry         |
| Alles, Lydia         | Jones, Hazel         |
| Alexander, Leroy     | Johnson, Ruben       |
| Anderson, Norman     | Johnson, Lester      |
| Austin, Phyllis      | Johnson, Carl        |
| Baker, Eva           | Johnson, Kenneth     |
| Bardwell, George     | Just, Olga           |
| Beader, Mary         | Kimball, Floyd       |
| Billings, Goldie     | Larson, Fordis       |
| Burwick, Mabel       | McCain, Allen        |
| Burrows, Homer       | McDermott, Anna      |
| Capburn, Louise      | McMillan, Warren     |
| Capshaw, Faye        | Mashburn, Jack       |
| Cockerill, Mrs. Ella | Menefee, Wilma       |
| Copas, Alice         | Mitchell, Morris     |
| Coon, Rachel         | Morgan, Ralph        |
| Crawford, Marceline  | Morse, Laurence      |
| Curry, Marian        | Mosley, Loben        |
| Dale, Dorothy        | Moss, Dixon          |
| Darling, Grace       | Mount, Ruth          |
| Day, George          | Nuckolls, Margaret   |
| Daw, Florence        | Nutter, Alta         |
| Deaver, Sidney       | Oliver, Edna         |
| Dempewolf, Arnold    | Pearson, Lillie      |
| Dempsey, Audrey      | Peffer, Franklin     |
| Dempsey, Robert      | Peterson, Robert     |
| Deter, Doyle         | Pitts, Grace         |
| Dille, Frank         | Piper, Lester        |
| Dow, Bertha          | Rellstab, Richard    |
| Downer, Earl         | Reed, Nellie         |
| Downer, Hattie       | Runnels, Blanche     |
| Downer, Walter       | Sawyer, Pearl        |
| Draper, Paul         | Scribner, Jake       |
| Dunn, Esther         | Self, Mamie          |
| Eaton, Thomas        | Schoonmaker, Joe     |
| Eagan, Mamie         | Schnorr, Beatrice    |
| Emik, Roy            | Sherman, Ray         |
| Enright, Dorothy     | Sides, William       |
| Flint, Leona         | Smith, Harley        |
| Flint, Edward        | Smith, Clarence      |
| Frisley, Wallace     | Speuth, Paul         |
| Fuhrman, Beatrice    | Spomer, Marie        |
| Gallagher, Arthur    | Straight, Paul       |
| Gallegos, Otilia     | Straight, Dan        |
| Gallegos, George     | Tibbets, Blanche     |
| Garwood, Bernice     | Timothy, Glendon     |
| Garwood, Charline    | Travers, Harold      |
| Gearhart, Walter     | Tresler, Goldie      |
| Ginther, August      | Underhill, Vernie    |
| Glendenning, Earl    | Van Auken, Bernice   |
| Gordon, Laura        | Voris, Earl          |
| Gorton, Paul         | Vanlandingham, Helen |
| Gosselin, Marjorie   | Van Meter, Hattie    |
| Harbottle, Lucille   | Voris, Clyde Rilye   |
| Hays, Mary           | Wahe, Florence       |
| Highley, Ethel       | Waldo, Gage          |
| Humphrey, Carl       | Walsh, Mary          |
| Humphrey, Walter     | Wells, Mabel         |
| Huse, Nola           | White, Volney        |
| Imboden, Helen       | Wildolph, Edmond     |
| Irwin, Joseph H.     | Wilkinson, John      |
|                      | Wilkinson, Luella    |

## TENTH GRADE

|                  |                      |
|------------------|----------------------|
| Abscher, Ruth    | Conlin, Ambrose      |
| Armagost, Donald | Coon, Louisa         |
| Baker, Ruth      | Cooperrider, Leonard |
| Balent, Ella     | Culbertson, Virginia |
| Beesley, Hazel   | Dunn, Clyd           |
| Boyer, Howe      | Dunning, Nora F.     |
| Brake, Vera      | Engel, Chas.         |

Fredler, Mary  
 Freeburg, Philip  
 Fink, Orlo D.  
 Frame, Rolland  
 Fuerst, Minnie  
 Glidden, John  
 Glidden, George  
 Hale, Edna  
 Hatch, Bradford  
 Harris, Kenneth  
 Howe, Vera N.  
 Hofshulte, Agnes  
 Hubbard, Jessie H.  
 Johnson, Gervais  
 Johnson, Herbert  
 Jones, Thelma  
 Koehler, Henry  
 Kollman, Grace  
 Lance, Lewis  
 McGauthy, Pherman  
 McNeal, Imogene  
 Mayer, Edna  
 Meyer, Edwin  
 Monroe, Florence  
 Marr, Brenton  
 Morris, John F.  
 Mashburn, Charles

Potter, Ruby  
 Rolles, Ross  
 Romans, Helen  
 Royer, Rowena  
 Rucker, Margaret  
 Rucker, Martha  
 Seastrand, Conrad  
 Schlosser, Walter  
 Schnorr, Beatrice  
 Scott, Olive  
 Scribner, Icle  
 Singer, Dorothy  
 Sitzman, Lydia  
 Smith, Esther  
 Smith, Grace  
 Spencer, Edwin  
 Stephens, Eleanor  
 Streck, Lucille  
 Taylor, Arthur  
 Taylor, Charles S.  
 Tibbets, Vera  
 White, Raymond  
 Whitcarver, Leland  
 Williams, Dick  
 Windolph, Marie  
 Wood, Katherine

## ELEVENTH GRADE

Abler, Vera  
 Benson, Philomene  
 Benson, Marie  
 Bidwell, Watson  
 Billings, Fern  
 Copeland, Pearl  
 Dean, Helen  
 Dempewolf, Bertha  
 Dock, Lula  
 Dunn, Meyer  
 Eldridge, Gladys  
 Evans, Earl  
 Ewing, Cora  
 Ferris, Lela  
 Fink, Helen  
 Flood, Fred  
 Forester, Byron  
 Forward, Grace  
 Geiser, Irene  
 Glaister, Marguerite  
 Goerke, Robert  
 Gustafson, Alva  
 Hofshulte, Laura  
 Hall, Ila  
 Hargrove, Ralph  
 Hill, Myrtle

Jacobson, Mabel  
 Jones, Alice  
 Jappa, Richard N.  
 Justice, Esther  
 Lahman, Lula  
 Long, Ted  
 McFarland, Barbara  
 McLucas, Soloman  
 Menefee, Ray  
 Nutter, Margaret  
 Ostine, Daniel  
 Pritzel, Hazel  
 Piper, Lester  
 Schenck, Bessie  
 Schuster, Florence  
 Shields, Mildred  
 Sickles, Lola  
 Smith, Hanna  
 Smith, Edith  
 Smith, Estella  
 Sumner, Ruth  
 Tibbets, Mildred  
 Tisdell, Dorothy  
 Turner, Anna  
 Wheeler, Floyd  
 Williams, Mary

## TWELFTH GRADE

Anderson, Archie  
 Aultman, William  
 Ball, Elberta  
 Bardwell, George  
 Barnes, Mildred  
 Beauchamp, Hazel  
 Bennie Eleanor  
 Birdsall, Georgia  
 Blacke, Myrtle  
 Boyer, Edith E.  
 Brooks, Bernice  
 Butler, Anna  
 Christenson, Maxella  
 Clark, Fern  
 Cockerill, Ethel  
 Copeland, Blanch  
 Cooper, Ruth  
 Cunningham, Marie  
 Cunningham, John  
 Dake, Lula  
 Davidson, Mabel  
 Davis, John C.  
 Dunlap, Esther

Ethridge, Fern  
 Elmes, Elizabeth  
 Finley, Winono  
 Foley, Raymond  
 Forester, Glen  
 Floreth, Russell  
 Freeburg, Philip  
 Ginther, Carrie  
 Goerke, Evelyn  
 Goerke, Robert  
 Gustafson, Alice  
 Hamilton, Wilma  
 Harmon, Dan  
 Harrington, Genevieve  
 Henderson, Victoria  
 Hicks, Elizabeth  
 Huriemek, Vlasta  
 James, Thomas Floyd  
 Johnson, Ebba  
 Johnson, Verna  
 Jappa, Florence  
 Lance, Alice  
 Lawrence, Alfred

Lawrence, Alice  
Leibu, Edna  
McCaul, Belle  
McWhorter, Leslie  
Monroe, Gertrude  
Nims, Eleanor  
Oliver, Bernice  
Ostling, Herbert  
Palmer, Esther  
Paine, Milton  
Peterson, Ellen  
Price, Bill  
Rea, Boyd  
Root, Alice  
Seastrand, Edna  
Seastrand, Ralph

Schlosser, Renard  
Sickles, Bonnie  
Smith, Florence  
Stroh, Mabel  
Upton, Dorothy  
Van Why, Susie  
Ware, Mabel  
Warner, Dorothy  
Walter, Helen  
Watkins, Louise  
Watson, Bidwell  
Williams, Lila  
Wood, Louis  
Wood, Howard  
Young, Leonard



# Training School

FALL, WINTER AND SPRING QUARTERS

1920—1921

## KINDERGARTEN

Alexander, Gilmore  
Ankeney, Charles Jr.  
Baab, George Willson  
Bain, Enola  
Baker, Robert Elwood  
Baker, Robert Maclane  
Bean, Joe  
Bell, Chauncey Frederick  
Bell, Donald  
Blake, Robert  
Bliss, Charlotte  
Bliss, Karl Edward  
Boehm, Iva  
Bonell David Andrew  
Bradfield, Lois  
Bradford, Samuel  
Burnett, Marjory  
Bush, Catherine  
Cameron, Gracene  
Christopher, Camille  
Clayton, Jack  
Cline, James  
Clouse, Maclyn  
Cooper, Billy  
Cremeans, Betty Jean  
Cremeans, Charles  
Crozier, John Dewitt  
Freeman, Norman  
Freese, Mary Etta  
Gladston, Billy  
Gooden, Orville Grant  
Gordon, Donald Leroy  
Halbert, Aleyn  
Holmes, Nadine  
Houston, Joe Burton  
King, James  
Kitts, Maxine  
Longaker, Buddy  
Lutes, Williard Teller

Marshall, Clarence  
Martin, Yvonne  
Moeller, John Lewis, Jr.  
Moody, Lucy Byrd  
Moore, James A.  
Morgan, Jesse Elizabeth  
Murch, Clarence  
Netherton, Mary Weldon  
Norcross, Billy  
Norton, James  
Oliver, Winifred Wilson  
Orton, Myron  
Ostrander, George Robert  
Packard, Nancy  
Pringle, Evelyn  
Quinn, Mary  
Reed, Robert  
Rhoads, Eugene Dale  
Richardson, Bill  
Roberts, Lawrence  
Rugh, Robert  
Scott, Robert  
Sherman, Nora Bell  
Shumaker, Jean Lucille  
Smith, Edna  
Spear, Dorothy  
Spring, Paul  
Starkey, James Jr.  
Sweetland, Ramadell  
Varvel, Virginia Lee  
Wheeler, Sarah  
Whipple, Paul  
Williams, Katherine  
Willson, Ella  
Willson, Richard  
Wolfe, Bruce  
Work, Bobby  
Wright, Frank

## FIRST GRADE

Anderson, Beulah  
Arkeney, Margaret  
Armstrong, Robert  
Arnold, Willard  
Bass, Albert  
Burnett, Marjory Helen  
Boye, Russell  
Craft, Ben  
Criswell, Eliz. Ann  
Castleman, Willard  
Donner, Carles  
Epplen, Jane  
Finley, Mary Eliz.  
Flood, Norma  
Freeman, Elinor  
Fuqua, William  
Harrington, Mary E.  
Hollister, Beverly  
Houtchens, Ewart  
Hovinga, Berman  
Humphrey, Ruth  
Jackson, Doris  
Johnson, Mildred  
Johnson, Verna  
Kell, Lois Marie  
Kellorn, Eileen  
Linden, Herbert  
Linder, Charles

McLeod, Roderick  
Maine, Mary Elizabeth  
Messer, William  
Meyer, John  
Murch, George  
Pattee, Allan  
Peterson, Elizabeth  
Phelps, Jane  
Pierce, Robert  
Richardson, Mabel  
Rooker, Marguerite  
Schrader, Paul  
Schumaker, Jean  
Schutz, Marvin  
Sitzman, Ruth  
Skold, Arthur  
Snyder, Elizabeth  
Spring, Paul  
Stephens, Robert  
Tallman, Clara  
Turner, Zella  
Walker, Richard Clay  
Walters, Johnnie  
Welsh, Arthur  
Welsh, Rosella  
Wheeler, Charles  
Yingst, Leslie

## SECOND GRADE

Barclay, Florence  
Bean, Frank

Bell, Iris  
Benton, Edwin

Bradford, Martha  
 Campbell, Edgar  
 Clem, Verna  
 Colvin, Margaret Bell  
 Craft, George  
 Craft, David  
 Crouse, Janet  
 Davis, Dorothy  
 Dempsey, Doris  
 Dunn, Clara  
 Elam, Elizabeth  
 Flanagan, Robert  
 Freeman, Elizabeth  
 Freeman, Eugene  
 Forward, Zoe  
 Gilbert, Madeline  
 Ginther, Mary  
 Haun, Sylvia  
 Humphrey, Edward  
 Imboden, William Neal  
 Johnson, Verna  
 Kinney, Glen

Linden, Herbert  
 Magnusen, Fred  
 Moeller, Mabel  
 Phelps, Jean  
 Potts, Maura  
 Richardson, Gretchen  
 Samuelson, Frances  
 Selberg, Herman  
 Smith, Esther  
 Smith, Jesse  
 Streck, Vincent  
 Strohl, Lester  
 Styer, Albert  
 Sweetland, William  
 Toffler, Mary Jane  
 Waldhauser, Evelyn  
 Waldruff, Lois  
 Waggoner, Bruce  
 Weigland, Samuel  
 Williams, Jane  
 Zeis, Rita

## THIRD GRADE

Alles, Victoria  
 Armentrout, Evelyn  
 Baehrens, Deric  
 Baker, Arthur  
 Beuhler, Walter  
 Castleman, Regina  
 Challengren, Patsy  
 Coon, Vivian  
 Cooper, Bess  
 Crouse, Lansing  
 Dale, Joyce  
 Dunn, Thomas  
 Edwards, Wallace  
 Erdley, Howard  
 Flanagan, Robert  
 Freeman, Eugene  
 Gooden, Eulah  
 Goulette, Cheshaugen  
 Halpin, Billy  
 Harbottle, Dorothy  
 Johnson, Alice  
 Johnson, Kathryn

Knoll, Otto  
 Larsen, Merle  
 McMillan, Mamie  
 Meyer, Edward  
 Milton, Paul  
 Moses, Alice  
 Muller, Arthur  
 Owens, Marguerite  
 Rhoads, Leland  
 Roberts, Irene  
 Roberts, Roland  
 Salberg, Herman  
 Samuelson, Frances  
 Spring, Ruth  
 Thompson, Paul  
 Waggoner, Mona  
 Weigland, Marie  
 Williams, Blair  
 Wilson, John  
 Wilson, Rendall  
 Woldorf, George  
 Yoxhall, Lorna

## FOURTH GRADE

Ament, Elmira  
 Badger, Robert  
 Bass, Louise  
 Bickel, George  
 Bowers, John  
 Boye, Carol  
 Breedon, Lyle  
 Campbell, Howard  
 Carbaugh, Nellie  
 Challengren, Maxine  
 Coon, Billie  
 Culbertson, Grace  
 Dale, Donald  
 Donner, Ervin  
 Ellis, Ruth  
 Field, Harold  
 Fleming, Alma  
 Ginther, Elizabeth  
 Gooden, Herbert  
 Hargrove, Helen  
 Harrington, Delia

Holt, Albert  
 Houtchens, Barnard  
 Kendel, Mary  
 Kimbrel, May  
 Kinney, Carol  
 Knowl, Adolph  
 Lawrence, Elmer  
 Lehan, Pat  
 Linden, Sigfred  
 Mayer, Wilmer  
 Mayer, Mary  
 Miller, Marshall  
 Moeller, Roy  
 Moses, Marie  
 Porter, Cyrus  
 Segel, Paul  
 Strohl, Ruben  
 Styer, Mabel  
 Tallman, Rena  
 Thompson, James

## FIFTH GRADE

Ahlstrand, Charline  
 Benton, Vera  
 Carrico, Oscar  
 Clem, Irene  
 Cockerill, Albert  
 Dale, Donald  
 Dale, Kenneth  
 Dempewolf, Lawrence

Detrich, Charles  
 Dungan, Mabel  
 Edwards, George  
 Edwards, Douglass  
 Ellis, Burr  
 Freek, Louise  
 Freek, Raymond  
 Harrington, Nellie  
 Haubrich, George

Humphrey, Lucille  
 Knight, Eleanor  
 Knight, Pearl  
 McCain, Jesse  
 McDermott, Thomas  
 Owens, Dorothy  
 Roberts, Vivian  
 Roles, Twyla

Smith, Robert  
 Spencer, Cleo  
 Stroh, Harry  
 Turner, Lester  
 Turner, Ollie  
 Underhill, Marion  
 Wilson, Sarah  
 Wright, Homer Lee

## SIXTH GRADE

Ament, Herman  
 Alles, Amelia  
 Armentrout, Ruth  
 Askins, Irma May  
 Baab, Clarence  
 Baker, Eugene  
 Benway, Ruth  
 Brethauer, Daniel  
 Brethauer, Rachel  
 Brethauer, Samuel  
 Copeland, Verna  
 Culbertson, Ruth  
 Dale, Glenn  
 Ecker, Clifford  
 Ellis, Victoria  
 Finke, Florence  
 Freeman, Peter  
 Gaines, Alice  
 Galland, Harold  
 Green, Gretchen  
 Gross, Chester  
 Hall, Marion  
 Harbaugh, Kathleen  
 Hollister, Merlin  
 Huffsmith, Andy  
 Kirk, Clarence  
 Knight, Thelma

Lehan, Edward  
 Linden, Carl  
 Linder, Phyllis  
 Long, Jean  
 Martin, Clifford  
 McAllister, Paul  
 McCain, Lawrence  
 McCave, Donald  
 Meyers, Dale  
 Miller, Romola  
 Milton, Ruth  
 Mitchell, Thomas  
 Moeller, Nettie  
 Monroe, Eunice  
 Moser, Mary  
 Prunty, Beulah  
 Roberts, Vivian  
 Royer, Dean  
 Schutz, Eunice  
 Seastrand, Eugene  
 Sholdt, Roy  
 Skold, Arvid  
 Smith, Johnnie  
 Thompson, Ruth  
 Waldhauser, Ruth  
 Williams, Dorothy  
 Wilson, Minnie  
 Woldruff, Loren

## SEVENTH GRADE

Arnold, Ruby  
 Badger, Alice  
 Baldwin, Jessie  
 Bower, John  
 Bowman, Floyd  
 Bowman, Lodema  
 Carbaugh, Andy  
 Carlson, Stanley  
 Champlain, Richard  
 Clark, Bert  
 Clem, Aaron  
 Coon, Elberta  
 Crist, Grace  
 Crist, Van  
 Cross, Neal  
 Dillon, George  
 Eaton, Bourne  
 Ellis, Virginia  
 Erdley, Ethel  
 Ericson, Alvin  
 Field, Martin  
 Finke, Arthur  
 Flanigan, James  
 Fleming, Ruth  
 Gaines, Alice  
 Garland, Henry  
 Gates, Ruth  
 Gosselin, Leslie  
 Ginther, Clara  
 Hill, Clifford

Houtchens, Kathryn  
 Howell, James  
 Johnson, Hilma  
 Joliff, Russell  
 Mann, Claron  
 Meyers, Harold  
 McCain, Floyd  
 Morris, Bob  
 Nolte, Rose  
 Norcross, Edna  
 Nutter, Charles  
 Odell, Alma  
 Owens, Harold  
 Roberts, John  
 Roberts, Lucille  
 Roewe, Eleanor  
 Salberg, Arthur  
 Schwartz, John  
 Scott, Gladys  
 Sitzman, Mollie  
 Soper, Edna  
 Spring, Esther  
 Spring, Martin  
 Spring, Walter  
 Strohauser, Ted  
 Swartz, John  
 Turner, Cora  
 White, Marion  
 Wyant, Gaily  
 Wynne, Alice

## EIGHTH GRADE

Absher, Ruby  
 Ahlstrand, Carol  
 Alles, Lydia  
 Alles, Mary  
 Anderson, Norman  
 Austin, Phyllis  
 Baker, Mardelle  
 Barber, Mary  
 Bickel, Margaret

Brown, Orville  
 Brown, Ralph  
 Brug, Pauline  
 Buchanan, Gilbert  
 Burrows, Homer  
 Burrows, Winifred  
 Carr, Grace  
 Carlso, Carl  
 Carlson, Hillis

Carlson, Stanley  
Carter, Emma  
Coleman, Phyllis  
Copas, Alice  
Culbertson, Grant  
Darling, Grace  
Davis, Blanche  
Day, George  
Dempsey, Audrey  
Dempsey, Robert  
Deter, Doyl  
Dille, Frank  
Eaton, Thomas  
Ellis, Margaret  
Ellis, Victoria  
Flannigan, James  
Flint, Leona  
Galland, Alva  
Glendenning, Earl  
Gosselin, Marjorie  
Gorton, Paul  
Grayson, George  
Hadden, Margaret  
Harrington, Manuel  
Henderson, Madge  
Humphrey, Walter  
Jarrett, John  
Johnson, Marion  
Johnson, Thelma  
Kimbrel, Belle  
Knecht, Erminie

Larson, Fordis  
Long, LeLand  
Mayer, Emanuel  
Mayer, Jacob  
McDaniels, Lura  
Meyers, Harold  
Miller, Gurdon  
Mitchell, Delphine  
Morris, Chester  
Morse, Mabel  
Neill, Margaret  
Nutter, Claire  
Oliver, Edna  
Pitts, Grace  
Robinson, Percy  
Salberg, Arthur  
Smith, Hazel  
Spath, Paul  
Stephens, Pauline  
Timothy, Glendon  
Travers, Harold  
Tressler, Goldy  
Thompson, Joe Frank  
Underhill, Verlie  
Van Scoy, Clarence  
Waldhauser, Damon  
Walsh, Mary  
Whipple, Howard  
Wood, William  
Wynne, Rosie

# Demonstration Schools

## Ashton

### FIRST GRADE

Alkire, Herbert  
Brethauer, Fred  
Coleman, Mary Cecilia  
Float, Fred  
Nieberger, Nellie  
Peterson, Melvin  
Riege, David

Alkire, Forest  
Briggs, Beverly  
Drake, Freda  
Gustafson, Gunhild  
Nieberger, Mary  
Redmond, Alfred  
Rehmer, Fred

### SECOND GRADE

Cargias, Joes  
Drake, Allison

Coleman, Gertrude  
Riege, Willie

### THIRD GRADE

Brethauer, David  
Carlson, John  
Drake, Clyde  
Nieberger, Mary  
Rehmer, Mary  
Riege, Christ  
Spencer, Cleo  
Zimmerman, Edward

Balch, Edith  
Coleman, Harris  
Mossberg, Carl  
Peterson, Evelyn  
Redmond, Roy  
Smith, Ethel May  
Selberg, Mildred

### FOURTH GRADE

Rehmer, James

Drake, Ruth

### FIFTH GRADE

Brethauer, Dorothy  
Hallister, Derwood  
Nieberger, Crist

Brethauer, Anna  
Mossberg, Mildred  
Riege, Lydia

### SIXTH GRADE

Green, Appeliene  
Lambert, Beulah  
Redmond, Robert

Johnson, Robert  
Nieberger, Charlie

### SEVENTH GRADE

Carlson, Albion  
Nieberger, Alex  
Rehmer, Charlie

Cooperrider, Katherine  
Rehmer, Alice  
Zimmerman, Henry

### EIGHTH GRADE

Alkire, Faye

Mossberg, Clarence

## Brocewell

### FIRST GRADE

Barber, Helen  
Eurich, Raymond  
Fritzler, Carl  
Hample, Jake  
Heiser, Clara  
Rash, George

Brethauer, Rachel  
Fritzler, Annie  
Gretzel, Lester  
Heffel, Mary  
Heiser, Esther  
Simon, Herman

### SECOND GRADE

Brethauer, John  
Brunner, Frieda  
Firestein, Mary

Brug, Effie  
Buxman, Esther  
Kruas, Robert

### THIRD GRADE

Barber, Herbert  
Buderns, Jacob  
Firestein, John  
Knaus, Emma  
Rosh, Eva  
Scheurn, Dana  
Sasz, Anna

Eurich, Minnie  
Kaiser, Jake  
Nagel, Minnie  
Rosh, Pauline  
Sandstrom, Charlotte  
Weinmeister, Mollie

|                   |                    |                     |
|-------------------|--------------------|---------------------|
| FOURTH GRADE      |                    |                     |
| Barber, Richard   | Brethauer, Jake    | Brethauer, Emma     |
| Buxman, Sam       | Klaus, Mary        | Brummer, Carl       |
| Simon, Jake       |                    | Kaiser, Anna        |
|                   |                    | Rosh, Dave          |
|                   |                    | Weinmeister, John   |
| FIFTH GRADE       |                    |                     |
| Hemple, John      | Hoffman, Edward    | Hettinger, George   |
| Pfalzgraf, Asa    | Sasg, Joe          | Knous, Dollie       |
|                   |                    | Pfalzgraf, Marvin   |
| SIXTH GRADE       |                    |                     |
| Brethauer, Lola   | Buxman, Katie      | Brunner, Alex       |
| Fritzler, Henry   | Maul, Henry        | Eurick, Effie       |
|                   |                    | Hoffman, Rose       |
| SEVENTH GRADE     |                    |                     |
| Hettinger, Jake   | Klaun, John        | Kaiser, Henry       |
|                   |                    | Weinmeister, Alex   |
| Hazelton          |                    |                     |
| FIRST GRADE       |                    |                     |
| Achziger, Herman  | Baird, Ruth        | Williams, Velva     |
| Miller, Ernest    | Schaub, Tomy       | Andrews, Harry      |
| Stark, Elsie      | Taylor, Marguerite | Barhydt, Clifford   |
|                   |                    | Nagle, Willie       |
|                   |                    | Schneider, Victor   |
|                   |                    | Stark, Mabel        |
| SECOND GRADE      |                    |                     |
| Andrews, Esther   | Geiseck, Henry     | Andrews, Pauline    |
| Moody, Donald     | Nagle, Emanuel     | Hergert, Esther     |
| Webster, Billy    |                    | Nagle, Jake Jr.     |
|                   |                    | Steiber, Opal       |
|                   |                    | Williams, Ellis     |
| THIRD GRADE       |                    |                     |
| Ashzeiger, Leah   | Miller, Ernest     | Lipsack, Herman     |
| Peterson, Milford |                    | Moody, Floyd        |
|                   |                    | Schneider, Pauline  |
| FOURTH GRADE      |                    |                     |
| Achziger, Dan     | Geisick, Marie     | Geisick, Harry      |
| Messer, Minnie    | Stark, Selma       | Messer, Jake        |
|                   |                    | Stark, Harold       |
|                   |                    | Webster, Maude      |
| FIFTH GRADE       |                    |                     |
| Ashziger, Esther  | Bernhardt, Kate    | Andrews, Jake       |
| Humbigner, John   | Peterson, Wesley   | Hergert, Amelia     |
| Rasmussen, Paul   |                    | Lipsack, Rubin      |
|                   |                    | Robertson, Nathan   |
| SIXTH GRADE       |                    |                     |
| Hatch, Gladys     | Koehler, Lena      | Bentley, Earl       |
| Messer, Laura     | Stark, Henry       | Robertson, George   |
| Stiber, Mary      |                    | Stark, Amelia       |
|                   |                    | Steinmiller, Jake   |
|                   |                    | Williams, Zelma     |
| SEVENTH GRADE     |                    |                     |
| Baird, Helen      | Bolander, Clarence | Baird, Viola        |
| Miller, Leona     |                    | Heimbinger, Lena    |
|                   |                    | Miller, Rachel      |
| EIGHTH GRADE      |                    |                     |
| Butham, Scott     | Koehler, Dan       | Carlson, Paul       |
| Rasmussen, Harold | Whitman, Irene     | Messer, Willie      |
|                   |                    | Steinmiller, Mollie |
|                   |                    | Zigler, Walter      |
| NINTH GRADE       |                    |                     |
| Bentley, Esther   |                    |                     |

# ATTENDANCE SUMMARY

## COLORADO STATE TEACHERS COLLEGE

SCHOOL YEAR 1920-1921

FALL, WINTER, SPRING AND SUMMER QUARTERS

### I. TEACHERS COLLEGE:

|  |      |      |
|--|------|------|
| Fall, Winter and Spring Quarters (no duplicates) | 683  |      |
| Special Students .....                           | 56   |      |
|  |      | 739  |
| Summer Quarter (no duplicates) .....             | 1810 |      |
| Special Students .....                           | 76   |      |
|  |      | 1886 |
| Total .....                                      |      | 2625 |

### II. SCHOOL OF ADULTS:

|  |     |     |
|--|-----|-----|
| Fall, Winter and Spring Quarters (no duplicates) | 31  |     |
| Summer Quarter (no duplicates) .....             | 140 |     |
|  |     | 171 |
| Total .....                                      |     | 171 |

### III. EXTENSION:

|                      |     |      |
|----------------------|-----|------|
| Group Plan .....     | 475 |      |
| Individual Plan      |     |      |
| College .....        | 424 |      |
| High School .....    | 24  |      |
|                      |     | 448  |
| Institute Plan ..... | 183 |      |
|                      |     | 1106 |
| Total .....          |     | 1106 |

### IV. STATE HIGH SCHOOL OF INDUSTRIAL ARTS:

|  |     |     |
|--|-----|-----|
| Fall, Winter and Spring Quarters (no duplicates) | 321 |     |
| Summer Quarter (no duplicates) .....             | 95  |     |
|  |     | 416 |
| Total .....                                      |     | 416 |

### V. TRAINING SCHOOL:

|  |     |     |
|--|-----|-----|
| Fall, Winter and Spring Quarters (no duplicates) | 492 |     |
| Summer Quarter (no duplicates) .....             | 397 |     |
|  |     | 889 |
| Total .....                                      |     | 889 |

### VI. DEMONSTRATION SCHOOLS:

|                                   |    |      |
|-----------------------------------|----|------|
| Ashton .....                      | 54 |      |
| Bracewell .....                   | 60 |      |
| Hazelton .....                    | 70 |      |
|                                   |    | 184  |
| Total .....                       |    | 184  |
| Grand Total (no duplicates) ..... |    | 5391 |

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| Credits .....                    | 14   | Political Science .....           | 56   |
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# **COLORADO STATE TEACHERS COLLEGE**

*A Member of*

**The American Association of Teachers  
Colleges**

*and of*

**The North Central Association of Colleges  
and Secondary Schools**

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**GREELEY, COLORADO**

Colorado  
State Teachers College  
BULLETIN

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SERIES XXI      OCTOBER 1921      NUMBER 7

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COURSE OF STUDY  
*of the*  
ELEMENTARY TRAINING  
SCHOOL



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Published Monthly by State Teachers College, Greeley, Colorado. Entered as Second-Class Matter at the Post Office at Greeley, Colorado, Under the Act of August 24, 1912



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## Foreword

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It is impossible to give credit separately to all the sources from which the material has been drawn for this course of study. Many publications and persons have given valuable assistance. Special indebtedness is acknowledged to the teachers of the ELEMENTARY TRAINING SCHOOL and COLLEGE who have taken any part in the writing of this course of study. The director of the training schools has attempted to unify the material on the basis of a definite series of modern educational principles.

W. D. ARMENTROUT,  
Director of Training Schools.

## Elementary Training School

The elementary training school is an educational laboratory where educational problems are being worked out under the direction of skilled experts. New methods that save time, new schemes for better preparing the children for the real needs of life, new curricula and courses of study are continually considered and tried out, provided they are sound educationally. The aim is not to develop a school that is entirely different from the elementary schools of the state but to reveal conditions as they are and AS THEY SHOULD BE. The elementary training school strives to be the leader in the state in all that is new and modern. Effort is made to maintain such standards of excellence in the work that it may at all times be offered as a demonstration of good teaching under conditions as nearly normal as possible in all respects.

The elementary training school is a complete elementary school unit containing kindergarten, first, second, third, fourth and fifth grades. The sixth, seventh and eighth grades are organized on the departmental plan for the purpose of exploring and diagnosing, earlier than usual, the interests, attitudes, and abilities of pupils, and at the same time provide better for individual differences. This organization affords a splendid opportunity for studying junior high school problems.

### AIMS AND PURPOSES OF ELEMENTARY EDUCATION.

It is the purpose of the Elementary School to provide experience to meet the common needs of all, regardless of sex, vocation or social status. Its content is made up of those activities in which every one must participate with a like degree of knowledge and skill and with like attitude and appreciation in order that there may be an efficient social life. Its activities, values and ideals may be regarded as "the common denominator of life for the whole nation." It deals with children during a period in their lives when their general tendency to action, thought and feeling, are most nearly alike and most susceptible to common appeal. It deals with social problems which are the same for all. It applies itself to the development of that knowledge, of those habits, attitudes and ideals and of those appreciations which enable people to understand each other, to share in the common life, and to co-operate in realizing common purposes. This, of course, does not mean that the facts of individual differences in children are to be neglected in the elementary school. In method of teaching, individual differences are of profound importance, but the content of activities—"the understanding of how the needs of life are met, the experience of the race in living, the value to life of interests and activities as found in history and literature, the ways of recreation, present and past, the tools used by man as reading, writing, number, drawing, mechanical skills and devices for group activity"—may and should be the same in the elementary school for all children everywhere. This content appropriate for the elementary school is equally of interest and value to boys and girls.

Only that school work which bears a vital relationship to some worthy life purpose can be justified. Only that activity which can be appreciated for its worth by the pupil can be said to be truly educative. If no identity can be appreciated by the pupil between the activities which he experiences in school and some life purpose to which it contributes there is no basis whatever for attributing any life value to the activity. Schools have no basis for existence except that of providing helpful means and experiences in meeting the problems and various needs of life itself. The elementary school, therefore, justifies itself in the measure in which it equips individuals to engage in the activities of life efficiently. Only as the knowledge, habits, skill, attitude, ideals and appreciations developed in the elementary school are operative in meeting the problems of life are these of any worth.

## FACTORS DETERMINING A COURSE OF STUDY.

The problem in selecting the content of the elementary school curriculum is that of first determining the objectives of life in terms of different needs. Second, finding the means or forms of activity best adapted to meet these needs, and third, presenting these needs with the activities for meeting them.

Dr. Bonser classifies the general aims of life in terms of four large fields of purposeful activity. First, the health activities of everyday life. Second, the practical activities of everyday life. Third, the co-operating activities of everyday life, and fourth, the recreational activities of everyday life. If we consider these aims then the purposes of the elementary school are to provide a basis for health equally desirable for all; to develop practical efficiency in activities shared by all in daily work and intercourse; to develop ideals and habits of group activity of equal value to all; and to cultivate means of recreation common to all.

Many similar classifications can be made of the aims of the school in terms of life purposes. Any normal individual can be found at any time living, thinking, feeling, and acting in one or another of five major fields of activity; in the home, at work, at play, in the field of social intercourse, or in organized community life. These are the five classes of relationships and activities for which the elementary school must educate its pupils.

In studying the forces which brought the school into existence we get another similar classification. The school is an institution established, organized and maintained by society for the purpose of developing its own efficiency. Social efficiency has been analyzed into five types; physical efficiency, moral efficiency, vocational efficiency, avocational efficiency and civic efficiency. Therefore the elementary school must equip its pupils with the necessary knowledge, habits, skills, attitude, ideals and appreciations which will enable them to become efficient in health, in morality, in recreation, in work and in citizenship.

In accomplishing all of these large life problems the only means of growth is by effective and satisfied participation in these activities. Meeting each day's needs of childhood is the best preparation for meeting the needs of adult life. Therefore, the curriculum should be, as far as possible, a series of purposeful activities in meeting life's needs in the best way. The teachers' problem lies in helping to bring about the filling of these needs in some orderly arrangement, and in so directing the activities that pupils discover and use the most pertinent knowledge and the best methods of procedure.

A course of study can never be finished but is always in the process of making. Because of the ever changing forms of activity by which the purposes of life are realized the curriculum must correspondingly change. As new needs arise, as new methods of meeting needs are developed the curriculum must respond to all of these changes which are desirable and more effective in meeting life's purposes. This includes the dropping from the curriculum of activities that are no longer used and of less value than newer methods.

## BIBLIOGRAPHY ON AIMS OF EDUCATION.

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Kendal & Mirick, "How to Teach the Fundamental Subjects." Chapter I.  
Moore, E. C., "What Is Education." Chapters I-X. Ginn and Company.  
Moore, E. C., "What the War Teaches Us About Education." Chapter I, II, III, IV, XIV, XV. Macmillan Company.

## Aims and Methods in Habits of Study

1. Pupils must be convinced that getting the meaning of the author from a printed page is quite different from repeating meaningless expressions found there.
2. Pupils must be taught to eliminate from consideration material of minor importance if important matter is to be given proper attention.
3. Ability to formulate intelligent questions is an indication that the pupil has some knowledge of the related and essential facts in the paragraph or the page under discussion.
4. Making a simple outline after having discovered the essential facts is a great help in memorizing desirable information.
5. Much valuable time can be saved if pupils have an adequate knowledge of how to use a textbook.
6. Special practice should be given in the use of the index, table of contents, references, the appendix, use of foot-notes, chapter, section and paragraph headings, and list of general references.
7. Pupils should be given training in selecting important things in a sentence, paragraph and page.
8. Pupils should be given training in writing intelligent questions about a paragraph or page.
9. Pupils should be given training in collecting information suggested by simple outline.
10. Skill in use of chapter, section and paragraph headings.
11. Use of outlines in summarizing thought and selecting important facts.
12. Definite reference should be given in the assignment to particular paragraphs or sections which pupils read and tabulate the important facts that furnish the desired information.
13. Discover whether pupils understand adult expressions used in text books.
14. Pupils should be required to prove their statements by reference to the text book.

### BIBLIOGRAPHY.

- Dearborn, Geo., "How to Learn Easily," Little, Brown & Co.  
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Whipple, Guy M., "How to Study Effectively," School and Home Publishing Co.  
Wilson, H. B., "Training Pupils to Study." Warwick and York.

# Arithmetic

In everyday life, the facts and processes of arithmetic are used only in situations requiring relationships of measurements in units of quantity or value. The simplest and least difficult question is that of mere serial order—how many? Beyond this are the questions of how much, in terms of inches, feet, pounds, dozens, and so on, and at what cost, or profit, or loss, in terms of money values on the basis of these various units. The general daily uses of arithmetic are chiefly those concerned with the measurements and values of the goods used for food, clothing, furnishings, utensils, tools, and the means of communication, transportation and recreation. In supplying ourselves with these or in supplying them to others, arise most of the problems calling for the use of number as a tool. In interpreting the meaning of situations of which we are a part, or of which we read, a knowledge of number is required, often involving quantities, values and relationships quite beyond those which enter into our direct manipulation of amounts and processes. For direct usage as a tool, habits of mental manipulation highly accurate and rapid are required; for interpretation, an understanding of meaning and significance only is necessary.

Surveys of the social usage of arithmetic emphasize the relatively small range of kinds of situations calling for the use of arithmetic, the relatively small quantities and values involved, the relatively small number of processes, and the great frequency with which these processes recur. Such surveys show a fair degree of proficiency in the manipulation of processes as such—a possession of the facts and processes of arithmetic—but they show also a deplorable want of knowledge of how to use these processes in solving many of the important problems of daily life with economy and efficiency. The work in the schools has developed the tool without teaching its use. When we recall how largely the work in arithmetic has been taught as a thing apart and separate from the situations in life in which it is used the result is not surprising. The remedy lies in developing, as far as possible, the facts and processes of arithmetic as parts of projects or problems requiring their use as tools and means of interpretation.

## An Outline of Elementary Mathematics

- I. Counting Numbers.
- II. Reading Numbers.
  - (1) Integers-Arabic and Roman.
  - (2) Common Fractions.
  - (3) Decimal Fractions.
  - (4) Denominate Numbers.
- III. Writing Numbers.
  - (1) Integers-Arabic and Roman.
  - (2) Common Fractions.
  - (3) Decimal Fractions.
  - (4) Denominate Numbers.
- IV. The Processes
  - (1) Addition
  - (2) Substraction
  - (3) Multiplication
  - (4) Division

|   |    |  |
|---|----|--|
| } | Of | Integers,<br>Common Fractions,<br>Decimal Fractions. |
|---|----|--|
- V. Percentage Applications
  - (1) Trade and Commercial Discount.
  - (2) Profit and Loss.
  - (3) Commission.
  - (4) Simple Interest.

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VI. The following subjects treated largely for information purposes:

- (1) Taxes.
- (2) Insurance.
- (3) Mortgages.
- (4) Stocks and Bonds.
- (5) Bank Discount.
- (6) Compound Interest.
- (7) Accounts.

VIII. Denominate numbers in useful problems of community value.

VIII. Concrete Geometry—intuitional and observational.

- (1) Geometry of Form
  - (a) What is the shape of the object?
- (2) Geometry of Size
  - (a) How large is the object?
- (3) Geometry of Position
  - (a) Where is the object?
- (4) Supplementary Work
  - (a) Squares and square roots.
  - (b) Pyramids.
  - (c) Cones and spheres.

IX. Algebra

- (1) Simple formulas
- (2) The equation
- (3) The graph
- (4) Negative numbers
- (5) Algebraic operations
- (6) Practical use of algebra in problems in business.

## First Grade

The purpose or aim in the First Grade is to develop by concrete means, a number sense which shall later lead to skill and accuracy. All material and its use should be determined by the child's needs and experience.

Very little time is given to formal number work as such. The number of groups of things of a kind all about the child stimulate his interest in counting and he develops the notion of serial relations almost incidentally. Reading numbers as found on pages of books, calendars, on streetsigns, at corners, on houses, on clocks, etc. All these and many more give splendid opportunity for learning the number symbols. Real problems should arise which involve the use of inch, foot and yard; pint, quart, half gallon and gallon; pound and half-pound; dozen and half dozen; cent, nickel, dime, quarter and dollar.

Near the close of the year several short periods a week may be used for practice if the number facts reveal a need for greater facility.

## Second Grade

The second year begins dealing more formally with number relations and attempts abstraction. In the second (and each subsequent year in the primary grades) the teacher must not lose sight of the two phases of number work—that of using number for immediate needs, and that of gaining control over the symbols of numbers. Advantage should be taken of all opportunities for using number. They occur in measuring and making booklets, seed envelopes, card boxes, calendars, in other forms of construction, and in counting and keeping the score in games. The formal work should be introduced, if possible, in answer to some need. A pupil must learn to make figures well and rapidly, but the immediate end may be set up of learning to make figures well and rapidly in order to keep the score in games. The formal teaching of number begins, practically, in the second year. The pupil's equipment is the ability to count objects and to recognize figures. This ability



varies in different pupils, but in each case it forms the basis from which to proceed. Counting, repeating the number names in a series, is the primitive response to a "how many" situation. It is customary to teach second-grade pupils to count to one hundred orally, and to write figures to one hundred. In the writing, for convenience, the figures are often grouped in tens.

It is possible to use this device much more effectively than is usually done. If, before emphasizing the oral counting, the pupil can have in his hand a number scale in large, clear figures, as in Table 1, time will be economized.

The counting should be first from this scale, so that each number name corresponds to a symbol. When the child says "eleven, twelve, thirteen, fourteen," he looks at the figures "11, 12, 13, 14." He thus organizes the numbers 1-100, so that the numbers have certain space relationships in his mind and can be easily recalled. The work on form must follow and grow from work which is concrete. These tables, through the visualization of symbols and space relationships of numbers, are designed to assist in the process of abstraction. If in counting from memory the pupil hesitates; he should look at once at his number scale, and, as in the beginning, read the figures, after which he can repeat them readily. Visualization should be emphasized in the early formal work.

The first counting should be by 1's; begin at 1, count to 100. Follow by counting in groups of 10; in the last column, J, begin with 10, count to 100; first column A, begin with 1 and count by 10s to 91; in the same way count each column by 10's. Count each column in reverse order, for example, in column B begin at 92, count to 2. Pupils should learn to write figures to 100. An immediate use is the making of inch-square number cards on gray bogus paper. These are kept in boxes or trays and furnish a profitable form of seat work. The pupils place the cards on the desk to show the groups of 10's, A-J.

## Table I

### NUMBER SCALE.

|     | A  | B  | C  | D  | E  | F  | G  | H  | I  | J   |
|-----|----|----|----|----|----|----|----|----|----|-----|
| 1—  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10  |
| 2—  | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20  |
| 3—  | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30  |
| 4—  | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40  |
| 5—  | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50  |
| 6—  | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60  |
| 7—  | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70  |
| 8—  | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80  |
| 9—  | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90  |
| 10— | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

For diversity in grouping Table II is given. Each group of 10's is arranged in vertical instead of horizontal lines. It is used in the same way.

Following the counting by 1's, 10's and 5's, count by 2's. Beginning with zero touch, while counting, the even numbers; beginning with 1 touch, while counting, the odd numbers. Subsequently count from memory. Count by 8's and by 4's through the first three or four groups. Count by adding to lines A-J numbers 1 to 9, as, add 4 to each number in line E: 5 plus 4 equal 9, 15 plus 4 equal 19, 25 plus 4 equal 29, to 95 plus 4 equal 99; subtract, similarly, as in Table I, column C, 3 minus 3 equals zero, 13 minus 3 equals 10, to 93 minus 3 equals 90. Following actual subtraction with objects this scale may be used to advantage with pupils who are unable to make the abstraction readily.

For example, in the problem 9 minus 5, begin at 9 in row (1); count back 1, 2, 3, 4, 5; the figure 4 indicates the number that remains; also, the places 1, 2, 3, 4, show it.

**Table II**  
NUMBER SCALE.

|    |    |    |    |    |    |    |    |    |    |     |
|----|----|----|----|----|----|----|----|----|----|-----|
| A— | 1  | 11 | 21 | 31 | 41 | 51 | 61 | 71 | 81 | 91  |
| B— | 2  | 12 | 22 | 32 | 42 | 52 | 62 | 72 | 82 | 92  |
| C— | 3  | 13 | 23 | 33 | 43 | 53 | 63 | 73 | 83 | 93  |
| D— | 4  | 14 | 24 | 34 | 44 | 54 | 64 | 74 | 84 | 94  |
| E— | 5  | 15 | 25 | 35 | 45 | 55 | 65 | 75 | 85 | 95  |
| F— | 6  | 16 | 26 | 36 | 46 | 56 | 66 | 76 | 86 | 96  |
| G— | 7  | 17 | 27 | 37 | 47 | 57 | 67 | 77 | 87 | 97  |
| H— | 8  | 18 | 28 | 38 | 48 | 58 | 68 | 78 | 88 | 98  |
| I— | 9  | 19 | 29 | 39 | 49 | 59 | 69 | 79 | 89 | 99  |
| J— | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

The intention of Table III is to lessen the difficulties of learning the addition combinations by building them up by counting and by showing them all upon one page. It often seems that pupils become lost in the maze of addition combinations and experience the uncertainty and distress of one who has lost his way. The pupil does not know what new combinations may leap out at him from the region of unknown things. But if he sees the primary sums, all of them, and learns that there are only forty-five, the task of learning them becomes much more definite and possible. After the combinations have been learned by counting, as in columns A to I, Table III, is useful in speed drills. A class goes to the board with instructions to write column 3. The pupils begin at a signal. The one who finishes first says "1," and makes the figure "1" over his work. Each, as he finishes, announces and records his place. The teacher checks on accuracy. At the end of the recitation it is of interest to observe the different scores. The teacher should try to account, to herself at least, and by observation while the work is in progress, for the variation in speed of a given pupil, for example, if the score is 1-4-2-1, why did the pupil drop to fourth place in the second exercise. In using Table III at the desks the pupils build the primary sums with their inch-square number cards, varying the order each day.

Subtraction is developed by counting, using Table III, as minus 1 equals zero, 2 minus 1 equals 1, continuing through columns A to I.



### Table III

THE 45 PRIMARY SUMS.

|    | (1)    | (2)    | (3)    | (4)    | (5)    | (6)    | (7)    | (8)    | (9)    |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A— | 1<br>1 | 2<br>1 | 3<br>1 | 4<br>1 | 5<br>1 | 6<br>1 | 7<br>1 | 8<br>1 | 9<br>1 |
| B— | 2<br>2 | 3<br>2 | 4<br>2 | 5<br>2 | 6<br>2 | 7<br>2 | 8<br>2 | 9<br>2 |        |
| C— | 3<br>3 | 4<br>3 | 5<br>3 | 6<br>3 | 7<br>3 | 8<br>3 | 9<br>3 |        |        |
| D— | 4<br>4 | 5<br>4 | 6<br>4 | 7<br>4 | 8<br>4 | 9<br>4 |        |        |        |
| E— | 5<br>5 | 6<br>5 | 7<br>5 | 8<br>5 | 9<br>5 |        |        |        |        |
| F— | 6<br>6 | 7<br>6 | 8<br>6 | 9<br>6 |        |        |        |        |        |
| G— | 7<br>7 | 8<br>7 | 9<br>7 |        |        |        |        |        |        |
| H— | 8<br>8 | 9<br>8 |        |        |        |        |        |        |        |
| I— | 9<br>9 |        |        |        |        |        |        |        |        |

Table IV presents the differences in varying order. The pupils are encouraged to arrange the "problems" in a different order each day when placing them on their desks with inch-square number cards. It is very important that the addition and subtraction processes be closely associated. When 4 and 3 are combined to make 7, at once separate each addend from the sum; 7 minus 3 equals 4, 7 minus 4 equals 3.

### Table IV

THE 45 PRIMARY DIFFERENCES.

|    | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A— | 1   | 2   | 3   | 1   | 2   | 4   | 1   | 3   | 1   |
| B— |     | 1   | 2   | 4   | 5   | 2   | 5   | 2   | 7   |
| C— |     |     | 1   | 3   | 3   | 5   | 3   | 1   | 9   |
| D— |     |     |     | 2   | 4   | 3   | 4   | 6   | 4   |
| E— |     |     |     |     | 1   | 6   | 2   | 8   | 5   |
| F— |     |     |     |     |     | 1   | 7   | 4   | 6   |
| G— |     |     |     |     |     |     | 6   | 7   | 3   |
| H— |     |     |     |     |     |     |     | 5   | 8   |
| I— |     |     |     |     |     |     |     |     | 2   |

Following the counting for becoming familiar with the number spaces 1-100 should come counting by 2's, 3's, 4's, etc., within the first two groups of ten, as an aid in learning the combinations. For example, the pupil counts by 4: beginning with zero:

|    |              |                               |  |
|----|--------------|-------------------------------|--|
|    | 0, 4, 8, 12  | In reverse order: 12, 8, 4, 0 |  |
| 1: | 1, 5, 9, 13  | 13, 9, 5, 1                   |  |
| 2: | 2, 6, 10, 14 | 14, 10, 6, 2                  |  |
| 3: | 3, 7, 11, 15 | 15, 11, 7, 3                  |  |

Table V gives further drill in addition and subtraction. The pupils are not to read the problems, as 4 plus 3 equal 7; but simply name the sums and differences. The purpose of this work is to make pupils able to recognize the primary combinations instantly, and to speak or to write them instantly. The use of perception cards (3x5½ inches on which each figure is at least an inch and a half) is valuable.

## Table V

### ADDITION

| Read sign + plus. |    |   | Read 0, zero. |   |   |    |   |    |   |   |   |
|-------------------|----|---|---------------|---|---|----|---|----|---|---|---|
| 4                 | 1  | 5 | 2             | 3 | 4 | 7  | 0 | 2  | 0 | 5 | 7 |
| +3                | 2  | 4 | 7             | 2 | 0 | 1  | 5 | 4  | 8 | 5 | 3 |
| <hr/>             |    |   |               |   |   |    |   |    |   |   |   |
| 4                 | 9  | 2 | 6             | 4 | 0 | 3  | 6 | 1  | 6 | 3 | 9 |
| +2                | 1  | 0 | 1             | 5 | 0 | 4  | 3 | 5  | 2 | 0 | 0 |
| <hr/>             |    |   |               |   |   |    |   |    |   |   |   |
| 3                 | 6  | 5 | 3             | 9 | 4 | 2  | 4 | 8  | 7 | 6 | 9 |
| +3                | 9  | 2 | 7             | 7 | 1 | 2  | 7 | 5  | 4 | 0 | 9 |
| <hr/>             |    |   |               |   |   |    |   |    |   |   |   |
| 3                 | 0  | 6 | 7             | 8 | 9 | 0  | 7 | 10 | 8 | 6 | 8 |
| +9                | 10 | 4 | 5             | 6 | 2 | 11 | 8 | 4  | 9 | 5 | 7 |
| <hr/>             |    |   |               |   |   |    |   |    |   |   |   |
| 9                 | 5  | 8 | 9             | 7 | 9 | 6  | 3 | 0  | 7 | 4 | 5 |
| +8                | 6  | 7 | 3             | 7 | 6 | 7  | 5 | 7  | 6 | 7 | 8 |

### SUBSTRACTION

| Read sign - minus. |    |   | Read 0, zero. |    |    |    |    |    |    |    |    |
|--------------------|----|---|---------------|----|----|----|----|----|----|----|----|
| 6                  | 7  | 8 | 4             | 5  | 7  | 9  | 11 | 2  | 12 | 8  | 6  |
| -2                 | 5  | 1 | 2             | 0  | 3  | 2  | 5  | 0  | 5  | 3  | 3  |
| <hr/>              |    |   |               |    |    |    |    |    |    |    |    |
| 11                 | 8  | 3 | 13            | 14 | 9  | 7  | 12 | 4  | 18 | 10 | 3  |
| -2                 | 5  | 0 | 5             | 7  | 4  | 3  | 6  | 1  | 9  | 7  | 2  |
| <hr/>              |    |   |               |    |    |    |    |    |    |    |    |
| 15                 | 9  | 7 | 13            | 10 | 8  | 12 | 9  | 1  | 16 | 7  | 4  |
| -7                 | 3  | 1 | 7             | 5  | 4  | 5  | 6  | 0  | 8  | 2  | 0  |
| <hr/>              |    |   |               |    |    |    |    |    |    |    |    |
| 12                 | 9  | 7 | 17            | 15 | 7  | 11 | 13 | 15 | 14 | 12 | 9  |
| -7                 | 5  | 0 | 9             | 8  | 6  | 6  | 8  | 6  | 6  | 2  | 0  |
| <hr/>              |    |   |               |    |    |    |    |    |    |    |    |
| 10                 | 11 | 9 | 5             | 17 | 15 | 10 | 14 | 9  | 11 | 8  | 14 |
| -2                 | 4  | 1 | 1             | 8  | 9  | 3  | 4  | 7  | 7  | 0  | 9  |

## PERCEPTION CARD

The teacher exposes the card an instant; the pupil gives the sum or difference as directed. If he misses, he takes the card and reports the combination correctly when he hands it back at the close of the recitation. By shifting the perception cards the teacher makes sure that the pupils are able to recognize the combinations in any order.



## Table VI

### DOUBLE OF NUMBERS

|    |   | Read signs: + plus, - minus. |   |   |   | Learn doubles of numbers. |   |   |    |    |    |    |
|----|---|------------------------------|---|---|---|---------------------------|---|---|----|----|----|----|
|    | 1 | 2                            | 3 | 4 | 5 | 6                         | 7 | 8 | 9  | 10 | 11 | 12 |
| +1 | 2 | 3                            | 4 | 5 | 6 | 7                         | 8 | 9 | 10 | 11 | 12 | 12 |
|    | — | —                            | — | — | — | —                         | — | — | —  | —  | —  | —  |

Use doubles of numbers as a guide in addition and subtraction.  
Read from top: as, 2 plus 3 equals 5.

|     |    |    |    |    |    |    |    |    |   |    |   |   |
|-----|----|----|----|----|----|----|----|----|---|----|---|---|
| 2   | 2  | 2  | 3  | 3  | 3  | 4  | 4  | 4  | 5 | 5  | 5 |   |
| +2  | 3  | 1  | 3  | 4  | 2  | 4  | 5  | 3  | 5 | 6  | 4 |   |
|     | —  | —  | —  | —  | —  | —  | —  | —  | — | —  | — | — |
| 6   | 6  | 6  | 7  | 7  | 7  | 8  | 8  | 8  | 9 | 9  | 9 |   |
| +6  | 7  | 5  | 7  | 8  | 6  | 8  | 9  | 7  | 9 | 10 | 8 |   |
|     | —  | —  | —  | —  | —  | —  | —  | —  | — | —  | — | — |
| 10  | 10 | 10 | 11 | 11 | 11 | 12 | 12 | 12 |   |    |   |   |
| +10 | 11 | 9  | 11 | 12 | 10 | 12 | 13 | 11 |   |    |   |   |
|     | —  | —  | —  | —  | —  | —  | —  | —  |   |    |   |   |

Read from top: as, 6 minus 4 equal 2.

|     |    |    |    |    |    |    |    |    |    |    |    |   |
|-----|----|----|----|----|----|----|----|----|----|----|----|---|
| 2   | 3  | 4  | 4  | 4  | 5  | 6  | 6  | 6  | 7  | 8  | 8  | 8 |
| -1  | 3  | 2  | 3  | 1  | 5  | 3  | 4  | 2  | 7  | 4  | 5  | 3 |
|     | —  | —  | —  | —  | —  | —  | —  | —  | —  | —  | —  | — |
| 9   | 10 | 10 | 10 | 11 | 12 | 12 | 12 | 13 | 14 | 14 | 14 |   |
| -9  | 5  | 6  | 4  | 11 | 6  | 7  | 5  | 13 | 7  | 8  | 6  |   |
|     | —  | —  | —  | —  | —  | —  | —  | —  | —  | —  | —  | — |
| 15  | 16 | 16 | 16 | 17 | 18 | 18 | 18 | 19 |    |    |    |   |
| -15 | 8  | 9  | 7  | 17 | 9  | 10 | 8  | 19 |    |    |    |   |
|     | —  | —  | —  | —  | —  | —  | —  | —  |    |    |    |   |
| 20  | 20 | 20 | 21 | 22 | 22 | 22 | 23 | 24 | 24 | 24 |    |   |
| -10 | 11 | 9  | 21 | 11 | 12 | 10 | 23 | 12 | 13 | 11 |    |   |
|     | —  | —  | —  | —  | —  | —  | —  | —  | —  | —  |    |   |

Table III, column (1) presents the doubles of numbers below ten. They are easily learned in the forty-five primary sums of which they constitute one-fifth. The knowledge of these furnishes a guide in addition and subtraction. Table VI suggests the use of this knowledge in learning and recalling primary sums and differences. For instance, 8 plus 8 equal 16; 7 is 1 less than 8; hence 8 plus 7 equal 1 less than 16, or 15; 8 plus 8 equal 16; 9 is 1 more than 8; hence 8 plus 9 equal 1 more than 16, or 17. When the pupil has the idea of using the double of a number as a guide in addition or subtraction he is able to do it instantly without any formal explanation.

Counting by 10's is an easy form of adding or subtracting. Pupils often consider adding 9 difficult. This difficulty may be removed by using 10 as a guide in adding 9 as suggested in Table VII.

## Table VII

### ADDITION

Ten. It is easy to add ten to any number. Read lower number first:  
as 1 plus 10 equal 11.

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| +1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 15 |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Nine. 9 is 1 less than 10. The sum of 9 and any number is 1 less than the sum of 10 and that number. Use 10 as a guide in adding 9 to any number.

|     |   |    |   |    |   |    |   |    |   |    |   |    |   |    |   |
|-----|---|----|---|----|---|----|---|----|---|----|---|----|---|----|---|
| 10  | 9 | 10 | 9 | 10 | 9 | 10 | 9 | 10 | 9 | 10 | 9 | 10 | 9 | 10 | 9 |
| + 2 | 2 | 3  | 3 | 4  | 4 | 5  | 5 | 6  | 6 | 7  | 7 | 8  | 8 | 9  | 9 |

## Table VIII

### TABLE OF TWO'S

|   |   |   |   |    |    |    |    |    |    |    |    |
|---|---|---|---|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 2 | 2 | 2 | 2 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
| 2 | 2 | 2 | 2 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
|   | 4 | 2 | 2 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
|   |   | 6 | 2 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
|   |   |   | 8 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
|   |   |   |   | 10 | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
|   |   |   |   |    | 12 | 2  | 2  | 2  | 2  | 2  | 2  |
|   |   |   |   |    |    | 14 | 2  | 2  | 2  | 2  | 2  |
|   |   |   |   |    |    |    | 16 | 2  | 2  | 2  | 2  |
|   |   |   |   |    |    |    |    | 18 | 2  | 2  | 2  |
|   |   |   |   |    |    |    |    |    | 20 | 2  | 2  |
|   |   |   |   |    |    |    |    |    |    | 22 | 2  |
|   |   |   |   |    |    |    |    |    |    |    | 24 |

In the counting by 2's from the number scales, Tables I and II, the equivalent of the multiplication table of two's has been developed. These facts may be thrown into the form of Table VIII. Use this for both multiplication and division; 9 times 2 equal 18. How many 2's in 18? There are nine 2's in 18.

## Third Grade, B Class

### Review.

Combinations and separations should be thoroughly reviewed. Emphasis should be placed upon speed in this grade.

### New Work.

Reading and writing numbers with three orders.

Addition through series work as .....28 31 41 51 61 71  
    4 4 4 4 4 4  
    — — — — — —

Place right hand figures first in addition of this kind.

Subtraction the same.

Addition by 2's, 3's, 4's, and 5's. Example ..... 1 2 1 1  
    3 4 4 5  
    5 6 7 9  
    7 8 10 13  
    9 10 13 17  
    — — — —

Teach multiplication and division tables to the 6's.

Have only one digit for the multiplier and divisor.

Teach division in the following ways:

$3/3=1$                                  $3 \div 3=1$                                  $1/3$  of  $3=1$

Children should know that  $75 \div 3$  means the same as  $3 \overline{)75}$ .

Give only even division problems with two and three numbers in the quotient.

### Games.

1. Number race. Divide blackboard into spaces. In each space, place simple number combinations or examples in separations or multiplication tables. Select two children to run a race. Start one child at A and the other at B. The one running the greatest number of miles correctly wins the race.

2. Fireman game. Draw windows at the top of the blackboard. Have ladders reaching up to them. Place combinations or separations on the rounds of the ladder. The child is to see if he can climb the ladder without falling, or he may descend the ladder without accident.

3. Post Office. Prepare cards about six inches long and four inches wide. On the side of these write a number story with answer as  $6+4=10$ . On the blackboard all around the room write the numbers from two to ten, and then choose a child to live in each house, represented by a number and by Mrs. 2, Mr. 3, or Mr. 4, as the case may be. Then elect yourself postmaster, and choose, as carriers, children who especially need drill in the number work. Each carrier is given a letter (one of the cards) which he must take to the right house. Have a rigid system in the post office by which the carriers go out from one side of your desk and return at the other side. As soon as they return they announce the number story they had and the house where they took it. This helps them to visualize the number facts. If they forget, they are sternly sent back to the house to discover what the number fact was. This helps the memory. Sometimes the carrier makes a mistake and delivers a letter to the wrong house. Then the child receiving the letter hastens to the postmaster to report the mistake. The postmaster apologizes and sends the carrier back to correct his error.

4. The Race. Ten or fifteen combinations are written on a row on the board. The two children chosen pass to opposite ends. At the signal they begin writing the answers. When they meet, a line is drawn and each counts the problems he has answered. Compare the numbers of answers. This gives a good opportunity for more than and less than work.

5. Mush Pot Game. The children form a circle, teacher standing in the center with drill cards. The cards are exposed to each child in turn. If the answer is incorrectly given, the child goes into the mushpot.

When the round is made the children in the center are given an opportunity to get back in the circle by giving the correct answer to the card they hold. They still retain the card, however, until the game is over, then it is easy to check up to each child his individual problem.

This game may be played in a different manner. The first child who misses goes into the mush pot without his card, which is passed to the next child, as soon as he tells or catches another card, he goes into the circle, and the one caught takes his place in the center.

Half of the time should be given to oral work. All review in abstract work should be given without thinking or counting. The following terms should be understood: add, addition, subtract, subtraction, multiply, divide, sum, remainder, difference. The child should be taught the use of the following signs:  $+$   $-$   $\times$   $\div$

## Third Grade, A Class

Review all the work previously outlined.

### New Work.

Read and write numbers to 4 orders.

Complete multiplication tables through the 9's. Division same.

In multiplication, let the multiplier be one digit.

Let all short division be even.

Teach the process of borrowing, but say "take."

Give one step problems in addition, subtraction and multiplication.

As reasoning is the basis of concrete work much oral drill should be given, the teacher and class working together, that correct habits of attacking a problem may be formed. The steps necessary to solve problems orally with objects will be the basis for solving written problems. Work many of the written or book examples orally, using a few principles that will apply to most examples.

Read the problems carefully.

What am I asked to find?

What is known?

How will I find it?

In multiplication, make a statement similar to this:

A boy earns \$6 in one week. In 2 weeks, he earns 2 times \$6 or \$12 (not  $2 \times 6$ ).

Give store problems involving the use of money.

The same achievements should not be expected from all classes nor from all individuals.

Standards should vary with the amount of drill given. Knowledge of the process is the first standard, accuracy follows next and then speed.

Allowance should be made for the slow pupil. In records based on time, each pupil should be encouraged to raise his own previous record, and to advance until he has reached his limit.

Place the standard above the average of the class. Keep a record so that each may know whether he is advancing toward this standard or has exceeded it.

About one-half of the time should be given to oral drills. Emphasize the oral drills in multiplication and division. Keep up the drill work on the combinations and separations.

Use games listed for Third B. Class.

## General Suggestions

GRADES 4-5-6

Abstract problems deal with number purely and are to establish principles. Concrete problems are the applied problems and are to give a practical use of the knowledge gained. Teach the unknown through the known.

Introduce new work in its simplest form.



Use illustrations and objects whenever they are needed. Often ask pupils to illustrate their work by drawing.

Note—In fractions. Boy has  $\frac{1}{2}$  of a melon and sells or gives away one-half of it. What has he left? Draw instead of working.

Make several applications of the newly learned facts. Use plenty of oral work based on these new facts. Seek for accuracy first, speed second. Check all work for accuracy. Place answers in short division above and not below the dividend.

1. Read and understand what the problem gives and what is required.
2. Plan how to solve it.
3. Solve by shortest way.
4. Test work.

#### Oral or Drill Work.

1. Oral work is one of the chief factors of arithmetic teaching. It is well to use the first five or ten minutes of each recitation in a quick, snappy, oral direct drill. It should leave no time for thinking.

2. From the 4th grade up, the Studebaker or Curtis Practice Tests should be used.

- a. They are well arranged and therefore save the teacher much time in arranging drill materials.
- b. Gives the child a chance to master his particular difficulty.
- c. Standard tests make it possible to measure the efficiency of any given method and they also give the child a chance to measure himself. (See list of tests, page —)
- d. In the Curtis Standard Tests, Series B, in four fundamentals, the 6th grade pupils should attempt 6.7 addition with 58% accuracy; 7.9 subtraction with 73% accuracy; 6.8 multiplication with 70% accuracy; and 5.1 division with 68% accuracy.

3. If not able to obtain the tests many oral drills can be arranged thus:  $6 \times 9 - 1 \div 8 \times 7 - 1 \times 12 =$

4. To test work on combinations.

|   |    |                     |   |    |   |   |
|---|----|---------------------|---|----|---|---|
| 1 | 10 | (Add from top down) | 9 | 12 | 2 | 8 |
| 3 | 3  |                     | 3 | 3  | 3 | 3 |
| 3 | 3  |                     | 3 | 3  | 3 | 3 |
| 3 | 3  |                     | 3 | 3  | 3 | 3 |

10

Begin with 1 and add 3's till you reach 100. See that child adds by combination and not by counting.

5. Just the same for subtraction. Combinations or separations.

|    |   |   |    |   |   |    |   |   |   |
|----|---|---|----|---|---|----|---|---|---|
| 10 | 7 | 4 | 11 | 8 | 5 | 12 | 9 | 6 | 3 |
| 3  | 3 | 3 | 3  | 3 | 3 | 3  | 3 | 3 | 3 |

Begin with 100 and subtract 3 until you reach 1.

6. Take the concrete work for the day and think through the process and estimate answers.

7. Give problems similar to those assigned to the class, only using small numbers.

8. Use statements instead of long drawn out analysis.

9. Checking for accuracy.

a. Give drill in fundamentals.

b. Teaches pupils to depend on self, rather than on answer in the book.

10. **Motive.** Motive must be provided for the work. The stronger the incentive the greater will be the attention given to the work. Timing is an incentive for speed.

11. **Games.** One of the best ways of creating a liking for drill. Creates a dissatisfied state of affairs in the mind of the fellow not prepared. Incentive to learn so that he can play the game.



## Fourth Grade, B Class

Read general Suggestions for 4, 5, 6 grades.

**Review—**

All work given in preceding grades.

- a. Work for accuracy and speed in this review.
- b. Let the child know just how he is gaining in accuracy and speed. This is incentive for improvement.

Spend some time on addition of this type:

|      |     |      |    |   |
|------|-----|------|----|---|
| 3864 | 661 | 6864 |    | Note: Ten Method  |
| 3678 | 846 | 1864 |    | 6 + 6 = 12  |
| 5486 | 864 | 1681 | 10 | Place line for the ten.<br>2 + 8 = 10                     |
| —    | 264 | —    |    | Place line for the ten<br>1 + 4 + 4 = 9                   |
|      | —   | 2648 | 12 | Place 9 in answer.<br>Two tens to carry to second column. |
|      |     | 6486 |    |   |
|      |     | 8646 |    |   |
|      |     | —    |    |   |
|      |     | 9    |    |   |

Use the ten method, being careful to see that the child really understands it.

Subtract some problems of this type:

|     |      |         |
|-----|------|---------|
| 864 | 6486 | 1646362 |
| 164 | 1648 | 2222222 |
| —   | —    | —       |

Do NOT require them to read answer of over six digits.

Review all work given in preceding grades. In reviewing multiplication tables work for accuracy and speed. Let the child know just how much he is gaining in speed and accuracy.

1. Teach multiplication by 2 digit multiplier, including multiplication where zero is used:

$$\begin{array}{r} 168 \\ \times 20 \\ \hline \end{array}$$

21360

11. Do NOT use more than 3 members in multiplicand.

III. The child should master short division in 4 B. Should be able to place the zero in the quotient.

IV. Stress the idea that digits in answer must be placed directly over digits in dividend.

xxxx

2)6664

V. Be sure to make clear the use of zero in subtraction.

|      |      |      |      |
|------|------|------|------|
| 800  | 180  | 806  | 806  |
| -166 | -160 | -166 | -160 |
| —    | —    | —    | —    |

Teach the dollar sign and the decimal point in dollars and cents.

Give examples in dollars and cents in addition, subtraction, multiplication and short division.

|         |         |        |           |
|---------|---------|--------|-----------|
| \$86.40 | \$62.24 | \$8.24 | xx.xx     |
| 12.32   | -3.14   | x9     | 2)\$86.40 |

Make these examples vital and practical to child life. Encourage children to bring in their own problems from home and store.

Read and write numbers of 5 and 6 orders.

This can easily be done by playing a game.

Teach children to begin at right and group by 3's thus:

Thousand      Units

000          000

Then teach names of the groups or families.

OMIT the use of fractions of UNLIKE denominators.

OMIT the use of fractions with numerators other than ONE.

In 4 B., pupils should be taught to divide squares or circles into one-half, one-fourth, one-third and one-sixteenth.

# Fourth Grade, A Class

## Oral Drills.

U. S. money. Drill in fundamentals thru bills, playing store or cafeteria. Make change. Pupils make money at home and bring to class. Socialize the recitation. Be sure they know the 1, 2, 5, 10 dollar bills.

Note: Place price list on board. using local prices. Check multiplication with one digit multipliers, by short division. Good strong review of tables. Use different forms.

|     |                   |                 |                   |            |
|-----|-------------------|-----------------|-------------------|------------|
| 679 | $6 \times 1 = 6$  | $6 \div 6 = 1$  | $1/6$ of $6 = 1$  | $6/6 = 1$  |
| x 6 | $6 \times 2 = 12$ | $12 \div 2 = 6$ | $1/6$ of $12 = 2$ | $12/2 = 6$ |

Be sure pupils have had tables, thus:

|    |    |
|----|----|
| 6  | 6  |
| 6  | 6  |
| —  | 6  |
| 12 | —  |
|    | 18 |

Notation and numeration thru two periods. Group in families.

|          |       |
|----------|-------|
| Thousand | Units |
| 000      | 000   |

Roman numerals as needed for chapters of books.

If grouping is properly taught the comma is not necessary.

## New Work, 4 A.

1. Multiplication by three digit multipliers. Use of naught in multiplier.

|  |   |  |
|--|---|--|
| $\begin{array}{r} 1264 \\ 112 \\ \hline 2528 \\ 1264 \\ \hline 1264 \end{array}$ | $\begin{array}{r} 1264 \\ 102 \\ \hline 2418 \\ 1264 \\ \hline \end{array}$ | $\begin{array}{r} 864 \\ 60 \\ \hline 51840 \end{array}$ |
|--|---|--|

Study the above forms.

Note: Remember that first digit in product is placed under digit by which you multiply.

Do not place naught out at side, thus:

$$\begin{array}{r} 864 \\ 60 \\ \hline \end{array}$$

Do not multiply by naught, thus:

$$\begin{array}{r} 6213 \\ 202 \\ \hline 12426 \\ 00000 \\ \hline 12426 \end{array}$$

2. Long Division. Work intensively. Take short division problems on long division plan and prove, thus:

|   |   |
|---|---|
| $\begin{array}{r} 4316 \\ \hline \end{array}$   | Steps   |
| $\begin{array}{r} 2)8632 \\ 8 \\ \hline 6 \\ 6 \\ \hline 3 \\ 2 \\ \hline 12 \\ 12 \\ \hline \end{array}$ | Divide<br>Multiply<br><br>Inspect<br>Subtract<br><br>Bring Down |

Teacher, assisted by pupils, should work one on board every day

for at least a week. Answer digits must be placed directly above the dividend digits thus:

$$\begin{array}{r} \text{xxxx} \\ \hline 2)6428 \end{array}$$

First problems should come out even. Divisors such as 11-10-20-30-40. The smaller the divisor, the larger the quotient should be taught in 4 A.

Steps on board at all times until pupils can travel independently. Stress the inspection step for here is where many fall down.

In bringing down, insist on numbers being in line. Do individual work until trouble is remedied. Do not allow a child to continue working incorrectly.

3. Fractions.

4. Reasoning problems involving multiplication by 2 or 3 place multipliers and two place divisors.

One definite statement instead of long drawn out analysis.

Reasoning problems: 1 hat cost \$6, 14 hats cost  $14 \times \$6 = \$84$ . Six chairs cost \$120, one chair cost  $1/6$  of \$120 or  $\$120 \div 6$ .

Most important thing is the correct answer.

5. Applied measurements especially the linear using inches, feet and yards. Making of hair ribbons and fishing lines very interesting. Allow pupils to measure each other, their teacher, and visitors.

Liquid—Selling milk.

Dry—Buying and selling apples, making change.

Parts of time tables.

6. Many problems should be supplied.

7. Test often for mastery of fundamentals.

Terms to learn:

|              |                |           |          |
|--------------|----------------|-----------|----------|
| multiplier   | measures       | dividend  | fraction |
| multiplicand | total of bills | square    | halves   |
| product      | circle         | rectangle | thirds   |
| statement    | quotient       | triangle  | fourths  |

Reference for measurement work, "Thorndike Arithmetics."

## Fifth Grade, B Class

1. Three digit long division.

Notation and numeration thru three groups.

$$\begin{array}{ccc} 000 & 000 & 000 \\ \hline & & \end{array}$$

Emphasize place value of numbers as by groups and by figures within the group. Family of units, thousand, millions, each has units, tens, hundreds.

II. Teach divisibility of numbers by 2—5—3.

III. Fractions—Reading and writing fractions.

Reducing to higher and lower terms, by graphical illustrations. Use construction paper and cut squares into halves, fourths to show  $1/2 = 2/4$ .

The pie or circle is also very good. Be sure the pupil sees this before the abstract work in fractions is done. Much oral drill in  $1/2 = 2/4$ ,  $4/8 = 1/2$ ,  $3/6 = 1/2$ .

The larger the denominator the smaller the parts,  $1/2$  compare  $1/4$ . The smaller the denominator the larger the parts,  $1/2$  compare  $1/8$ .

1. Much drill in changing improper fractions to whole or mixed numbers.

Show pupil that this is one form of division.

$88-2 = 44$ ,  $81-2 = 40$  1-2. Prove.

2. Mixed numbers to improper fractions.  $6\frac{1}{2} = 13/2$ ,  $5\frac{1}{2} = 11/2$ . Prove in fractions just the same as in integers.

Addition and subtraction of fractions. Use graphical illustrations, construction paper show  $1/2 = 2/4$ . Then add  $1/2$  and  $2/4$ .

This should have plenty of oral drill. Work out a set of combi-

nations for addition of fractions and drill on them. Also separation of fractions for drill.

Find all common denominators by inspection. Make work objective by graphs. Use circle, square, rectangle and lines.

First, add and subtract fractions of like denominations. Much oral work.  $\frac{1}{2} \div \frac{1}{2} + 1/2 + 1/2$ .

Second. Mixed numbers whose fractions have like denominators, use column form.

$$\begin{array}{r} 4\frac{1}{2} \quad 6\frac{1}{2} \\ 6\frac{1}{2} \quad \frac{1}{2} \\ \hline \end{array}$$

Third. Fractions unlike denominators.

$$\begin{array}{r} \frac{1}{2} + \frac{1}{4} \quad \frac{1}{2} = \frac{2}{4} \\ \frac{1}{4} = \frac{1}{4} \\ \hline \frac{3}{4} \end{array}$$

Keep fractions simple and denominators small. Use only practical problems.

Fourth. Teach fractions where borrowing is necessary.

Subtract integers from mixed numbers  $6\frac{1}{2}$

$$\begin{array}{r} \text{Mixed numbers from integers} \quad 7 \quad 62/2 \\ \quad \quad \quad \quad \quad 2\frac{1}{2} \quad \quad 2\frac{1}{2} \\ \hline \end{array}$$

Prove all fraction problems. One long division problem a day till accuracy is at least 90%. Test often for accuracy on addition, subtraction, multiplication of integers.

Assignment, light, hence plenty of time for socialized problems. Terms and symbols that should be known.

|            |                   |            |                    |
|------------|-------------------|------------|--------------------|
| = equal    | addend            | remainder  | common denominator |
| + plus     | sum               | difference | proper fraction    |
| - minus    | minuend           | dividend   | similar fraction   |
| × multiply | multiplier        | divisor    | improper fraction  |
| ÷ divide   | product           | quotient   | mixed number       |
| fractions  | subtrahend        | reduction  | integer            |
| numerator  | improper fraction |            | denominator        |

To be avoided. The idea that pupils have mastered the fundamentals. G. O. D., Least Common Multiple as a topic and all impractical fractions.

## Fifth Grade, A Class

### Review.

Reduction—addition and subtraction of fractions. Divisibility of numbers by 2, 5, 3. Find common denominator by inspection. Speed in reduction to lower terms, improper fractions to mixed numbers and mixed numbers to improper fractions.

$$60/80 = \frac{3}{4} \qquad 60/2 = 30 \qquad 7 \frac{1}{2} = 15/2$$

Have these mastered before introducing multiplication and division of fractions.

### New Work.

- I. Multiplication and division of fractions.
- II. Square measure, finding areas, perimeter.

Multiplication of fractions.

1. Fraction by integer,  $\frac{1}{2} \times 4 = 4/2 = 2$ .
2. Integer by fraction,  $6 \times \frac{1}{2} = 6/2 = 3$ .
3. Fraction by fraction  $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ .
4. Mixed number by fraction  $2\frac{1}{2} \times \frac{1}{3} = 5/2 \times \frac{1}{3} = \frac{5}{6}$ .
5. Fraction by mixed number  $\frac{1}{3} \times 2\frac{1}{2} = \frac{1}{3} \times 5/2 = \frac{5}{6}$ .
6. Integer by mixed number  $4 \times 2\frac{1}{2} = 4 \times 5/2 = 20/2 = 10$ .
7. Mixed number by integer  $2\frac{1}{2} \times 4 = 5/2 \times 4 = 20/2$  or 10.
8. Mixed number by mixed number  $2\frac{1}{2} \times 2\frac{1}{2} = 5/2 \times 5/2 = 25/2$  or  $6\frac{1}{2}$ .

Teach cancellation when needed.

Before beginning division of fractions review long division. Be sure to have the child see that the smaller the divisor the larger the quotient.

203

406

8)1624

4)1624

Then:

$$6 \div 6 = 1$$

$$6 \div 6 = 1$$

$$6 \div 3 = 2$$

$$6 \div 3 = 2$$

$$6 \div 2 = 3$$

$$6 \div 2 = 3$$

$$6 \div 1 = 6$$

$$6 \div 1 = 6$$

$$6 \div \frac{1}{2} = 12$$

$$6 \div \frac{1}{3} = 18$$

Do a number of these then orally:

$$4 \div \frac{1}{2} =$$

$$10 \div \frac{1}{2} =$$

$$6 \div \frac{1}{3} =$$

$$7 \div \frac{1}{3} =$$

Then fractions divided by integer— $4/8$  divided by 2. Graphs to be used. At all times fractions must be reduced to their lowest terms and not left as  $2/8$ .

Talk divisor so that pupil will know the importance of knowing the divisor,  $6 \div 6 = 1$   $6 \div 1 = 6$   $6 \div \frac{1}{2} = 12$   $\frac{1}{2} \div 6 = 1/12$ .

Note the difference in result in using same numbers but changing divisors. Fraction by a fraction  $\frac{1}{2} \div \frac{1}{2} = \frac{1}{2} \times 2/1 = \frac{1}{2}$  or 1.

Integer by a mixed number  $6 \div 2\frac{1}{2} = 6 \div 5/2$  or  $6 \times \frac{2}{5}$  or  $2\frac{2}{5}$ .

Mixed number by an integer  $2\frac{1}{2} \div 3 = 5/3 \times \frac{1}{3}$  or  $5/9$ .

Fraction by mixed number  $\frac{1}{2} \div 2\frac{1}{2} = \frac{1}{2} \times \frac{2}{5}$  or  $\frac{1}{5}$ .

Mixed number by mixed number  $3\frac{1}{2} \div 2\frac{1}{2} = 7/2 \times \frac{2}{5}$  or  $7/5$  or  $1\frac{2}{5}$ .

1. Form of analysis.

2. 1 hat cost \$6.

\$3  $\frac{1}{2}$  cost of a hat.

6 hats cost  $6 \times \$6 = \$36$ .

7 number of hats.

6 hats cost \$12.

What is cost of 7 hats?

1 hat cost  $1/6$  of \$12 or \$2.

$7 \times \$7/2 = \$49/2$  or  $\$24\frac{1}{2}$ .

Use statement rather than long drawn out analysis.

Making and footing bills an excellent plan for reviewing multiplication fraction.  $6\frac{1}{2}$  lbs. meat at  $47\frac{1}{2}c$  a lb.

Applied measurements, use graph.

Linear, square, weight, liquid, U. S. money.

Perimeters of squares, rectangles and triangles.

Technical terms, factor, divisor, common denominator, prime, perimeter, area, divisibility, composite, bills, debtor, creditor, receipt, footing of bills, area. Teach cancellation.

Omit: Formal analysis, Decimal fractions, Drawing to scale, Cubic measure, all complex fractions.

## Sixth Grade, B Class

Review:

1. The work of grade five stress fundamentals of integers, fractions and U. S. money, \$5.00, \$ .05, \$ .50. Measurements taught in 5 A.

Note: The review not only helps to fix the principles, taught but aids in unifying the arithmetic work,

2. Finding of area and volumes.

$62\frac{1}{2}$

4

a. Care in development of tables,

248

2

b. Making of cube—large and small

250

c. Tables learned thru application.

3. Finding perimeters.

4. Notation, numeration.

5. Bills—teach table of aliquot parts and use in buying and making accounts.

6. Factors.
7. Cancellations.
8. Bring out 1. Multiplying the numerator multiplies the fraction.  
2. Multiplying the denominator divides the fraction and the reverse of these.

New Work: Concrete problems involving the use of fundamentals in integers, fractions and U. S. money. These problems must be within the reach of pupils. The socialized problem is best. The concrete problems test the ability to make practical use of facts learned in the abstract.

Decimal Fractions.

Decimal fractions are nothing new, merely old material in a new dress.

$$1-10 = .1 \quad 1-100 = .01 \quad 1-1000 = .001$$

It takes ten of each to make the one higher. Then show this 666.666.

Read and write decimal fractions before your class, see that all know where to place the point.

Then:  $66 \div 10 = 6.6$

$$66 \div 100 = 66.01$$

$$66 \div 1000 = 66.001$$

Then  $9 \div 10 + 1 \div 10 = 10 \div 10 = 1$ .  $.9 + .1 = 1.0$

In addition show that ten of one makes one of the next higher.

Use term decimal fraction and NOT decimal.

Make clear explanation. Show relation to common fractions.

Reading. Writing decimal fractions thru three places: tenths, hundredths, thousandths.

Comparative value:  $.1$  &  $.01$ ,  $1 \div 10$  &  $1 \div 100$

Addition and subtraction (three places only.) All rules made after problems have been explained: rule should follow and not precede work.

Speed in changing decimal fractions to common and common fractions to decimal fractions.

Checking for accuracy.

New terms:

|          |                |                  |
|----------|----------------|------------------|
| Ratio    | volume         | footing          |
| cubic    | decimal point  | receipts         |
| area     | " means inches | equivalent       |
| equation | ' means foot   | decimal fraction |

Such abbreviations as are needed in measurements.

## Sixth Grade, A Class

Review:

1. Using concrete problems involving fundamentals in integers, common fractions and in adding and subtracting decimal fractions.

2. Buying, selling using aliquot parts.

3. Practical problems including accounts, living expenses and transportation.

4. Stress mental work in this class.

5. Practical measurements, squares, triangles, parallelograms, rectangles, and volumes.

6. Test knowledge of tables thru practical problems and not mere repeating of tables. Make it necessary for child to know the linear table.

a. Have child make their own rod measure, square foot, square yard.

7. Be sure they know how the square and cubic tables are developed.

a. Making of 2 in. cube and several 1 in. cubes will help much in solving the cubic problem.

New Work:

1. Multiplication and division of decimal fractions, percentage and



interest. Have pupils make all rules governing the pointing of decimal fractions by using common fractions.

$$.6 + .6 = 1.2.$$

a.  $2/10 \times 2/10 = 4/100 = .04$

$$\begin{array}{r} .2 \\ .2 \\ \hline .4 \end{array}$$

Make rule, tenths  $\times$  tenths makes hundredths.

Make rule, sum up decimal points for product.

$$6/10 \ \& \ 6/10 = 12/10 = 1 \ 2/10 \quad .6 \ \& \ .6 = 1.2.$$

$$2/10 \times 2 = 4/10 \quad .2 + .2 = .4 \text{ (make rule)}$$

$$2/10 \times 2/10 = 4/100 \quad .2 \times .2 = .04 \text{ (make rule)}$$

Say tenths  $\times$  tenths make hundredths and not one decimal place in multiplication and one multiplier makes two places in product.

b.  $2/10 \div 2/10 = 1$

$$\begin{array}{r} 1 \\ - \\ .2 \end{array}$$

This fraction work will not be necessary after it is once understood.

2. Decimal and common fractions as applied to areas, volumes, decimals, and fractions on relation to percentage.

3. Common fractions to be used in developing the mechanics of percentage and loss and gain.

Case 1.  $33\frac{1}{3}\%$  of 60  $\frac{1}{3}$  of \$60 is \$20.

Case 2. \$20 is what % of \$60?  $20/60$  are  $\frac{1}{3}$  or  $33\frac{1}{3}\%$ .

Case 3. 3 is 25% of what number? 3 is  $\frac{1}{4}$  of what number?

This gives more chance for mental work. More problems can be worked in less time. Fractional method is used in business.

4. Table of equivalent to be made by children, then used.

|  |  |                                |
|--|--|--------------------------------|
| $\frac{1}{2} = .50 = 50\%$                       | $\frac{3}{5} = .60.$                     | $\frac{7}{8} = .87\frac{1}{2}$ |
| $\frac{1}{3} = .33\frac{1}{3} = 33\frac{1}{3}\%$ | $\frac{4}{5} = .80$                      | $1/10 = .1$                    |
| $\frac{2}{3} = .66\frac{2}{3}\%$                 | $\frac{1}{6} = .16\frac{2}{3}$           | $1/12 = .08\frac{1}{3}$        |
| $\frac{1}{4} = 25\%$                             | $\frac{5}{6} = .83\frac{1}{3}$           | $1/20 = .05$                   |
| $\frac{3}{4} = .75$                              | $\frac{1}{3} = .12\frac{1}{2}$           | $1/25 = .04$                   |
| $\frac{1}{5} = .20 = 20\%$                       | $\frac{3}{8} = .37\frac{1}{2}$ or $.375$ | $1/50 = .02$                   |
| $\frac{2}{5} = .40$                              | $\frac{5}{8} = .62\frac{1}{2}$ or $.625$ |                                |

5. The decimal method should also be explained thus:

$$\frac{1}{4} \text{ of } 40 = 10$$

$$.25 \times 40 = 10.00 \text{ (say 25 hundredths times 40)}$$

Such as 9%, 7% must be worked by decimal form:

$$\begin{array}{r} 864 \\ .09 \\ \hline \end{array}$$

6. Interest is merely introduced. Stress should be placed on difference on time between dates and on relation of interest to decimal fraction work. "Teach the new through the old."

6% interest as .06 of the sum. 6 hundredths  $\times$  864.

New Terms:

Volume            Angle            Interest            Equivalent per cent

## Seventh Grade, B Class

In the first six grades the pupil has completed the arithmetic of ordinary computation; has learned how to use the common tables of measures and how to find a given percent of a number.

In the first half of the seventh grade a study is made of the most important application of arithmetic—those which relate to home, the store, the farm, the most common industries and the bank.

In taking up these applications of arithmetic a review is made of the operations with numbers; particular attention is paid to short

cuts in computation. The important subject of percentage which enters into every kind of business is reviewed and treated from the beginning.

I. The Arithmetic of The Home.

- (a) Cash accounts, household accounts, the need for knowing about percents.
  - (1) Finding percents.
    - (a) Percents and common fractions.
    - (b) Percents as decimal fractions.
    - (c) Decimal fractions as percents.
- (b) Home Problems.
  - (1) Reading the Gas Meter, Electric Meter.
  - (2) Problems of percentage.
  - (3) Expense Accounts.
- (c) Household Economics.
  - (1) Heating the House.
  - (2) The Family Budget.

II. Arithmetic of the Store.

- (a) Oral Subtraction.
  - (1) Making change.
- (b) Oral Multiplication.
  - (1) Short cuts in multiplication.
- (c) Use of Aliquot parts in Multiplication.
- (d) Cash Checks—discounts, list price, net price, cost discount, trade discount.
- (e) Bills—receipted bills, invoice.

III. Arithmetic of the Farm.

- (a) Cost of wastefulness.
- (b) Farm accounts.
- (c) Farm records.
- (d) Problems of the dairy.
- (e) Farm income.
- (f) Soils, crops, good roads.

IV. Arithmetic of the Bank.

- (a) Savings Banks.
- (b) Bank account essentials.
- (c) Interest.
- (d) Postal Savings Bank.
- (e) Bank of Deposit.
  - (1) Deposit slip.
  - (2) Check book.
- (f) Promissory note.
- (g) Bank discount.
- (h) Commercial paper.
- (i) Six Percent Method.

## Seventh Grade, A Class

The work of 7 A consists of intuitional observational and constructive geometry paralleled with related work in arithmetic, mensuration, ratio and proportion, practical measurements, etc. The geometry adapted to this grade is geometry of form, size and position.

I. Geometry of Form.

- (a) Geometric figures.
  - (1) Square, triangle, circle, arc and cubs.
- (b) Simple construction work.
- (c) Construction of triangles, perpendiculars; bisecting a line; bisecting an angle; parallel lines; dividing a line.
- (d) Geometric patterns.
- (e) Drawing to scale.
- (f) Similar figures and symmetry.
  - (1) The pantograph.
  - (2) Plane figures formed by curves.



- (3) Solids bounded by curves.
- (g) Outdoor work.
- II. Geometry of Size.
  - (a) Practical measurements of length.
    - (1) Outdoor work.
  - (b) Estimates of areas.
    - (1) Area of a rectangle, parallelogram, triangle, trapezoid.
  - (c) Ratio and proportion applied to similar figures and proportional lines. Outdoor work.
  - (d) Study of the circle.
    - (1) Area of circle; circumference, diameter, and radius.
  - (e) Study of volumes.
    - (1) Volume of a rectangular solid.
    - (2) Volume of a cylinder.
  - (f) Metric measure.
    - (1) Length, weight, capacity.
- III. Geometry of Position.
  - (a) Fixing positions.
    - (1) Positions on Maps.
    - (2) Map drawing and location.
  - (b) Locating Points.
    - (1) Points equidistant from two points.
    - (2) Distance of a point from a line.
    - (3) Position fixed by two lines.
    - (4) Problems in locating points.
  - (c) Use of angles to determine position.
    - (1) Drawing angles of various degrees.
- IV. Supplementary Work.
  - (a) Square Root.
  - (b) Volume of a Prism.
  - (c) Lateral Surfaces and Volumes.
  - (d) Volume of a Sphere, Cone.

## Eighth Grade, B Class

Algebra furnishes the material for the first half of the year, the second half being devoted to those topics of business arithmetic which are appropriate to the student's maturity.

The use of the formula in algebra has already been shown in the seventh grade. The work in algebra is such as every boy and girl should become familiar with; the formula is needed in reading books and articles of various kinds. The graph is used in many lines of business and study, and the negative number is commonly used.

- I. The Formula.
  - (a) Abbreviations and symbols.
  - (b) Simplifying.
  - (c) Evaluating formulas.
  - (d) Formulas used in shops, business and the home.
- II. The Equation.
  - (a) Unknown quantity.
  - (b) Equations requiring addition, subtraction, multiplication and division.
- III. The Graph.
  - (a) Unknown quantity.
  - (a) Value of Graph.
  - (b) Use of Graph.
    - (1) Pictogram.
    - (2) Squared paper.
  - (c) Kinds of graphs.
    - (1) Interest graph.
    - (2) Wage graph.
    - (3) Curves as graphs.

- (4) Temperature graph.
- IV. Negative Numbers.
  - (a) Need for negative numbers.
  - (b) Addition, subtraction, multiplication and division of negative numbers.
- V. Algebraic Operations.
  - (a) Addition, subtraction, multiplication and division.
- VI. Further Use of Algebra.
  - (a) Simple machines.
  - (b) Problems in business.

## Eighth Grade, A Class

- I. The Arithmetic of Trade.
  - (a) Ordering goods.
  - (b) Invoice and bills.
  - (c) Accounts.
  - (d) Profit and Loss.
  - (e) Commercial discount.
  - (f) Short Methods and Aliquot parts.
  - (g) Foreign Money.
  - (h) Metric System.
- II. The Arithmetic of Transportation.
  - (a) Passenger rates.
  - (b) Freight rates.
  - (c) Express rates.
  - (d) Parcel Post.
- III. The Arithmetic of Industry and Building.
- IV. The Arithmetic of Banking.
  - (a) Depositing and drawing money.
    - (1) Use of Bank Book, deposit slip, check.
  - (b) Borrowing from a bank.
- V. Arithmetic of Corporations.
  - (a) Stocks and Bonds.
    - (1) Common and preferred stock.
    - (2) Registered and coupon bonds.
  - (b) Mortgage.
  - (c) Profit sharing.
  - (d) Workmen's sharing.
- VI. Arithmetic of Community Life.
  - (a) Insurance.
    - (1) Property.
    - (2) Accident.
    - (3) Personal.
  - (b) Building and Loan Associations.
- VII. Arithmetic of Civic Life.
  - (a) Expenses of Government.
  - (b) Taxes.
    - (1) Local, state, national.
    - (2) Illustrations of each.

## Suggestive Text Books

|                                 |                       |
|---------------------------------|-----------------------|
| Alexander-Dewey Arithmetic..... | Longmans' Green & Co. |
| Elementary Book.                |                       |
| Intermediate Book.              |                       |
| Advanced Book.                  |                       |
| The Anderson Arithmetic.....    | Silver-Burdett & Co.  |
| Book I                          |                       |
| Book II                         |                       |
| The Thorndike Arithmetics.....  | Rand-McNally Co.      |
| Book I                          |                       |
| Book II                         |                       |
| Book III                        |                       |

|  |                                    |
|--|------------------------------------|
| Hamilton's Essentials of Arithmetic..... | American Book Co.                  |
| Three Book Series.                       |                                    |
| Everyday Arithmetic—Hoyt & Peet.....     | Houghton-Mifflin Co.               |
| Book I                                   |                                    |
| Book II                                  |                                    |
| Junior High School Mathematics.....      | Wentworth-Smith<br>Ginn & Company  |
| Book I                                   |                                    |
| Book II                                  |                                    |
| Book III                                 |                                    |
| Junior High School Mathematics.....      | John C. Stone<br>Sanborn & Company |
| Book I                                   |                                    |
| Book II                                  |                                    |
| Book III                                 |                                    |
| Junior High School Mathematics.....      | Taylor & Allen<br>Holt             |
| Book I                                   |                                    |
| Book II                                  |                                    |
| Book III                                 |                                    |
| Junior High School Mathematics.....      | Theodore Linquist<br>Scribners     |
| Book I                                   |                                    |
| Book II                                  |                                    |
| Book III                                 |                                    |

## Arithmetic Tests

- Courtis Standard Research Tests in Arithmetic, series B. S. A.  
 Courtis, 82 Eliot Street, Detroit, Mich.  
 Courtis-Cleveland Arithmetic Tests.  
 Cleveland Survey Tests.  
 Monroe-Diagnostic Tests in Arithmetic. Bureau of Educational Research, Urbana, Illinois.  
 Peet and Dearborn-Progress Tests in Arithmetic. Houghton, Mifflin Company.  
 Woody—Arithmetic Tests. . .

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 Brown and Coffman, "How to Teach Arithmetic." Rowe Peterson Company.  
 Charters, W. W., "Teaching the Common Branches." Chapter XII.  
 Freeman, F. N., "Psychology of the Common Branches." Chapter IX. Houghton, Mifflin Company.  
 Klapper, Paul, "The Teaching of Arithmetic." D. Appleton Company.  
 Kendal and Mirick, "How to Teach the Fundamental Subjects." Chapter III. Houghton, Mifflin Company.  
 Jessup and Coffman, "The Supervision of Arithmetic." Macmillan Company.  
 Smith, David Eugene, "The Teaching of Arithmetic." Ginn & Company.  
 Stone, "The Teaching of Arithmetic."  
 Suzzalo, Henry, "The Teaching of Primary Arithmetic." Houghton, Mifflin Company.  
 Wilson, H. B. & G. M., "The Motivation of School Work." Chapter IX. Houghton, Mifflin Company.  
 Thorndike, Ed., "The New Methods in Arithmetic." Rand-McNally Company.

# Art \*

This course is intended for general guidance in the consideration of fundamental art principles and their relation to various subjects of the school curriculum. It affords opportunity for development of the three divisions of art training; representation, design and industrial art. The purposes underlying the course are conceived to be as follows: To promote originality; to fix habits of accuracy, neatness and order in the use of simple materials; to cultivate appreciation of good form, design and color in dress in the home and in the community. Methods of procedure and subject matter vary to meet conditions presented by projects and problems in the life of the child. A graphic vocabulary of symbolic forms for illustrative purposes is developed through observation and imitation.

## First Grade

### I. Representation.

**Figure:** Stick symbols of boy, girl, man, woman. Drill for skill in expressing action. Clothe the figures to represent familiar characters.

**Animals:** Rabbit, duck, chicken, mouse, goose, tortoise, bear, squirrel, fish, toad.

**Birds:** Sparrow, crow, robin, jay.

**Nature:** Fruits, vegetables, grasses, flowers, leaves, trees.

**Shelters:** Rabbit hutch, chicken coop, dog house, barn, garage, bird house, igloo, wigwam.

**Illustration of Stories, school and home activities.**

**Objects:** Tools, utensils, furniture, toys.

**Mediums:** Tearing, cutting, crayons, paints.

### II. Color.

Names of standard hues. Color recognition through observation of things in the environment. Color games.

### III. Design.

Repetition, alternation and rhythmic grouping of units. Problems in simple balance applied to blotters, booklets, baskets and other construction problems.

**Mediums:** Crayon strokes, brush spots, paper units, seeds, leaves.

### IV. Construction.

**Folding:** Seed box, envelope, cart, cradle, houses, pin wheel, boat problems for special days, furniture, house.

Introduce inch measurement.

**Booklets:** Color booklet, animal cutouts, nature, picture cutouts.

**Table Problems:** Subjects suggested by school interests of the children as stories, Indian life, occupations, doll's house.

**Textiles:** Stick printing for decoration of textiles in the doll's house. Costumes for dolls. Weaving of rugs, holders, and mats in connection with the study of cotton. Stitching applied to simple problems.

**Clay Modeling:** Rabbit, bear, squirrel, pig, hen, cow, tortoise, dishes, tools, utensils, fruit and vegetables.

## Second Grade

### I. Representation.

Review graphic forms learned in the previous grade and develop new ideas needed in illustration of stories and reading lessons.

**Figure:** Stick figure in relation to study of home and school activities. Dutch boy and girl, Indian, Arab.

**Animals:** Study animals in varied positions. Elephant, lion,

\*This outline prepared by Miss Grace M. Baker, Professor of Fine and Applied Arts, Colorado State Teachers College.

turkey, sheep, camel, ox, fox, rabbit, donkey, goat, horse, circus animals.

**Birds:** Meadow lark, warbler, cat bird, woodpecker.

**Nature:** Fruits, vegetables, flowers, seed pods, grasses, leaves, trees.

**Shelter:** Indian wigwam, Arab tent, Dutch house, Cinderella's house, trees.

**Objects:** Toys, tools and utensils used by Indians and Arabians and in home occupations.

- II. **Color:** Review color names and combine colors to produce secondary group. Compare colors in nature, recognizing light and dark of standard hues.

III. **Design.**

Arrangements of dark and light masses to develop feeling for balance.

**Subjects:** Fairy pictures of trees, and castles, birds and butterflies with flowers, booklet covers.

Arrangement of colored paper units to form borders and surface patterns involving repetition, alternation and rhythmic grouping. Interpretation and application of Indian design.

Lettering.

IV. **Construction.**

**Paper Problems:** Furniture, envelopes, houses, barn, garage, box, boat, May basket, gifts, toys, special day problems, measuring to the inch and half inch.

**Booklets:** Color booklet based upon nature study.

**Illustration Unit** from literature. Jishib, Hiawatha, Arabian Life. Birds, Animals.

**Table Problems:** Arabian life, Hiawatha, Jishib, circus.

**Textiles:** Weaving: Blanket, rug, head band, mat, dolls, toboggan, hammock.

**Stitchery:** Simple designs applied in decorative color to burlap, mats, moccasins, books, bags. Costumes for dramatizations.

**Clay:** Animal forms, beads, and utensils suggested by the study of Arabs and Indians.

## Third Grade

I. **Representation.**

**Figure:** Development of figure and costume of nationalities and characters suggested by other subjects in the curriculum. Activities of Indians and early settlers of Colorado, activities of people in the industries of our state.

**Animals:** Beaver, bear, fox, squirrel, domestic animals and fowls, insects. Development of more complex form and action than is attempted by previous grades.

**Birds:** Oriole, black bird, tauager, flicker, jay.

**Nature:** Fruits, vegetables, plants and flowers in connection with nature study.

**Shelter:** Home and public buildings. Homes of early explorers of Colorado.

**Objects:** Vehicles of transportation, tools and utensils suggested by home occupations and local industries.

**Illustration:** Indian life, life of early settlers and explorers in Colorado, means of travel, incidents suggested in reading, history and geography.

II. **Color.**

Recognition of light and dark values of standard hues. Observe color in nature and contrast values. Work for appreciation of refined color combinations. Make a color booklet.

III. **Design.**

On cross section paper develop units of design subjects such as

seeds, leaves, fruit, flowers, birds, animals. Study Indian motifs and the interpretation of Indian design.

Work for feeling of balance rhythm and good spacing in the decoration of construction problems.

Lettering, posters.

#### IV. Construction.

Paper and cardboard problems involving measuring to the quarter inch, scoring, dotted line, full line, mitering. Suggestions—envelopes, candy box, May basket, telephone pad, calendar, pen wiper, jointed toys. Introduce the circle marker. Begin use of coping saw on compo board toys.

## Fourth Grade

### I. Representation.

**Figure:** Characters suggested by the literature of the grade—Greek heroes, giant, brownie, Pilgrim, Indian, Pinocchio, Japanese. Activities of children in occupation, and sports.

**Animals:** Horse, grizzly bear, mountain sheep, chipmunk, dog, wolf.

**Birds:** Humming bird, eagle, magpie, house finch, blue jay, grosbeak, mountain jay.

**Nature:** Sprays, flowers, berries, seed pods, and trees as a basis for design and color.

**Shelter:** Spanish missions, homes of Indian and early explorers.

**Objects:** Subjects suggested by the study of industries of Colorado such as farm products, furniture, wooden utensils, vehicles of transportation and conveyance.

### II. Color.

Observe color in nature and record three values of each spectral hue in nature drawing. Learn intermediate hues and begin the study of opposites. Strive for increased appreciation of color.

### III. Design.

Development of design principles in the application of units to a given space. Decoration of a circle and a square for construction problems. Cultivate feeling for balance, rhythm and harmony in spacing.

**Motifs:** Nature, insects, birds, animals. Lettering, posters.

### IV. Construction.

Paper and cardboard construction involving measuring, scoring, mitering, pasting. Problems—telephone and list pads, calendars, booklets.

Problems for the coping saw—Toys, vehicles and machines suggested through the study of industries.

#### **Table Problems:**

Industries studied in geography, history stories, life of fur traders and explorers, Spanish missions, Pilgrim life.

**Textiles:** Study costumes for school, street and social functions. Make costumes for small figure of Dutch children, Japanese Twins, Pinocchio.

**Weaving:** Marble bag, hat band, raffia basket, Indian blanket or rug.

**Clay:** Tile, paper weight, ink well, bulb bowl. Model figures and animals suggested by various subjects of the curriculum.

## Fifth Grade

### I. Representation.

**Object Drawing:** Symbolic forms to be used in illustration of industrial and commercial geography of North America.

**Problems:**

1. Vehicles of transportation—wagons, automobiles, trains, ships, airplanes.
2. Tools, utensils, machinery.

Illustration of rhymes and riddles which suggest objects involving cylindrical and elliptical shapes. Old King Cole, Polly Put the Kettle On.

Explain meaning of Ellipse, eye level, center of vision. Effect of distance and position upon apparent size and shape of objects.

**Nature:** Drawing and painting of familiar garden products and nature sprays for purpose of securing color notes and motifs for design. Emphasize need for close observation by comparison of finished products with study. Vegetation characteristic of climatic regions of United States. Subjects suggested by Geography.

**Animals:** The horse developed from study of various incidents depicted in stories of King Arthur and Joan of Arc. Use drawings for construction of problem in compo-board. Squirrels and other fur-bearing animals. Correlate with reading material.

Animals suggested by study of commerce and industry of North America—Burrows, mules, Eskimo dogs, cattle, sheep, poultry.

**Birds:** Bluebird, heron, kingfisher, killdeer and other Colorado birds possessing widely differing characteristics.

**Figure:** Proportion and form of the human figure. Develop symbolic figure to be used as basis for illustrative drawing and costume design. Draw the figure in action.

**Costume:** Clothe symbolic figure to represent historical characters—Columbus; Spanish, French and Dutch explorers; Revolutionary soldier; Indian. This may be done through the mediums of drawing, painting or paper cutting.

**Illustration:** Subjects suggested by history:.. Voyage of Columbus and discovery of America, events in the life Lincoln, the uses of steam.

Subjects from reading: Illustrate events and incidents from the following stories: King Arthur, Joan of Arc, Little Lame Prince, The Bluebird.

## II. Color.

Use problems in illustration, nature drawing, costume and design as means of developing the following color study: Definition of the terms, hue, value, intensity, monochromatic, analogous, complementary. Hues and values of gray. Use of light, middle and dark values of color. Recognition and use of complementary color schemes.

## III. Design.

### Decoration of Construction Problem.

Develop flowers, bird, and animal motifs on cross section paper for border and surface patterns. Aim to increase the appreciation of good spacing in dark and light.

**Lettering:** Practice in freehand lettering applied to mechanical drawing problems. Study a good style of simple poster letters. Develop on cross section paper.

**Mechanical Drawing:** Make working drawings of construction problems.

## IV. Construction.

**Paper and Cardboard Construction:** Portfolios and envelopes of convenient size for preservation of school work. Construction of booklets involving principles of elementary bookbinding.

## SPECIAL DAY PROJECTS.

**Table Problems:** Supplement work in geography, history and reading. Show geographical characteristics of climatic regions of North America, voyage of Columbus, and discovery of America, subjects from stories of Joan of Arc, Little Lame Prince, King



Arthur, The Bluebird.

**Compoboard Toys:** Mechanical horse developed from study of Joan of Arc, and King Arthur. Burrow, rooster (see animal study).

**Clay Modeling:** Clay modeling for construction of sand-table figures and for form study.

## Sixth Grade

### I. Representation.

**Object Drawing:** Review perspective of circle in drawing of Greek vases. Develop parallel perspective through study of roads and streams; Greek and Roman interiors.

**Nature:** Detailed drawing of flowers, fruit and plants in various stages of development with color notes for suggestion in design.

**Animal:** Animals of South America and Europe—Elephant, monkey, alligator, llama, alpaca.

**Birds:** South American birds of brilliant plumage.

**Figure:** Stress the study of proportion and action of the figure. Draw from pose and use drawings as basis for illustration and costume design.

**Costume:** Customs of dress in European countries. Represent by means of drawing, painting or paper cutting. Greek simplicity of line and decoration applied to present day costume.

**Illustration:** Industries and life habits of people in different European countries: Holland—dairying. France—silk industry. Italy—fruit industry.

### II. Color.

Color study developed through nature drawing, costume, illustration and design. Review points covered in first grade. Study analogous and complementary harmonies.

### III. Design.

**Decoration of Construction Problem:** Give practice in the selection of ideas symbolic of a given subject and in expression of design suitable for a given purpose. Emphasize good spacing of dark and light. Use geometric and nature motif. Cut motifs from paper and apply to block print or stencil problem. Basket design developed from Greek symbolism.

**Lettering:** Free hand lettering used in connection with mechanical drawing problems. Poster lettering.

Posters: Design posters for school advertisement.

### IV. Construction.

**Paper and Cardboard Construction:** Portfolios, booklets for school work, simple bookbinding process, special day projects.

**Table Problems:** Subjects from Greek and Roman history, physical characteristics and life of people in various countries in South America and Europe, adventures of Ulysses.

**Compoboard Toys:** Venetian galley, jointed Greek warrior.

**Clay Modeling:** Study and practice methods of pottery making. Emphasize characteristics of Greek vase forms.

## Seventh Grade

### I. Representation.

**Object Drawing:** Composition of beautiful shapes, of still life and nature objects forming groups which have unity of spacing and value. Review parallel perspective. Develop two point perspective through the study of interior decoration.

**Nature:** Value study applied to flowers, fruit, vegetables, seeds. Interpretation of color value. Local trees, trees characteristic of various countries studied in geography, trees for decorative landscape.



**Animals:** Animals of Africa, Asia, and Australia. Drawings serve as a basis for development of wooden toys—Elephant, giraffe, kangaroo, monkey.

**Birds:** Decorative composition from birds of Africa, Asia and Australia.

**Figure:** Figures used in costume design.

**Costume:** Development of costume through English and Early American history as background for study of present day costume. Use nature color notes in planning dress suitable for various occasions.

**Illustration:** Activities characteristic of various social classes of Europe. Progress of early explorations in America. Stages in settlement and growth of different colonies. Homes, dress, occupations.

II. Color.

Application of good color arrangement to problems in costume design and interior decoration.

III. Design.

Appreciation of the application of design principles to all space arrangements as well as to decoration. Decorative arrangement of interiors. Expression of design principles in landscape composition and still life groups.

Distinguish between symmetrical and occult balance. Make use of both types. Translation of designs into patterns suitable for application to different mediums such as weaving, cross stitch, bead weaving.

**Lettering:** Rapid, freehand lettering using both capital and lower case letters. Poster letters of varied proportions. Extension and compression of letters to fit given spaces.

**Posters:** Design posters for school advertisement.

IV. Construction.

Paper and cardboard construction: Portfolios, elementary book-binding.

Booklet of period furniture arranged chronologically as an outgrowth of English history study.

**Comboard Toys:** Mechanical birds and animals.

**Clay Modeling:** Pottery for the home. Candlesticks, inkstand, tiles, bulb bowl, paper weight.

**Textiles:** Black print design applied to scarf, pillow top, drapery or other problem for home decoration.

## Eighth Grade

I. Representation.

**Object Drawing:** Review perspective of circle, one and two point perspective. Three point perspective presented through illustration of poem, "A House by the Side of the Road."

Objects used for interior decoration.

**Nature:** Detail drawing from plants to be used as a source of design. Value study of trees and plants in decorative composition.

**Animals and Birds:** Translation of familiar animal and bird forms into composition and decorative design.

II. Color.

Application to costume, interior decoration and design. Ways of combining color for brilliant and quiet harmonies.

III. Design.

**Design for Construction Problems:** Designs derived from flowers, bird and animal motifs used for decoration of construction problems. Study principles of radiation and measure.

**Posters:** Posters for school and community advertisement. Emphasize civic betterment.

**Lettering:** Rapid freehand lettering used on working drawings,

cards, programs and booklets. Varied styles of poster lettering. Decorative initial letters.

**Figure:** Study figure for use in illustration, costume, design and posters.

**Costume:** Study costumes of the Civil War period and compare with costumes of present day. Consider the suitability of style, color and material of costumes for different types of people.

**Illustration:** Correlate with work in English, history, and geography and social science. Illustrations to be used as basis for poster design.

**Mechanical Drawing:** Working drawings for construction problems.

#### IV. Construction.

**Paper and Cardboard Construction:** Portfolios, special day projects, elementary bookbinding.

**Table Problems:** Correlate with study of social science by working out suggestions for community betterment. A model city, street, a model farm, garden plans.

**Comboard Toys:** Mechanical toys to represent characters contributing to civic improvement enterprises, street sweeper, policeman, fireman.

**Clay Modeling:** Pottery for the home. Modeling of figure and animals.

**Textile:** Block print or stencil design applied to textile and combined with stitchery.

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Bonser, F. G., *The Elementary School Curriculum*, Ch. IX and XIV, Macmillan Company.

Dobbs, Ella, *Illustrative Handwork*, Macmillan Company.

Dobbs, Ella, *Primary Handwork*, Macmillan Company.

Sargent & Miller, *How Children Learn to Draw*, Sargent & Miller, Ginn & Company.

Sargent, W., *Fine and Industrial Arts in Elementary Schools*, Ginn & Company.

Snow & Froelich, *Industrial Art Text Books*, Peary Company.

# English and Literature

## The Reading of Literature \*

Literature may not with profit be rigidly graded for children's reading. The suitability of any classic to meet a need in a child's experience is determined by many widely varying conditions. The following outline therefore must not be regarded as fixed and unchanging. It is offered rather as suggestion of the range of resource from which much of the literature studied in the Training School is selected. Moreover, it is by no means comprehensive. The teacher of the young, alert to every opportunity of inspiring each pupil to new contacts in the world of books, is constantly breaking through and transcending whatever program other teachers with other classes may have determined. A general plan is essential to the end of economy and unity; but the wise teacher knows when to use it as a point of departure.

Again, there has been no attempt in the outline to offer a consistent plan of correlation. \*No hard-and-fast logic of sequence or of association may profitably be followed, in formative periods of literary appreciation; hence there is avoidance of insistence upon any scheme which might at times be artificial. Especially has the difficulty of offering an adequate basis of sequence in the primary grades been felt. Since the opportuniteness of presentation of a literary unit to little children depends upon constantly varying factors, any plan of grouping in outline form is apt to be misleading. Therefore merely a list of available material is presented in form of basic and supplementary readers and compilations of verse and story.

The outlines for the upper grades hint here and there at types of correlation found of value in vivifying and enriching literature. In no instance has any study been made inclusive of all suitable material which the resourceful teacher should have at her command. Moreover, many units or cycles herein offered singly are actually presented to the children in connection with many other units related in theme and spirit. It is hoped that the occasional tentative groupings suggested will point the teacher to many studies of similar type.

In many years of experimentation, we have realized satisfactory results from the plan of enriching, with a mass of related material, a few great cycles as a central core. For example, any fifth or sixth grade teacher should be able, with the King Arthur tales as a center, to interest her group in themes of chivalry and heroism embodied in many tales and poems. Such a study has proved of greater value than the consecutive use of a reading-book containing unrelated classics. Our use of school readers, indeed, after the children have mastered the tools of reading, is for the most part rather supplementary than basic.

The tentative grading herein suggested is determined in part by the content of other courses, such as history, geography and nature study. Lack of space forbids amplification here, but a study of the curriculum will reveal more or less significant connections.

Moreover, it is not herein fully indicated whether certain units listed are used for intensive study, for supplementary class reading—prepared or sight reading, for reading aloud by the teacher, for dramatization, or for individual reading, silent or oral. It is obvious that these matters must be as flexible as the grading. However, a few general principles serve as guide in determining them.

(a) Literature, an art inseparable in its origin from living speech, must be presented in large measure in oral form by the teacher until the pupil is able to draw for himself from the sources which are his birth-

\*The literature for the first five grades has been organized and classified by Miss Frances Tobey, Professor of Oral English. The Literature for the sixth, seventh and eighth grades has been organized and classified by Miss Bernice Orndorff, Training Teacher of English, Colorado State Teachers College.

right. Even in the upper grades, the teacher should occasionally make her contribution in the social situation which alone affords an adequate reason for oral reading in any class.

(b) In order that emphasis may be put from the beginning upon reading as thought-getting, and the pupil established early in habits of growingly wide and rapid reading, many easy arrangements of simple folk and literary material should be read even in the first year; and oral reading should be only one of various types of motor reaction to the printed page.

(c) Since every practice must be tested in the light of its service in the formation of a reading habit at once accurate, appreciative, and rapid, care must be taken that increasingly extensive silent reading be stimulated, throughout the grades, by many motivations: in the light of the entire curriculum, of local and world affairs, of analogies and contrasts of theme and treatment, of group interests, of individual interests.

(d) It follows that wide variation of individual range of reading is inevitable, even desirable.

(e) Oral reading, to the ends of fuller appreciation of literary values, more nearly complete identification with the human experience reflected in the literature read, and the development of personality through luminous expression, has its place throughout the grades. But its declared ends should be social, never formal; it should comprise only a relatively small part of the child's reading; it should concern itself only with pure literature; it should illuminate such literature by reflecting its emotional, imaginative, and artistic values.

## Kindergarten

**POEMS:** NURSERY RHYMES—Around the Green Gravel, Baa, Baa, Black Sheep, Bye Baby Bunting, Cock-a-doodle Doo, Daffy Down Dilly, Hey Diddle Diddle, Hickory Dickory Dock, Humpty Dumpty, If All the Seas Were One Sea, I had a Little Nut Tree, I Love Sixpence, In Marble Walls, I Saw a Ship A-Sailing By, Jack and Jill, Jack Spratt, Little Bo-Peep, Little Boy Blue, I Saw Three Ships Come Sailing By, Little Jack Horner, Little Miss Muffet, Mistress Mary, Old King Cole, One Misty, Musty Morning, Queen of Hearts. See, Saw, Marjorie Daw, Sing a Song of Sixpence, The Cocks on the Housetop, The Man in the Wilderness Asked Me, The North Wind Doth Blow, There Was a Crooked Man, There Was a Little Guinea Pig, There Was an Old Woman Tossed Up in a Basket, There Was an Old Woman Who Lived in a Shoe, The Wind Must Blow Three Little Kittens, Wee Willie Winkie, Winter Has Come; CHRISTINA ROSSETTI—A City Mouse Lives in a House, At the Seaside, Boats Sail on the River, Brown and Furry, Horses of the Sea, Hurt No Living Thing, If All Were Rain and Never Sun, Mix a Pancake, On the Grassy Bank, The Peach Tree on the Southern Wall, What is Pink, Wrens and Robins in the Hedge; JANE TAYLOR—I Like Little Pussy, Pretty Cow; POULSSON—Baby's Breakfast, Welcome to Spring; WORDSWORTH—March; PALGRAVE—Little Child's Hymn; ALLINGHAM—Swing Song; STEVENSON—My Bed is a Boat, Rain, Singing, The Swing, Time to Rise, The Cow; LEAR—The Nonsense Alphabet; ALMA TADEMA.—The Robin; DASKAM—The Sleepy Song; WADSWORTH—Over in the Meadow; DUFFENBACK—The Mouse's House; LORD HOUGHTON—Lady Moon; BIRD—Fairy Folk; FOLK LORE READER, Book I—When We Have Tea; UNKNOWN—How They Sleep, The Fairy, The World's Music, Two Little Kittens.

**STORIES:** The Three Bears, The Three Pigs, Little Red Riding Hood, The Gingerbread Boy, Chicken Little; All About Johnnie Jones, (Caroline Verhoeff); Boston Collection of Kindergarten Stories; The Story Hour.

**PICTURE BOOKS:** DUTTON—Book of Ships; BROOKS—Johnny Crow's Garden; BURGESS—Goops; CALDECAT—Picture Book;

FRANCES—Book of Cheerful Cats; LANE—Beauty and the Beast;  
 WEATHERLY—Book of Games; GREENAWAY—An Apple Pie,  
 Under the Windows, Mother Goose; VOLLAND—Mother Goose;  
 JESSIE WILCOX SMITH—Mother Goose.

## First Grade

The following text books offer a wide range of simple verse and folk tale in suitable form:

|   |   |
|---|---|
| Riverside Primer and First Reader.....                                      | Van Sickle, Seegmiller and Jenkins<br>(H. M.) |
| Reading—Literature Primer and<br>First Reader.....                          | Edson-Lang (S. & Co.)                         |
| Reader .....  | Edson-Lang (S. & Co.)                         |
| Primary School Reader—Book One.....   | Elson (S. F. & Co.)                           |
| The Progressive Road to Reading—<br>Story Steps.....                        | Kleiser, Ettinger and Shimer<br>(S. B. & Co.) |
| The Easy Road to Reading—Primer.....  | Smith (L. & C.)                               |
| The Winston Readers—Primer.....   | Firman and Maltby (J. W. Co.)                 |
| Literary Readers—Book One.....  | Young and Field (G. & Co.)                    |
| Studies in Reading—Primer and<br>First Grade.....                           | Searson and Martin (Univ. Pub. Co.)           |
| Story Hour Readers—Primer and<br>Second Book.....                           | Coe and Christy (Am. B. Co.)                  |
| Summers Readers—First .....   | Summers (B. & Co.)                            |
| McKloskey Primer .....  | (G. & Co.)                                    |
| Beacon First and Second Reader.....   | Fassett (G. & Co.)                            |
| Horace Mann First Reader.....   | Hervey and Hix (L. G. & Co.)                  |
| Aldine Primer and First Reader .....  | Bryce and Spaulding (N. & Co.)                |
| Beginner's Series First Reader .....  | (H. M.)                                       |
| Dramatic First Reader.....  | Cyr. (G. & Co.)                               |
| Red Riding-Hood and the Seven Kids<br>Action, Imitation and Fun Series..... | Pratt-Chadwick (Ed. Pub. Co.)                 |
| Bow-Wow and Mew-Mew.....  | Pratt-Chadwick (Ed. Pub. Co.)                 |
| Sunbonnet Babies' Primer.....   | Grover (R. Mc.)                               |
| Overall Boys' Primer.....   | Grover (R. Mc.)                               |
| Hiawatha Primer .....   | Holbrook (H. M.)                              |
| Storyland in Play.....  | Skinner (R. Mc.)                              |

### FURTHER POETRY SOURCES

|                                       |                              |
|---------------------------------------|------------------------------|
| Mother Goose                          |                              |
| Child's Garden of Verses.....         | Stevenson                    |
| Songs of Innocence.....               | Blake                        |
| Songs of Tree Top and Meadow .....    | McMurry (Pub. Sch.)          |
| Child's Book of Verses.....           | Manchester                   |
| Little Rhymes for Little Readers..... | Seegmiller (R. Mc.)          |
| Graded Poetry—Book One.....           | Alexander-Blake (Mer. & Co.) |
| For the Children's Hour.....          | Bailey and Lewis (Brad.)     |
| Classic Stories.....                  | McMurry (Pub. Sch.)          |
| Stories to Tell to Children.....      | Bryant (H. M.)               |
| How to Tell Stories to Children.....  | Bryant (H. M.)               |
| Firelight Stories.....                | Bailey (Brad.)               |
| Nature Study and Literature.....      | McGovern (Flan.)             |
| The Golden Windows.....               | Richards (L. B. & Co.)       |
| Stories and Story-Telling.....        | Keyes (Ap. & Co.)            |
| The Story of Ab.....                  | Waterloo (D. P. & Co.)       |
| Nature Myths.....                     | Holbrook (H. M.)             |
| Tiny Hare and His Friends.....        | Sykes (L. B. & Co.)          |
| Half a Hundred Stories.....           | Half a Hundred Writers       |
| Uncle Remus.....                      | Harris                       |
| Fairy Tales.....                      | Grimm Brothers               |
| Tales of Laughter.....                | Wiggins and Smith (G. & D.)  |

|  |                     |
|--|---------------------|
| Why the Chimes Rang.....                 | Alden (B. M.)       |
| Good Stories for Great Holidays.....     | Olcott (H. M.)      |
| Aesop's Fables                           |                     |
| In the Child World.....                  | Poulsson (Brad.)    |
| Fairy Tales Every Child Should Know..... | Mabie (D. P. & Co.) |
| Stories Children Need.....               | Bailey (Brad.)      |
| Child Life.....                          | Blaisdell (Mac.)    |
| Parables from Nature.....                | Gatty               |
| Japanese Fairy Tales.....                |                     |
| Hollow Tree and Deep Woods.....          | Paine (Harp.)       |
| Nature Stories.....                      | Mary Gardner (Mac.) |
| Around the World in Myth and Song        |                     |
|  | Holbrook (H. M.)    |
| Classic Myths.....                       | Judd (R. Mc.)       |
| Andersen's Fairy Tales.....              |                     |
| Japanese Folk Stories.....               | Mixon and Roulet    |
| Story Teller's Magazine.....             |                     |

**EXAMPLES OF POETRY TAUGHT:** MOTHER GOOSE—Peter Piper, Old King Cole, Five Little Pigs, The North Wind Doth Blow, Blow Wind Blow, Rain, Rain, Go Away; ROBERT LOUIS STEVENSON Autumn Fires, The Wind, Windy Nights, The Rain is Raining All Around, Where Go the Boats, My Shadow, Foreign Children, Bed in Summer, The Sun's Travels, the Moon; CHRISTINA ROSSETTI—O Wind, Where Have You Been, Dancing on the Hill-tops; JANE TAYLOR—Twinkle, Twinkle, Little Star; TENNYSON—Sweet and Low, Minnie and Winnie, The Bee and the Flower; EUGENE FIELD—Seein' Things, Wynken, Blynken, and Nod, The Night Wind, The Duel, The Rock-a-Bye Lady; GEORGE MACDONALD—Where Did You Come From, Baby Dear; ELIZABETH PRENTISS—Sleep, Baby, Sleep; CLARA BATES—Who Likes the Rain; POULSSON—The Sunbeams; COOPER—Come, Little Leaves; MACK—Little Ducks; WILLIAM BLAKE—The Lamb; VAN DYKE—"This is the Carol the Robin Sings;" CHILD—Thanksgiving Day; UNKNOWN—Grasshopper Green.

**TYPICAL STORIES:** FOR THE CHILDREN'S HOUR—The Anxious Leaf, (also in Classic Stories). The Shoemaker and the Elves, (also in Stories to Tell to Children, Grimm's Fairy Tales, Free and Treadwell Second Reader, Great Stories for Great Holidays), Proserpina, Story of the Christ Child, Coming of the King, How the Fir Tree Became a Christmas Tree, Little Cosette, Brave Tin Soldier, (also in Anderson's Fairy Tales and Free and Treadwell's Second Reader), The Wind and the Sun (also in Aesop's Fables, In the Child World, and Stories to Tell to Children), Silvercap, or King of the Frost Fairies, Legend of the Dandelion, Clytie, (also in Nature Stories, Around the World in Myth and Song, Good Stories for Great Holidays, In the Child World, Classic Myths), Hans and the Wonderful Flower, Pippa's song, or Pippa Passes, Matsuma's Mirror, Arachne (also in Good Stories for Great Holidays), Goldenrod and Aster; STORIES TO TELL TO CHILDREN—Epaminondas, (also in Aesop's Fables and Stories Children Need), Piccola, Story of the Pink Rose; HOW TO TELL STORIES TO CHILDREN—The Pig Brother (also in Golden Windows), Star Dollars, Story of the First Christmas Tree, Legend of Christmas Eve, or the Three Wishes, The Leak in the Dyke, (also in In The Child's World), Raggylug, The Pied Piper, Why the Morning Glory Climbs; GOOD STORIES FOR GREAT HOLIDAYS—Why the Evergreens Keep Their Leaves, (also in Classic Stories and Riverside Second Reader), The Months, (also in Stories Children Need), Story of Saint Valentine, (also in Saints and Friendly Beasts), Betsey Ross and the Flag, The Lesson in Faith, (also in Parables from Nature and In the Child's World), The Little Butterfly's Brothers, The Golden

Goose, (also in Tales of Laughter and Story Tellers' Magazine, December, 1914), King of the Cats; IN THE CHILD'S WORLD—Vulcan, Echo, (also in Classic Myths); STORIES CHILDREN NEED—The Bluebird; NATURE MYTHS—Why the Bear Has a Short Tail, How the Robin's Breast Became Red, The First Butterflies; AESOP'S FABLES—The Hare and the Tortoise, The Lame Man and the Blind Man, The Sun and the Wind; UNCLE REMUS; TINY HARE AND HIS FRIENDS—Why Tony Bear Went to Bed, Tony Bear's Christmas Tree, Easter Bunny, Son Cat's First Mouse, Son Cat's Surprise; TALES OF LAUGHTER—Seven at One Blow, The Wee, Wee, Mannie; HOLLOW TREE AND DEEP WOODS—A Rain in the Night, Why the Rabbit Explains; HALF A HUNDRED STORIES—Frost Fairies and Water Drops, Grandma's Thanksgiving Story, Father Time and His Children; NATURE STUDY AND LITERATURE—The Poplar Tree, Legend of a Chrysanthemum; ANDERSEN'S FAIRY TALES—Little Tuk, Great Clause and Little Clause; FAIRY TALES EVERY CHILD SHOULD KNOW—Aladdin or the Wonderful Lamp; STORIES AND STORY TELLING—Tom Thumb, (also in Hero Folk of Ancient Britain); FIRELIGHT STORIES—Why the Bear Sleeps All Winter; GRIMM'S FAIRY TALES—Cinderella; THE GOLDEN WINDOWS—The Hill, The Wheatfield, The House With the Golden Windows; JAPANESE FOLK STORIES—Princess Moonbeam, Frost Rabbits; THE HAPPY PRINCE AND OTHER TALES (Oscar Wilde)—The Selfish Giant; FREE AND TREADWELL SECOND READER—The Mouse, Son Cat's Surprise; TALES OF LAUGHTER—Seven at Sleeping Beauty; RIVERSIDE SECOND READER—The Steam Engine; STORY TELLER'S MAGAZINE, March, 1914—The Foolish Bears; December, 1914—Little Gretchen and the Wooden Shoes; BIBLE—Moses in the Bullrushes.

## Second Grade

The following text books offer a wide range of simple verse and folk tale in suitable form:

|  |  |
|--|--|
| Child World Second Reader.....                   | Browne, Withers and Tate<br>(John. Pub. Co.) |
| Circus Reader.....                               | Buffington, Weiner and Jones<br>(S. & Co.)   |
| Second Reader.....                               | Merrill                                      |
| Robert Louis Stevenson Reader.....               | (Scrib.)                                     |
| Eugene Field Reader.....                         | Harris and Cooley (Scrib.)                   |
| Little Dramas for Primary Grades.....            | Skinner (R. Mc.)                             |
| Child Lore Dramatic Reader.....                  | Bryce and Spaulding (Scrib.)                 |
| Little Black Sambo.....                          | Bonnerman (R. & B. Co.)                      |
| Reynard, The Fox.....                            | Smythe (Am. B. Co.)                          |
| Fairy Ring.....                                  | Wiggin (G. & D.)                             |
| Merry Animal Tales.....                          | Bigham (L. B. & Co.)                         |
| Adventures of Peter Cottontail.....              | Burgess (L. B. & Co.)                        |
| Bunny Cotton-Tail.....                           | Smith (Flan.)                                |
| Bunny Rabbit's Diary.....                        | Blaisdell (L. B. & Co.)                      |
| Aesop's Fables Vol. I and II.....                | Pratt-Chadwick (Ed. Pub. Co.)                |
| Fifty Famous Fables.....                         | McMurry (J. Pub. Co.)                        |
| Little Red Riding Hood and Other<br>Stories..... | From Lang's Blue Fairy Book (L.<br>G. & Co.) |
| Peacock Pie.....                                 | Ragozin (W. B. Har.)                         |
| Siegfried.....                                   | Children's Red Book (R. & B. Co.)            |
| Hansel and Gretel.....                           | Baldwin                                      |
| Elf Boy in Spring.....                           | Blaisdell (L. B. & Co.)                      |
| Twilight Town.....                               | Skinner (R. Mc.)                             |
| Story Land in Play.....                          | Walter de la Mare (Holt)                     |



## Tales and Customs of the Ancient

|                                       |                               |
|---------------------------------------|-------------------------------|
| Hebrews .....                         | Herbst (Flan.)                |
| Indian Story of Ji-Sheb.....          | Jenks (At. M. & Co.)          |
| Children of the Cliff.....            | Wiley and Edick (Ap.)         |
| Lodrix, the Little Lake Dweller.....  | Wiley and Edick (Ap.)         |
| Children's First Book of Poetry.....  | Emelie Kip Baker (Am. B. Co.) |
| Graded Poetry, Book Two.....          | Alexander-Blake (Mer. & Co.)  |
| Racketty-Packetty House (Drama)       | Burnett (Cen.)                |
| The Posy Ring.....                    | Wiggins and Smith (Mc. C.)    |
| Best Stories to Tell to Children..... | Bryant (H. M.)                |

Also the Second Readers of the Various series included in the First Grade outline. In the First Grade outline also are sources for Second Grade poetry and story.

**POETRY:** CHRISTINA ROSSETTI—A Birthday Gift, The Wind It Has Such a Rainy Sound, Who has Seen the Wind, Boats Sail on the River, Now the Noisy Winds Are Still, Milking Time, A Pin Has a Head, but no Hair, O Wind, Why do you Never Rest, Fly Away Over the Sea; WILLIAM BLAKE—The Lamb, Spring, The Shepherd; KINGSLEY—The Lost Doll; MILLER—Winter Song; JACOBSON—October; GEORGE MACDONALD—Little White Lily; BREWER—Little Things; FRANCIS THOMPSON—Little Jesus; COLERIDGE—If I Had But Two Little Wings, He Prayeth Best; JANE TAYLOR—The Violet, Thank You Pretty Cow; SUSAN COOLIDGE—How the Leaves Came Down; MARY MAPES DODGE—Snowflakes, Now the Noisy Winds Are Still, Nearly Ready, Night and Day; ALMA TADEMA—Lams in the Meadow; LYDIA MARIA CHILD—Who Stole the Bird's Nest; JOHN KENDRICK BANGS—The Little Elf; BURNS—A Child's Grace; ELIZABETH B. BROWNING—A Child's Thought of God; RANDS—The Wonderful World, The Pedlar's Caravan; LORD HOUGHTON—Goodnight and Goodmorning; MULOCK—Who Comes Dancing Over the Snow; CELIA THAXTER—The Spring; GEORGE ELIOT—Spring Song; ANN TAYLOR—The Boy and The Sheep; TENNYSON—What Does Little Birdie Say; COONLEY WARD—Christmas Song.

**STORIES:** MERRILL READER, Book III—Hop O' My Thumb. BEST STORIES TO TELL TO CHILDREN—Rumpelstiltskin, The Little Jackal and the Alligator, How Brother Rabbit Fooled the Whale and Mr. Elephant. GRIMM'S FAIRY TALES—Little One Eye. ANDERSEN'S FAIRY TALES—The Ugly Duckling. FAIRY TALES EVERY CHILD SHOULD KNOW—Beauty and the Beast. THE CHILDREN'S HOUR—The Legend of Arbutus. VAN DYKE—The First Christmas Tree. Legend of St. Christopher (From Schonberg Cotta Family.) BIBLE STORIES told in connection with Shepherd Life: Abraham and Lot, Isaac, Jacob and Esau, Jacob and Laban, Jacob's Journeyings, Joseph, Joseph and His Brothers, Israel in Egypt, Moses, The Plagues of Egypt, Joshua, Sampson, Samuel, Saul, Goliath, Saul and David; David Made King, Sheep Shearing, The Song of Our Syrian Guest, The Twenty-third Psalm. From the back of a Sheep to the Legs of a Boy.

## Third Grade

|                                 |                     |
|---------------------------------|---------------------|
| Peter Pan (A Drama).....        | Barrie (Scrib.)     |
| Peter and Wendy.....            | Barrie (Scrib.)     |
| Pinocchio.....                  | Collodi (G. & Co.)  |
| Snow White (A Drama),.....      | White (D. M. & Co.) |
| Grimm's Fairy Tales.....        |                     |
| Andersen's Fairy Tales—Series I |                     |
| and II.....                     | Stickney (H. & Co.) |
| Seven Little Sisters.....       | Andrews (G. & Co.)  |
| Each and All.....               | Andrews (G. & Co.)  |



|                                      |                       |
|--------------------------------------|-----------------------|
| Old Indian Legends.....              | Zitkala-Sa (G. & Co.) |
| Indian Legends.....                  | Judson                |
| Animal Folk Tales.....               | Stanley (Am. B. Co.)  |
| In the Animal World.....             | Serl (S. B. & Co.)    |
| Dutch Twins.....                     | Perkins (H. M.)       |
| Eskimo Twins.....                    | Perkins (H. M.)       |
| Japanese Twins.....                  | Perkins (H. M.)       |
| Japanese Fairy Tales.....            |                       |
| Saints and Friendly Beasts.....      | Brown (H. M.)         |
| The Adventure of Nils.....           | Lagerlof              |
| Peterkin Papers.....                 | Hale (H. M.)          |
| Swiss Family Robinson.....           | Wyss                  |
| Children's Classics in Dramatic Form |                       |
| Book III.....                        | Stevenson (H. M.)     |
| Paddy Pools (A Play).....            | Miles Malleson        |
| Blessed Birthday, a Christmas        |                       |
| Miracle Play.....                    | Florence Converse     |
| Gulliver's Travels.....              |                       |
| Graded Poetry, Book Three.....       | Alexander-Blake       |
| Child's Year Book of Verses.....     | Ruth Sawyer (Harp.)   |

Also the Third Readers of the various series included in the First Grade outline. See also the First Grade outline for poetry and story references.

**POEMS:** STEVENSON—The Little Land, The Land of Story Book; LONGFELLOW—The Children's Hour; TENNYSON—The Throstle, The Snowdrop, The City Child, The Owl; BROWNING—The Pied Piper of Hamelin; JEAN INGELow—Seven Times One; CELIA THAXTER—Wild Geese, Little Gustava; EUGENE FIELD—A Norse Lullaby, The Poppy Lady; LUCY LARCOM—Sir Robin; CHARLES and MARY LAMB—The Magpie's Nest; ALICE CARY—The Woodpecker, The Blackbird; EMILY MILLER—The Bluebird; MOORE—A visit from St. Nicholas; UNKNOWN—Lullaby of the Iroquois; MARGARET DELAND—The Christmas Silence; LAURA RICHARDS—A Child's Thanksgiving; RILEY—The Bear Story; VANDEGRIFT—The Sandman; EMERSON—A Fable; OLIVER HERFORD—The Elf and the Dormouse; JOHN B. TABB—A Bunch of Roses; OLD CAROL—I saw Three Ships; RICHARD WATSON GILDER—A Midsummer Song; NORA PERRY—The Coming of Spring; H. H.—September; DODGE—When the Noisy Winds Are Still; EMILY DICKINSON—A Day; KIPLING—The Seal's Lullaby, The Swallow's Nest.

**STORIES:** GRIMM'S Fairy Tales—Snow White and the Seven Dwarfs, The King of the Birds, The Twelve Brothers, Snow White and Rose Red, The Frog Prince, Diamonds and Toads; WILLISTON—The Tongue-Cut Sparrow; ANDERSEN'S Fairy Tales—Five Peas in a Pod, The Snow Man; AESOP'S FABLES—The Man, The Boy and the Donkey, The Crab and His Mother, The Two Frogs; INDIAN LEGENDS (Judson)—SAINTS AND FRIENDLY BEASTS; The Mouse Tower on the Rhine; Pandora; INDIAN MYTHS (Judson); The Golden Touch; The Striped Chipmunk's Thanksgiving Dinner; The Christmas Angel (Katherine Pyle); BIBLE—The Good Shepherd, The Christmas Story; VAN DYKE—The Christmas Tree That Wanted to Bear Leaves; TOLSTOI—Where Love is There God is Also; Tiny Tim (from Dickens' Christmas Carol); Miss Alcott's Scrap Bag—Tilly's Christmas FOR THE CHILDREN'S HOUR—Herr Oster Hans; Stories of Lewis Clark and Pike; Sailor Man (Laura E. Richards); UNCLE REMUS; SETON—Lobo; JUNGLE BOOK—Riki-Tiki-Tavi.

## Fourth Grade

|   |                           |
|---|---------------------------|
| Hiawatha .....  | Longfellow                |
| Indian Legends .....  | Bemister (Mac M.)         |
| Docas the Indian Boy .....  | Snedden (H. & Co.)        |
| Nature Myths .....  | Holbrook (H. M.)          |
| Robinson Crusoe .....   | De Foe (H. M.)            |
| Arabian Nights' Entertainment .....                               | Lane (G. & Co.)           |
| Eaglet in the Dove's Nest .....                                   | Alcott                    |
| Norse Stories from the Eddas .....                                | Mabie (D. M. & Co.)       |
| Viking Tales .....  | Hall (G. & Co.)           |
| Northland Heroes .....  | Holbrook (H. M.)          |
| Hero Folk of Ancient Britain .....                                | Wiltse (G. & Co.)         |
| Kingsley's Heroes .....   | Ball (G. & Co.)           |
| Children's Classics in Dramatic<br>Form—Book IV .....             | Stevenson (H. M.)         |
| Men of Old Greece .....   | Hall (L. B. & Co.)        |
| The Wonder Book .....   | Hawthorne                 |
| Tanglewood Tales .....  | Hawthorne                 |
| Fifty Famous Stories Retold .....                                 | Baldwin                   |
| Stories of American Life and<br>Adventure .....                   | Eggleston (Am. B. Co.)    |
| Stories from American History .....                               | Turpin (Mer. & Co.)       |
| Historical Plays for Children<br>Everychild's Series .....        | Bird and Starling (Mac.)  |
| Alice in Wonderland .....   | Carroll                   |
| Water-Babies .....  | Kingsley                  |
| A Little Boy Lost .....   | W. H. Hudson              |
| Just So Stories .....   | Kipling                   |
| Adventures of a Brownie .....                                     | Mulock                    |
| The Rose and the Ring .....                                       | Thackarey                 |
| The Wonder Clock .....  | Pyle (Harp.)              |
| The Golden Goose .....  | Tappan (H. M.)            |
| Little Daffydowndilly .....                                       | Hawthorne (R. L. S.)      |
| Six That Pass While the Lentils Boil<br>(Portmanteau Plays) ..... | Stuart Walker (S. & K.)   |
| Our Birds and their Nestlings .....                               | Walker (Am. B. Co.)       |
| Black Beauty .....  | Sewall                    |
| Scottish Fairy Book .....   | Grierson (Stokes)         |
| English Fairy Tales .....   | Jacobs (Put.)             |
| Blue Fairy Book .....   | Lang (L. G. & Co.)        |
| Dame Wiggins and Her Seven<br>Wonderful Cats .....                | Ruskin (Mer. & Co.)       |
| The Tortoise and the Geese .....                                  | (H.-M.)                   |
| East India Fables .....   | Rajou (D.)                |
| Starland .....  | Ball (G. & Co.)           |
| Astronomy from a Dipper .....                                     | Clarke (H.-M.)            |
| Half Hours with the Summer Stars .....                            | Proctor (Mc. Cl.)         |
| Stars in Song and Legend .....                                    | Porter (G. & Co.)         |
| Child Stories from the Masters .....                              | Menefee (R. Mc.)          |
| Bolenius Fourth Reader .....                                      | Bolenius (H.-M.)          |
| Golden Numbers .....  | Wiggins and Smith (McCl.) |
| Poems Every Child Should Know .....                               | Burt (D. P. & Co.)        |
| Graded Poetry—Book Four .....                                     |                           |

Also other Fourth Readers of Series mentioned in First Grade Outlines; and poetry and story sources listed earlier.

**POEMS:** FIELD—Little Boy Blue, The Shut Eye, Jest 'Fore Christmas; SHAKESPEARE—Hark, Hark the Lark; When That I Was and a Little Tiny Boy; HEYWOOD—Up Little Birds That Sit and Sing, Morning Song; DEKKER—Golden Slumbers Kiss You; TENNYSON—The Brook; BROWNING—Pippa's Song; WORDSWORTH—My Heart Leaps Up, Lucy Gray, The Pet Lamb, The Kitten and Falling

Leaves; MARY HOWETT—Fairies of Caldon Low; COLERIDGE—Choral Song to the Illyrian Peasants; SWINBURNE—A Baby's Feet, A Baby's Hands, White Butterflies, A Baby's Eyes; CELIA THAXTER—Sand Piper; BRYANT—Robert of Lincoln; LONGFELLOW—Village Blacksmith, Christmas Bells; LOWELL—The First Snowfall, The Fountain; WHITTIER—Barefoot Boy; G. WITHER—Listening Child; RILEY—Little Orphant Annie and other poems; LEAR—Owl and the Pussy Cat; ALDRICH—Kris Kringle; JAMES HOGG—A Boy's Song; ISAAC WATTS—Cradle Hymn; EDWIN ARNOLD—The Swallows, The Swallow's Nest; THOMAS NASH—Birds in Spring; ALLINGHAM—Robin Redbreast, Wishing; CHRISTINA ROSSETTI—Hope is Like a Harebell, There's Nothing Like the Rose; ALMA TADEMA—A Blessing for the Blessed, Strange Lands, Snowdrops; BJORNSON—The Tree; HELEN GRAY CONE—Dandelions; COOLIDGE—Answers to a Child's Questions; Star Spangled Banner and America; Psalm 121.

**STORIES:** GRIMM'S Household Tales—The Fisherman and His Wife; ENGLISH FAIRY TALES—The White Cat, Prince Cheney; ANDERSEN'S FAIRY TALES—The Flying Trunk, The Nightingale, The Emperor's New Clothes; NORSE HEROES AND TALES—Valhalla and It's Gods, Iduna and Her Apples, Thor and the Frost Giants, Sif's Hair, Loki's Punishment; CANTERBURY TALES—Faithful Constance, Patient Criselda; AMERICAN HISTORY STORIES; TORTOISE AND THE GEESE—Fables; TALES from MARIA EDGEWORTH; UNCLE REMUS STORIES; BIBLE—The Gate Beautiful; Stories from SETON and WM. J. LONG; THE SPELL OF THE ROCKIES (Enos Mills)—Rob of the Rockies, Little Boy Grizzly A Midget in Fur; IN BEAVER WORLD (Mills); ROCKY MOUNTAIN WONDERLAND—Wild Mountain Sheep, A Mountain Pony, The Grizzly Bear, My Chipmunk Callers; Marjorie Fleming; The Story of the Other Wise Man; THE CHRISTMAS GIFT—Sabot of Little Wolff (Coppée); Christmas Carol, (W. J. Long), in WAYS OF WOOD FOLK; Christmas on the Singing River (J. S. Harbon); First Thanksgiving (Blaisdell Ball), in SHORT STORIES FROM AMERICAN HISTORY; Old Fashioned Thanksgiving (Alcott), in AUNT JOE'S SCRAP-BAG; Runway's Thanksgiving (Borgesen), in NORSELAND TALES; A Thanksgiving Dinner that Flew Away (Butterworth), in OUR HOLIDAYS; The General's Easter Box, in OUR HOLIDAYS; Hallowe'en Myths, in OUR HOLIDAYS (Brown and Hall).

## Fifth Grade

|   |                 |
|---|-----------------|
| King Arthur and His Knights.....                                  | Warren          |
| King Arthur and His Knights.....                                  | Pyle (Scrib.)   |
| Coming and Passing of Arthur.....                                 | (R. Mc.)        |
| The Lady of Shalott: "Let the King Reign!"; The Knights' Vow..... | Tennyson        |
| Boy's King Arthur.....  | Lanier (Scrib.) |
| Knights of the Round Table.....                                   | Frost (Scrib.)  |
| Ballads:  |                 |
| Boy's Percy.....  | (Scrib.)        |
| Marriage of Sir Gawaine   |                 |
| King Ayence's Challenge   |                 |
| Legend of Sir Guy   |                 |
| King and the Miller   |                 |
| Child.....  | (H. M.)         |
| King Arthur and King Cornwall                                     |                 |
| Tales of Chivalry.....  | Rolfe (B. M.)   |
| Stories from English History.....                                 | Church (Mac.)   |
| Lanier's Froissart.....   | (Scrib.)        |
| Liegfried.....  | (Scrib.)        |

- The Cid.....  
 (Famous Men of the Middle Ages).....Haaren & Poland (Am. B. Co.)  
 Frithjof and Roland.....Ragozin (Put.)  
 The Story of Roland.....Baldwin (Scrib.)  
 The White Ship.....Rossetti  
 The Crusaders.....Church (Mac.)  
 Stories from the Crusades.....Kelman  
 St. George and the Dragon.....(Cr.)  
 The Boy's Mabinogian Lanier.....(Scrib.)  
 (Many poems related in theme, as: Sohrab and Rostum, Matthew  
 Arnold; Opportunity—Edward Rowland Sill.)
- The Merry Adventures of Robin Hood.....Pyle (Scrib.)  
 Robin Hood Ballads.....Gayley and Flaherty
- POETRY OF THE PEOPLE (G. & CO.)**
- Enriched by poetry of nature, of free life in the open, the forest,  
 of bravery, helpfulness, honesty simplicity.
- Ex: A Song of Sherwood, Noyes; Meg Merrilies and Robin Hood  
 —Keats; Under the Greenwood Tree, Blow, Blow, Thou Winter Wind  
 —Shakespeare.
- Book of Bravery.....Collins  
 Book of Golden Deeds.....Yonge
- Joan of Arc (Aunt Kate's Story).....Carpenter (L. L. & S.)  
 The Maid of Orleans.....Stevenson (H. M.)

**(CHILD CLASSICS IN DRAMATIC FORM)**

- Jeanne d'Arc.....Boutet de Monvel (Cen.)  
 Joan of Arc.....Mark Twain (Harp.)
- Verse and tales inspired by the Great War, such as Theodosia Garrison's  
 Soul of Jeanne D'Arc, and Charlotte Crawford's Vive La France, in  
 a Treasury of War Poetry (Clárke) (H. M.)
- Little Lame Prince.....Craik (H. M.)  
 Story of My Life (Letters).....Helen Keller (R. L. S.)  
 Snow Image.....Hawthorne  
 (Poems revealing the reality of the life of the imagination, as Caoch  
 O'Lynn—Arthur Stringer; The Daffodils—Wordsworth; One, Two, Three  
 —Bunner; The Happy Little Cripple—Riley.)
- At the Back of the Northwind.....George MacDonald
- Runyan's Pilgrim's Progress.....Wm. Vaughn Moody (R. L. S.)
- The Blue Bird for Children.....Georgette Le Blanc  
 The Blue Bird.....Maeterlinck (S. B. & Co.)  
 Maeterlinck (D. M. & Co.)
- (Such related stories as The Search for the Beautiful and The  
 Knights of the Silver Shield—Raymond MacDonald Alden; The House  
 with the Golden Windows—Richards.)
- The Wonderful Chair.....Browne (Scrib.)
- Thy Kingdom Come (an Easter Miracle play).....Florence Converse  
 Atlantic Monthly Mar. '21.
- Fanciful Tales.....Stockton (Scrib.)  
 Christmas Every Day in the Year.....Howells (Scrib.)  
 Heidi.....Spyri (G. & Co.)  
 Moni the Goat Boy.....Spyri (G. & Co.)  
 Hans Brinker.....Dodge  
 The Wind Among the Willows.....Grahame (Scrib.)  
 Master Skylark.....Bennett (Cen.)
- The Jungle Book.....Kipling
- Squirrels and Other Fur Bearers.....Burroughs (H. M.)  
 Among the Farmyard People.....Burson  
 Animals at Home.....Bartlett (Am. B. Co.)  
 Wood Folk at School.....Long (G. & Co.)  
 Little Brother to the Bear.....Long (G. & Co.)

|   |                            |
|---|----------------------------|
| Wilderness Ways.....  | Long G. & Co.)             |
| The First Book of Birds.....  | Miller (H. M.)             |
| The Second Book of Birds.....   | Miller (H. M.)             |
| Birds Every Child Should Know.....  | Doubleday (D. P. & Co.)    |
| Our Birds and Their Nestlings.....  |                            |
| Our Humble Helpers.....   | Fabre (Cen.)               |
| Birds Legends and Life.....   | Walker (D. P. & Co.)       |
| One Hundred Anecdotes of Animals.....   | Billinghamurst (Lane)      |
| The Training of Wild Animals.....   | Billinghamurst (Lane)      |
| Bear Stories.....   | Carter (Cen.)              |
| The Story of a Cat.....   | Aldrich                    |
| The Oregon Trail.....   | Parkman                    |
| Flamingo Feather.....   | Monroe (Harp)              |
| Grandfather's Chair.....  | Hawthorne                  |
| Johnny Applesed.....  | Atkinson (Harp.) (G. & D.) |
| Johnny Applesed (poem).....   | Vachel Lindsay             |
| Santa Fe Trail.....   | Vachel Lindsay (Mac.)      |
| Story of a Thousand Year Pine.....  | Mills (H. M.)              |
| Cambridge Book of Poetry for Young People.....  | Kenneth Grahame (Put.)     |
| (Also much poetry in romantic and patriotic vein, relating to the history interests of the grade, as: Columbus, Defence of the Alamo, and Crossing the Plains—Miller; Drake's Drum—Newbolt; The Revenge—Tennyson; Landing of the Pilgrims—Hemans; Paul Reveré's Ride—Longfellow.) |                            |

Readers: Bolenius Sixth, Riverside Sixth.

## Sixth Grade, B Class

|  |                     |
|--|---------------------|
| <b>The Dog of Flanders</b> .....                       | Ouida (H.-M.)       |
| Pierrot, a Dog of Belgium.....                         | Dyer (D. P. & Co.)  |
| Stories of Brave Dogs.....                             | Carter (Cen.)       |
| Beautiful Joe.....                                     | Saunders            |
| <b>Buck, an Alaskan Husky</b> .....                    | London              |
|  | Bolenius VI (H-M)   |
| <b>Billy, the Dog That Made Good</b> .....             | Seton               |
|  | Bolenius VI         |
| <b>Cuff and The Woodchuck</b> .....                    | Burroughs           |
|  | Bolenius VI         |
| Rab and His Friends.....                               | Brown               |
| The Wonder Book of Horses.....                         | Baldwin (Cen.)      |
| <b>Midget, The Return Horse</b> .....                  | Mills               |
|  | Riverside VI (H-M)  |
| <b>The Bell of Atri</b> .....                          | Longfellow          |
|  | Riverside VI        |
| <b>Undine</b> .....                                    | Fouque (G. & Co.)   |
| <b>The Nurnberg Stove</b> .....                        | Ouida (H-M)         |
| Kipling Stories and Poems Every Child Should Know..... | (H-M)               |
| A Legend of St. Nicholas (a drama).....                | Dix                 |
|  | (Poet Lore, VI. 25) |
| <b>The Adventures of Ulysses</b> .....                 | Church (Mac.)       |
|  | Lamb (H. & Co.)     |
| Ulysses.....   | Tennyson            |
| The Story of Ulysses Elson Gram. Sch. R. II.....       | (S. F. & Co.)       |
| Tanglewood Tales.....                                  | Hawthorne           |
| Wonder Book.....                                       | Hawthorne           |
| <b>Story of the Aeneid</b> .....                       | Church (Mac.)       |
| Frithiof The Bold.....                                 | Holbrook (H-M)      |
| The Story of Nansen.....                               | Ole Bull            |
| <b>Captain January (Northland Heroes)</b> .....        | Richards (P.)       |
| The Life Savers.....                                   | Otis (D.)           |
| The Sea.....   | Cornwall            |
| <b>The Inchcape Rock</b> .....                         | Southey             |

|   |                     |
|---|---------------------|
| The Wreck of the Hesperus.....                | Longfellow          |
| The Chambered Nautilus.....                   | Holmes              |
| *Casabianca.....                              | Hemans              |
| Sir Patrick Spens (Poetry of the People)..... | Gayley (G. & Co.)   |
| The Long White Seam.....                      | Kipling             |
| *The White Seal.....                          | Kipling             |
| Around the World in the Sloop Spray.....      | Slocum (Scrib.)     |
| Around the World in Eighty Days.....          | Verne               |
| Twenty Thousand Leagues Under the Sea.....    | Verne               |
| The Mysterious Island.....                    | Verne               |
| *Travel.....                                  | Bates               |
| The Dragon; a Wonder Play.....                | Lady Gregory (Put.) |

## Sixth Grade, A Class

|                                   |                  |
|-----------------------------------|------------------|
| The Iliad.....                    | Church (Mac. M.) |
| *Bryant's Iliad (Selections)..... |                  |
| *Pope's Iliad (Selections).....   |                  |
| Brook's Story of the Iliad.....   |                  |
| Hero Tales.....                   | Baldwin (Scrib.) |

### \*PARIS AND HELEN \*IPHIGENIA

|   |                             |
|---|-----------------------------|
| Stories of Old Greece.....                        | Firth                       |
| Stories of Old Greece and Rome.....               | Baker (Mac.)                |
| Story of the Greeks.....                          | Guerber (Mm. B. Co.)        |
| Book of Golden Deeds.....                         | Yonge                       |
| The Golden Fleece.....                            | Baldwin (Am. B. Co.)        |
| Plutarch's Tales (Greek).....                     | Gould                       |
| *Masque of Pandora.....                           | Longfellow                  |
| The Story of Achilles Elson Gram. Sch. R. II..... | (S. F. & Co.)               |
| The Story of the Trojan War Riverside VI.....     | (H-M)                       |
| Plutarch's Tales (Roman).....                     | Gould (H. & B.)             |
| Lays of Ancient Rome.....                         | MacCaulay                   |
| The King of the Golden River.....                 | Ruskin (R. L. S.)           |
| Why the Chimes Rang.....                          | Alden                       |
| The Selfish Giant.....                            | Wilde                       |
| The Happy Prince.....                             | Wilde                       |
| A Pot of Broth (a Folk Play).....                 | Wm. Butler Yeats<br>(Mac M) |

### SIXTH GRADE READERS

|  |
|--|
| Bolenius VI (H-M)                          |
| Riverside VI Van Sickle & Seegmiller (H-M) |
| Winston Silent Reader VI (J. W. Co.)       |

## Seventh Grade, B Class

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| The Courtship of Miles Standish..... | Longfellow (S. L. S.)<br>(R. L. S.) |
| The Gentle Boy.....                  | Longfellow                          |
| Giles Corey.....                     | Longfellow                          |
| Mabel Martin.....                    | Whittier                            |
| Conquest of the Old Northwest.....   | Baldwin (Am. B. Co.)                |
| The Landing of the Pilgrims.....     | Hemans                              |
| The Building of the Ship.....        | Longfellow                          |
| A Hunting of the Deer.....           | Warner (R. L. S.)                   |
| Lady of the Lake (Prelude).....      | Scott                               |
| Wabb: The Story of a Grizzly.....    | Seton (Scrib.)                      |
| Johnny Bear.....                     | Seton (Scrib.)                      |
| Twin Babies.....                     | Joaquin Miller                      |
| Baby Sylvester.....                  | Bret Harte                          |



## Riverside VI.

(H. M. Co.)

|                                |                                 |
|--------------------------------|---------------------------------|
| Raggylug .....                 | Seton (Scrib.)                  |
| Redruff .....                  | Seton (Scrib.)                  |
| Tito .....                     | Seton (Scrib.)                  |
| The Mother Teal.....           | Seton (Scrib.)                  |
| Reynard the Fox.....           | John Masefield (Mac.)           |
| Donald .....                   | Browning                        |
| Loveliness.....                | Elizabeth Stuart Phelps (H. M.) |
| A Christmas Carol.....         | Dickens (R. L. S.)              |
| The Post Office (a Drama)..... | Tagore (Mac. M.)                |
| The Story of Scotch.....       | Mills                           |

## Wild Life in the Rockies (H-M)

|                                 |      |
|---------------------------------|------|
| An Adventure with Stickeen..... | Muir |
|---------------------------------|------|

## Riverside VIII

(H-M)

|                           |                |
|---------------------------|----------------|
| The Call of the Wild..... | London (Mac.)  |
| Before Adam.....          | London (Mac.)  |
| Jerry .....               | London         |
| Bob Son of Battle.....    | Oliphant       |
| *The Dog .....            | Peabody        |
| Our Friend the Dog.....   | Materlinck     |
| Pierrot .....             | Dyer           |
| Greyfrairs Bobby.....     | Atkinson       |
| Bingo .....               | Seton (Scrib.) |
| Wully .....               | Seton (Scrib.) |

## Wild Animals I have Known

|             |       |
|-------------|-------|
| Chink ..... | Seton |
|-------------|-------|

## Lives of the Hunted.

|                   |                      |
|-------------------|----------------------|
| Snapper .....     | Andreyev             |
| A Dog's Tale..... | Mark Twain (Harp.)   |
| That Pup.....     | Butler (D. P. & Co.) |

## Seventh Grade, A Class

|   |  |
|---|--|
| The Great Stone Face.....               | Hawthorne                                    |
| King Robert of Sicily.....              | Tales of the White Hills (H-M)<br>Longfellow |
| The Legend Beautiful.....               | Tales of a Wayside Inn (H-M)<br>Longfellow   |
| The Bluebird .....                      | Tales of a Wayside Inn (H-M)<br>Maeterlinck  |
| A Handful of Clay.....                  | Van Dyke<br>Riverside VI (H-M)               |
| *What Men Live By.....                  | Tolstoi                                      |
| *Where Love Is There God Is Also.....   | Tolstoi                                      |
| Three Arshins of Land.....              | Tolstoi<br>Riverside VI (H-M)                |
| About Ben Adhem.....                    | Hunt<br>Riverside VI                         |
| Friar Jerome's Beautiful Book.....      | Aldrich                                      |
| The Sandalwood Box.....                 | Picktha<br>Atlantic Monthly                  |
| Prue and I.....                         | Curtis                                       |
| *The Vision of Sir Launfal.....         | Lowell                                       |
| The Hour Glass (a Miracle Play).....    | Wm. Butler Yeats                             |
| The Traveling Man (a Miracle Play)..... | Lady Gregory (Put.)                          |
| Snowbound .....                         | Lowell                                       |
| The First Snowfall.....                 | Lowell                                       |
| The Snow .....                          | Emerson..                                    |
| *The Cotter's Saturday Night.....       | Burns  |
| The Huskers.....                        | Tennyson                                     |

|                                    |                                  |
|------------------------------------|----------------------------------|
| *Dora .....                        | Tennyson                         |
| Peasant and Prince .....           | Martineau                        |
| In Winter .....                    | Taylor                           |
| Winter (Sir Launfal) .....         | Riverside VI (H-M)               |
| Evangeline .....                   | Lowell                           |
| Last of the Mohicans .....         | Longfellow (R. L. S.)            |
| Deerslayer .....                   | Cooper (N. Pub. Co.)             |
| Birds and Bees .....               | Cooper (N. Pub. Co.)             |
| Birds of Killingsworth .....       | Burroughs (H-M)                  |
| Tales of a Wayside Inn (H-M) ..... | Longfellow                       |
| *The Jackdaw of Rheims .....       | Barham                           |
| The Humble Bee .....               | Emerson                          |
| Bee People .....                   | Morley (McCl.) (A. M. & Co.)     |
| The Story of Peggy Mel .....       | Burroughs                        |
| Fabre (Transl) .....               | Bolenius VI (H-M)                |
| <b>Seventh Grade Readers</b>       |                                  |
| Riverside VII .....                | Van Sickles and Seegmiller (H-M) |
| Winston Silent Reader VII .....    | (J. W. Co.)                      |
| Wild Life in the Rockies .....     | Mills (H-M)                      |

## Eighth Grade, B Class

|  |                      |
|--|----------------------|
| Rip Van Winkle .....                     | Irving               |
| Knickerbocker Stories (S. L. S.) .....   |                      |
| <b>Legend of Sleepy Hollow</b>           |                      |
| Tam O'Shanter .....                      | Burns                |
| Goblin Market .....                      | Christina Rossetti   |
| <b>Treasure Island</b> .....             | Stevenson (G. & Co.) |
| Kidnapped .....                          | Stevenson            |
| Letters to "Cunny" and Tomarcher .....   | Stevenson            |
| <b>Tempest</b> .....                     | Riverside VII (H-M)  |
| Shakespeare (H-M) .....                  |                      |
| Tempest .....                            | Chas. & Mary Lamb    |
| Riverside VII (H-M) .....                |                      |
| <b>Coaly-Bay, the Outlaw Horse</b> ..... | Seton                |
| J. H. Lit II (S. F. & Co.) .....         |                      |
| The Thundering Herd .....                | Hawkes               |
| J. H. Lit II (S. F. & Co.) .....         |                      |
| Vixen .....                              | Seton (Scrib.)       |
| Lobo .....                               | Seton (Scrib.)       |
| Lives of the Hunted .....                |                      |
| <b>David Copperfield</b> .....           | Dickens (G. & Co.)   |
| Ten Boys from Dickens .....              |                      |
| Ten Girls from Dickens .....             |                      |
| Oliver Twist .....                       | Dickens              |
| Tom Sawyer .....                         | Mark Twain           |
| Huckleberry Finn .....                   | Mark Twain           |
| Penrod .....                             | Tarkington (G. & D.) |
| The Story of a Bad Boy .....             | Aldrich              |
| At Dotheboys Hall .....                  | Dickens              |
| Riverside VI (H-M) .....                 |                      |
| Tom Brown's School Days .....            |                      |
| The Varmint .....                        | Wister               |
| Jan of the Windmill .....                | Ewing                |
| Captains Courageous .....                | Kipling              |
| <b>The Man Without a Country</b> .....   | Hale                 |
| Love of Country .....                    | Scott                |
| *Present Crisis .....                    | Lowell               |
| Gettysburg Address .....                 | Lincoln              |



|   |                                 |
|---|---------------------------------|
| Flanders Field.....                             | McCrae                          |
| America Answers.....                            | J. H. Lit. II                   |
| Message to Garcia.....                          | Hubbard                         |
| The Perfect Tribute.....                        | M. R. Andrews                   |
| Abraham Lincoln.....                            | Wilson                          |
| Letter to Mrs. Bixby.....                       | Lincoln                         |
| Abraham Lincoln Walks at Midnight.....          | Lindsay                         |
| Abraham Lincoln (a Drama).....                  | John Drinkwater (H. M.)         |
| Lincoln.....                                    | John Gould Fletcher             |
| Lincoln.....                                    | Markham                         |
| Lincoln.....                                    | Stoddard                        |
| Lincoln.....                                    | Choate                          |
| O Captain, My Captain.....                      | Whitman                         |
| Definition of a Gentlemen.....                  | Newman                          |
| Wilson's Address to Congress April, 1917        |                                 |
| "Selections from Washington, Lincoln and Grant" |                                 |
| Lee's Farewell Address                          |                                 |
| Rules of Conduct.....                           | Washington                      |
| Poor Richard's Almanac.....                     | Franklin                        |
| Grandmother's Story of Bunker Hill.....         | Riverside VII (H-M)             |
| Concord Hymn.....                               | Holmes                          |
| Barbara Fritetchie.....                         | Emerson                         |
| Boys of '76.....                                | Whittier                        |
| Up From Slavery.....                            | Coffin (Harp.)                  |
| Recessional.....                                | Booker Washington (D. P. & Co.) |
| The Yellow Jacket (a Drama).....                | Kipling                         |
|   | Hazelton and Benrimo (B. M.)    |

## Eighth Grade, A Class

|                              |                      |
|------------------------------|----------------------|
| Midsummer Night's Dream..... | Shakespeare (H. M.)  |
| The Culprit Fay.....         | Drake                |
| *Christabel.....             | (Knick Pr.)          |
|                              | Coleridge            |
| A Bunch of Herbs.....        | Burroughs (R. L. S.) |
| Apples.....                  | Burroughs            |
| Strawberries.....            | Burroughs            |
| Weeks.....                   | Burroughs            |
| Sharp Eyes.....              | Burroughs            |
| Winter Neighbors.....        | Burroughs            |
| Camping.....                 | Warner               |
| Being a Boy.....             | Warner               |
| The Blue Jay.....            | Miller               |
| Bobo.....                    | Lamb                 |
| John Burroughs.....          | Riverside VII (H-M)  |
| Julius Caesar.....           | Shakespeare          |
| William Tell.....            | Schiller             |
|                              | (McMurry Transl.)    |
| Lady of The Lake.....        | Scott                |
| Tales of a Grandfather.....  | Scott                |
| The Talisman.....            | Scott                |
| English Ballads.....         | Child (H-M)          |
| Kinmont Willie.....          | Gummere (Mac.)       |
| Jock O'the Side              |                      |
| Archie O'Cawfield            |                      |
| Hobie Nobe                   |                      |
| Dick O'the Cow               |                      |
| Adam O'Gordon                |                      |
| (and others)                 |                      |

|   |                                |
|---|--------------------------------|
| <b>The Gold Bug</b> .....                                     | Poe (H. M.)                    |
| Buccaners and Pirates of Our Coast.....                       | Stockton                       |
| The Great Carbuncle.....                                      | Hawthorne                      |
|   | Tales of the White Hills (H-M) |
| The Purloined Letter.....                                     | Poe                            |
| Masque of the Red Death.....                                  | Poe                            |
|   | J. H. Lit. II (S. F. & Co.)    |
| <b>Incident in a French Camp</b> .....                        | Browning                       |
|   | Riverside VI (H-M)             |
| The First Grenadier of France.....                            | Anon                           |
|   | Edson-Laing V (S. Co.)         |
| The Field of Waterloo.....                                    | Byron                          |
| <b>The Charge of the Light Brigade</b> .....                  | Tennyson                       |
|   | Riverside VI (H-M)             |
| *Charge of the Heavy Brigade.....                             | Tennyson                       |
| Defense of Lucknow.....                                       | Tennyson                       |
| Herve Riel.....   | Browning                       |
| Puck of Pook's Hill.....                                      | Kipling                        |
| Drums of the Fore and Aft.....                                | Kipling                        |
| Story of a Short Life.....                                    | Ewing                          |
| Ballad of East and West.....                                  | Kipling                        |
| Ballad of the White Horse.....                                | Chesterton                     |
| Poems from Kipling and Fletcher's Hist. of Eng.               |                                |
| Tommy Atkins.....   | Kipling                        |
| Fuzzy Wuzzy.....  | Kipling                        |
| The Sons of the Widow.....                                    | Kipling                        |
| <b>The Recessional</b> .....                                  | Kipling                        |
| <b>The Kipling Readers for Upper Grades</b> .....             | (Ap. & Co.)                    |
| <b>Pantaloon (a Play) (Half Hours)</b> .....                  | Barrie                         |
| <b>How They Brought the Good News from Ghent to Aix</b> ..... | Browning                       |
| Lochinvar.....  | Browning                       |
| Skipper Ireson's Ride.....                                    | Whittier                       |
| The Deacon's Masterpiece.....                                 | Holmes                         |
| Sheridan's Ride.....  | Reade                          |
| John Gilpin's Ride.....                                       | Cowper                         |
| Tam O'Shanter.....  | Burns                          |
| Paul Revere.....  | Longfellow                     |
| The Leap of Roushan Beg.....                                  | Longfellow                     |
| <b>Song of the Chattahoochie</b> .....                        | Lanier                         |
| The Brook.....  | Tennyson                       |
| The Cataract of Lodore.....                                   | Southey                        |
| <b>Miscellaneous Humor.</b>                                   |                                |
| Don Quixote.....  | Cervantes                      |
| A Yankee in King Arthur's Court.....                          | Mark Twain                     |
| Ransom of Red Chief.....                                      | O. Henry                       |
| Pigs Is Pigs.....   | Butler                         |
| Nonsense Verse.....   | Lear                           |
| Nonsense Novels.....  | Leacock (Lane)                 |
| Goops.....  | Burgess (S. Co.)               |
| Jabberwocky.....  | Carroll                        |
| The Little Peach.....   | Field                          |
| New Eng. Weather.....   | Mark Twain                     |
| Ballad of the New England Oysterman.....                      | Holmes                         |
| Don Quixote.....  | Cervantes                      |
| A Yankee in King Arthur's Court.....                          | Mark Twain                     |

Selections for grades 5, 6, 7, 8 in black type are for intensive study; selections starred \* to be presented by the teacher; all other material is extensive reading related in idea to the central unit.

## Publishers

(Ap. & Co.)—Appleton and Co..... New York  
 (Am. B. Co.)—American Book Co..... Chicago

|   |                    |
|---|--------------------|
| (At. M. & Co.)—Atchinson, Mentgee & Co.....                               | Chicago            |
| (B. & Co.)—F. D. Beatty and Co.....                                       | New York           |
| (B. M.)—Bobbs-Merrill.....  | Indianapolis       |
| (Cen.)—Century Co.....  | New York           |
| (Co.)—T. Y. Crowell Co.....   | New York           |
| (D. M. & Co.)—Dodd, Mead and Co.....                                      | New York           |
| (D.)—Dutton Co.....   | New York           |
| (D. P. & Co.)—Doubleday, Page and Co.....                                 | New York           |
| (Ed. Pub. Co.)—Educational Publishing Co.....                             |                    |
| (Flan.)—Flanagan.....   | Chicago            |
| (G. & Co.)—Ginn and Co.....   | Chicago            |
| (G. & D.)—Grossett & Dunlap.....  | New York           |
| (Harp.)—Harper and Bros.....  | New York           |
| (W. B. Har.)—Wm. Veverley Harrison.....                                   |                    |
| (H. & Co.)—D. C. Beath and Co.....  | Chicago            |
| (Holt)—Houghton, Mifflin Co.....  | Chicago            |
| (J. Pub. Co.)—B. F. Johnston Pub. Co.....                                 | Richmond           |
| (Knick, Pr.)—Knickerbocker Press, G. S. Putnam and Sons.....              | New York           |
| (Lane)—John Lane Co.....  | New York           |
| (L. B. & Co.)—Little, Brown and Co.....                                   | Boston             |
| (L. G. & Co.)—Longmans, Green and Co.....                                 | Chicago            |
| (L. L. & S.)—Lothrop, Lee & Shepard Co.....                               | Boston             |
| (L. & C.)—Lyons and Carnahan.....   | Chicago            |
| (Mac.)—Macmillan Co.....  | Chicago            |
| (Mc Cl.)—McClure.....   | New York           |
| (Brad.)—Milton Bradley Co.....  | Springfield, Mass. |
| (Mer. & Co.)—Charles Merrill and Co.....                                  | New York           |
| (N. & Co.)—Newson and Co.....   | New York           |
| (P.)—Page Co.....   | Boston             |
| (Pub. Sch.)—Public School Pub. Co.....                                    | Bloomington, Ill.  |
| (Put)—Putnam.....   | New York           |
| (R. Mc.)—Rand McNally.....  | Chicago            |
| (R. L. S.)—Riverside Literature Series, Houghton Mifflin Company.....     |                    |
| (R. & B. Co.)—Reilly and Britton Co.....                                  |                    |
| (R. P. & Co.)—Row, Peterson and Co.....                                   | Chicago            |
| (S. & Co.)—B. H. Sanborn and Co.....                                      | Chicago            |
| (Scrib.)—Charles Scribners Sons.....                                      | New York           |
| (S. F. & Co.)—Scott, Foresman and Co.....                                 | Chicago            |
| (S. L. S.)—Standard Literature Series, Newson and Company, New York.....  |                    |
| (S. & K.)—Stewart & Kidd Co.....  | Cincinnati         |
| (S. Co.)—F. A. Stokes Co.....   | New York           |
| (Univ. Pub. Co.)—University Publishing Co., Newson and Co., New York..... |                    |
| (J. W. Co.)—John C. Winston Co.....                                       | Chicago            |

# Language and Composition\*

## The Aim of the Whole Course.

The aim of the whole course in oral and written composition is to train all the children to express their thoughts in good English and in logically arranged sentences. This involves not only, constructive teaching in the use of words, in sentence making, in the orderly arrangement of sentences into paragraphs, but also the eradication of speech faults which the child brings with him to school from the street and from homes and early environment in which faulty speech prevails. Since inelegant speech, grammatical errors, bad spelling, vulgarisms, slang and the like are much more striking than faulty sentence structure, illogical order of sentences, indistinct enunciation, and loose thinking, it appears that the larger phase of this work is corrective and not constructive. This is not the case. Important as the corrective side of English teaching is, the larger task is the constructive. A teacher must not be satisfied with merely suppressing faulty speech. She must so draw her children out that they will not only be able to say something correctly, but will also have something worth saying correctly.

## Minimum Expectations.

Some children come to school with good speech habits already formed, with the ability to speak easily and accurately. Others have none of this valuable home training. Of course the less fortunate will not speak and write as well as the best at the end of a school year. It is, however, desirable and entirely possible to set a minimum standard of achievement and to expect the best and the poorest to do at least as much as the standard implies. (See example of these minimum expectations at the close of the outline of the work of each grade in Mahoney's Standards in English.)

## Accuracy First or Fluency First.

There are two groups of English teachers, one of which insists upon fluency first. Teachers in this group want children to say what they think without trying consciously to be accurate. They do not want the progress of their children to be impeded by forty-nine danger signs along the way. If, as the children proceed along their primrose bordered language way with their pink hair ribbons in an ideal blue haze, they stumble over a wrong pronoun or verb or a vulgar "aint got no" or "them there," they are to be gently sprayed with perfumed grammar long after they have finished their stroll through the flowery fields of speech, and thus cleansed of all their linguistic transgressions. The other group believe that "I seen" is as disfiguring as dirt under the finger nails and that it should be carefully scrubbed away as quickly as possible. With them accuracy first is essential. The one group would have the children talk much, write much, compose stories, edit little and group projects and would expect interest in the task to impel the school papers, write poems and essays, and work out extended individual children to seek and find the accurate and logical way of saying the things that are in their minds. The advocates of "accuracy first" believe that learning the art of speaking and writing is like learning to play a musical instrument, that little pieces carefully and accurately done soon give skill and power and confidence to undertake more complex things.

It is regretably obvious that the graduates of our elementary schools do not master the simple technic of speech and writing. Teachers do not even assume that verbs and pronouns can be mastered once for all like the multiplication tables. They tacitly admit that the prevailing "fluency first" program fails. French children are taught by the accurate, little five-finger exercise first, and are admitted by better writers and speakers than American children. Colorado Teachers Col-

\*This outline has been prepared by Dean E. A. Cross, Head of Department of English and Literature, Colorado State Teacher College.

lege believes that it is better for a fourth grade child to be able to write four simple sentences about a pet dog or making a doll's dress and to arrange them in a logical sequence than to write an incoherent, ungrammatical, unpunctuated, misspelled narrative about the life of the pioneers of Colorado. In other words the College is frankly for accuracy first.

But "accuracy first" does not mean "fluency never." Our plan provides for both types of composition. In the formal language work the assignments call for short pieces of work accurately done; but in the informal work in language, such as is called for in the various individual and group projects in connection with the lessons in literature, history, hygiene, geography, arithmetic, etc., there is ample room for practice upon larger units with more attention to the thing said and less to the details of construction.

#### **Lists of Errors to be Corrected.**

It is the intention of the course to provide for the correction in each grade of a few errors prevalent among the pupils of that grade and others which belong to individual pupils. No lists are given for the different grades because the errors are not known until the teacher actually catalogs them for the grade and for individual pupils. It will be found when such a catalog is made that the list is small and the task of eliminating the errors actually possible. The teacher is warned against the practice of attacking "school ma'am" errors which are not errors at all, such as the correct use of "have got" and the preposition at the end of a sentence. There are enough real errors to engage all the teacher's ingenuity without attacking such fanciful errors such as these which are in good literary usage. The number of real errors will be found to be encouragingly small. If a few are attacked and slain in each grade the language of the pupils will be greatly improved long before the end of the elementary school period. (See Mahoney pp. 13 and 14).

#### **The English Period.**

In all the grades there should be a special period set aside for the language lesson. In this time there should be the assignment and talking over of the topics, the oral telling, dramatizing, etc., the writing, self criticism, revising, etc.—not all in one day, but each in its turn. In the grades above the fourth all this work of oral and written composition should be carried on in connection with the work of the other classes; and every class, positively every one, should be an English class. Constant drill in the use of correct forms and constant correction of all sorts of the errors must be carried on in all the classes of the school day. While it is good for upper grade children to know why a certain form, construction, or punctuation mark is correct so that they may become self-criticizing, it must be remembered that no child ever learned to speak correctly by learning the rules of grammar. Speech-faults must be worn out and correct habits rubbed in.

#### **Copying From the Blackboard and From Dictation.**

Young children should have frequent practice in copying correctly written sentences from the blackboard. Older children should occasionally be given that kind of drill. It makes them conscious of capitals, punctuation marks, spelling, arrangement, etc.

Throuth the grades there should be almost daily opportunity for writing from dictation. This can be done in any class during the school day. It may be done just as well in the history class as in the English. Whenever it is done it should be brief. Exactness should be required. A half sheet of ruled paper, uniform for all the class will be an aid to both pupil and teacher. It will suggest neatness and will encourage by its brevity.

#### **Self Criticism.**

Pupils should be taught to examine all of their writing before it is

handed to the teacher. This applies especially to the short pieces copied from the board or from dictation. Have them read through the sentences first to see that no words have been omitted, second to see that capitals, spelling, and punctuation are satisfactory. Insist on neat, careful, penmanship—the best the pupil is capable of.

#### A Word of Encouragement.

If you are a teacher, you can really teach children to speak and write just as surely as you can teach them the multiplication tables; and you can teach English so that it will stay taught and not have to be done over and over and the never done, as is the usual expectation in the schools.

## First Grade

All of the English work in the first grade is oral. Its purpose is to get from children free expression in correct simple sentences. Eradicating faulty speech habits and preventing the formation of new ones by guiding the child into correct speech ways is a second and equally important purpose.

#### Aims.

1. To encourage children to talk freely about the things they are interested in.
2. To secure distinct articulation and a natural speaking tone.
3. To correct a few errors of speech—those that are simple and the most noticeable.
4. To make a beginning in the conscious use of simple sentences.

#### Means and Ways.

1. Story telling by the teacher—the children getting their use of language through hearing stories told simply, in correct language, and with a careful choice of words.
2. Dramatization of the stories told by the teacher. The pupils' contribution should be in simple sentences. The "and", "so" and "and so" habits should be avoided.
3. Children's "stories". These are used to encourage children to talk simply, freely, and correctly about the things they are interested in.

The typical story is something like this:

Teacher—A vacant lot makes a good playground. What do you like to play?

Harry—I like to play Indian.

Nancy—we like to play house.

John—My brother and I made a cave on a vacant lot.

Teacher—How would you play house on a vacant lot. Tell me three things you did.

Mary—we raked the leaves up in little rows. There were were the walls of the rooms. We found pieces of broken dishes for our table.

#### Topics for Children's Stories.

- a. Home objects and experiences, such as: Playthings, pets, happening, home happenings, anecdotes, good times on holidays and Saturdays.
- b. School objects and experiences, such as: Playmates, playground incidents, the reading lesson, dramatizations, story reproduction, picture lessons.
- c. Flowers, birds, animals.
- d. Lessons in manners.

#### Correction of Childrens' Errors of Speech.

- a. Verb errors, such as: I seen it, I come early yesterday, I done that. She aint comin'.
- b. Pronoun errors, such as: Me and him tried it.
- c. Provincialisms and slang.
- d. Mispronunciations.



### The Use of Word Cards and Sentence Cards.

While there is no writing in the first grade, the children learn to recognize words and the alphabet in script. With these sentences are built, and the child forms the habit of beginning a sentence with a capital letter and closing with a period or a question mark.

Before leaving the grade each child should be able with the alphabet letters to make his own name and address using a comma between the names of the city and state thus:

Alice Martin  
815 Seventh Street  
Greeley, Colorado

Also the habit of using the capital "I" should be fixed, as well as the use of a capital letter at the beginning of the card-constructed sentence, and the period or question mark at the end of a sentence so constructed.

Chubb, *The Teaching of English*, Chapters 3 and 4.

### References.

Mahoney, *Standards in English*, Pages 41 to 50 and 4 to 38.

Sheridan, *Speaking and Writing English*, Pages 51 to 61 and 1 to 46.

Brown, *How the French Boy Learns to Write*, Chapter 3.

## Second Grade

In the second grade the pupil is expected to make a beginning of writing. During the early weeks in this grade the composition is all oral except for a continuation of the card-constructed sentences, such as were used in the latter half year of the first grade. After that the writing of little sentences is begun. This work is continued through the year. At the end of the time each pupil should be able to write simple "stories" composed of from two to five simple sentences each correctly written and all arranged in an orderly sequence. The oral story telling is kept simple also, but the stories may be made up of more sentences than occur in the written.

### Aims.

1. To develop ability in each pupil to construct orally simple stories of five or six related sentences.
2. To give practice in the oral reproduction of short, simple stories told by the teacher.
3. To eradicate a few of the noticeable errors in speech common to this grade.
4. To make a beginning of writing, in the end aiming to secure the skill in each pupil to write from three to five related sentences accurately with respect to capitalization, spelling, and punctuation.

### Means and Ways.

1. Alphabet cards and word cards with which to construct short sentences copied from the blackboard, dictated by the teacher, or made up by the pupil. The use of these cards should be discontinued by the end of the first half of the year—before if the pupils have made sufficient progress in writing.
2. Stories told by the teacher and later retold by the children, the teacher guarding against the habit of "running on" by making use of "and", "so", and "and so" where new sentences should begin. She should see to it that neither she nor the children develop or continue this habit.
3. A continuation of the dramatization of little stories, the object being to get the children interested in thinking of something to say and then to say it correctly.
4. A list of the outstanding errors which the children of this particular grade make and which the teacher is determined to correct during the year.

The tendency will be to take a ready made list from some book,

and to drill all the children on all the expressions. That's the easy way. Do not be tempted. Make your own list. Keep a note book something like the sample below:

**Individual Errors of my Pupils to be Corrected This Year.**

Edmund—I done it, Aint got no, Got it offa him.

Carol—Hadn't ought to, hisself, "would of" fer "would have".

Charles—Knewed, "they was" for "there was" them kind.

Nancy—She do'n't, gimme, "done" for "did".

Keep an account book with a page devoted to each pupil. Cross out an error when it ceases to be used. Occasionally exhibit the book to the pupils.

Make your account book a double entry system. Keep a page for each error that is made by as many as five in the grade, thus:

"done" for "did"

Mary  
Kate  
John  
\*Samuel  
James  
Harry  
\*Nancy

\*Check off a name when ever a pupil conquers that error.

Don't try to make perfect speakers of your pupils in this grade. If you do, they will be perfect because they are not saying anything. Attack from a dozen to twenty errors with the determination that the third grade teacher shall not have those to subdue. She will have others a plenty but not these. Sufficient unto the grade are the errors thereof.

5. **Writing:** The writing consists of simple sentences:

- (a). Copied from the blackboard, (b) written from dictation, and (c). made by the pupil.

The pupils should be taught to examine their own work to see that it is correct before handing it to the teacher. This may be done by comparing it with the teacher's correct copy on the blackboard, first, to see that each sentence begins with a capital letter and ends with a period or question mark; second, that no word has been omitted, and third, that all the words are correctly spelled.

No long narrative is attempted in writing in the second grade. We are content if at the end of the year all the pupils can write correctly a "story" of three, four, or five short, simple sentences.

6. **Technical Items:**

- a. Capitals: At the beginning of a sentence. Names of persons, places, days of the week, the months, and the word I.
- b. Punctuation: Period at the end of a telling sentence and after the abbreviations Mr. and Mrs. Question mark at the close of sentence that asks a question.

**References.**

Brown—How the French Boy Learns to Write, Chapter 3.

Mahoney—Standards in English, Pages 4 to 38 and pages 51 to 61.

Sheridan—Speaking and Writing English, Pages 1 to 46 and pages 61 to 74.

## Third Grade

The composition in the third grade is still largely oral and is still such as would grow naturally out of the child's own experiences. Freedom of expression in correct, simple natural language is the aim of the grade. The campaign against a few errors is carried over from the second grade, with a book account of the progress made by each



pupil against his special errors and by the whole grade against the small list of common errors.

In reading and literature real progress is made in this grade toward a mastery of the technic of reading so that the child begins to get some pleasure out of what he reads in addition to that which comes from mastering the mechanics of reading.

#### Aims.

1. To develop in all the children the power to express themselves simply in natural, clear, correct English.
2. To conquer a few of the errors common to the children of this grade.
3. To teach the spelling of such words as are frequently used in writing in this grade.
4. To make a beginning in the reading of literature which is within the range of comprehension of third grade children.

#### Ways, Means and Materials.

1. Accuracy is the first essential; freedom and fluency are no less essential, but they must not be secured at the expense of accuracy.
2. Language games are still made use of to drill in accurate expression.
3. The means used to give practice in oral expression are:
  - a. Retelling simple stories.
  - b. Telling original stories, using topics and models suggested by the teacher, and also those thought of by the children.
  - c. Relating anecdotes.

In all the work noted above the war against "and", "and so", and "so", "then", and "and then" must be vigorously kept up. Don't overdo it tho, and leave the impression that these are never to be used. This has been done with the word "got". The aim is to get the child to use simple telling, asking, and exclaiming sentences with only the occasional use of the compound sentence. The complex sentence with the relative and adverbial clauses for most children is not natural at this age.

- d. Memorizing verses, and whole poems.
  - e. Making original rhymes and riddles.
  - f. "Stories" growing out of picture study; i. e., three, four, or five related simple sentences about a picture.
  - g. Dramatizations.
  - h. Conversations growing out of the development of projects in history, geography, reading, etc.
4. The means used to give practice in written expression in this grade are:
    - a. Copying from the blackboard and from books single sentences and brief "stories" of from three to five sentences.
    - b. Copying from dictation the same sort of sentences and "stories." This copying (a and b) should be **daily** practice. There is nothing like it to accustom children to the look of correct forms and to the habit of writing neatly and with mechanical accuracy.
    - c. The occasional short written reproduction of stories told in the class—at first copied from the board, and later without this intermediate copying step.

The teacher will find that any device which makes the task of writing seem possible and simple will greatly increase the accuracy of the work. These devices are suggested: 1. Uniform half-sheets of paper, 8x5 1-2 inches, ruled the long way. 2. Stories three to five sentences in length. 3. Self correction, consisting of one look through to see if all the words are there, a second for spelling, and a third for capital letters and punctuation.

All of this formal written work must be read and marked

- by the teacher, but it should be corrected only for the technical matters taught in grades two and three.
- d. Brief letters and invitations with headings and endings copied from models.
  - e. **Technical Items**  
 New abbreviations: Dr. and Colo.  
 New uses of capital letters: At the beginning of each line of poetry.  
 Indentation of a paragraph.  
 Commas in a series of words.  
 Contractions: Don't, doesn't, can't, isn't, I'll, I'm. it's for "it is".  
 Exclamation point at the end of an exclamatory sentence.

#### References.

- Brown—How the French Boy Learns to Write, Chapter 3.  
 Mahoney—Standards in English, Pages 4 to 38 and pages 62 to 72.  
 Sheridan—Speaking and writing English, Pages 1 to 46 and pages 74 to 85.

## Fourth Grade

While the language period is still used, there is less need in the fourth grade and the grades above for a stated period for the language lesson (especially the oral) and a greater need to give attention to language in all the lessons of the day. The language period is retained, however, but may be used when needed for the written work in connection with other lessons, such as history, geography, nature study, etc.

With a growing mastery of the mechanics of reading a wider interest in children's literature itself is possible, but in the fourth grade there is still the problem of actually learning to read well enough that reading itself shall in time cease to be an effort.

#### Aims.

1. To make it possible for each child in the grade to speak his thoughts clearly, in well chosen words, in correct sentences whatever he is thinking that may be worth telling to others.
2. To secure an acceptable and pleasing bearing and manner in speaking, and to cultivate speaking voices that may be heard by all the children in the room without becoming loud, or strained or in any other way unnatural.
3. In oral and written composition to help the children to have something to say and to want to say it rather than merely to be saying something.
4. In the literature to begin to make the pieces of literature sources of pleasure in themselves, beyond the pleasure of conquering the mechanical difficulties of reading.
5. To attack and conquer another group of errors in speech and writing which are either peculiar to this age or which have been left over from earlier grade.

#### Means, Ways and Materials.

In Oral and Written Composition:

1. A continuation of the copying from the blackboard and from dictation. (See directions in Grade three concerning uniform paper, and the pupils' self criticism of his work). Occasionally allow the pupils to write on the blackboard. Visible comparison helps.
2. Picture studies continued.
3. Reproducing, in original language, stories told by the teacher. Telling stories from points of view different from the original.
4. The recitation, oral or written, in every class throughout the day should be regarded as a part of the work in English.
5. Dramatizations.

6. The oral preparation and the writing in connection with working up individual and group projects in history, arithmetic, geography, literature, etc.
7. Letter writing. Forms for addressing an envelope. Informal friendly letters. Invitations. Simple business letters. Real problems are used as the basis of all the letter writing.

#### Technical Items.

1. The apostrophe and s with singular nouns to denote possession.
2. Other contractions in addition to those indicated in grade three as need for them arises.
3. How to find the meaning and correct spelling of words by using the dictionary. Dictionary games.
4. No new uses of punctuation in addition to those shown in earlier grades.

#### References:

- Brown—How the French Boy Learns to Write, Chapter 3.  
 Mahoney—Standards in English, Pages 4 to 38 and pages 73 to 89.  
 Sheridan—Speaking and Writing English, Pages 1 to 46 and pages 86 to 96.

## Fifth Grade

A definite time is still set aside in the program of the fifth grade for oral and written composition, but every piece of spoken English in every class is English work and every piece of copying from dictation, copying from the blackboard or original writing is written English. In this way the items enumerated below are covered. In language the teacher will use the geography material one day for the idea upon which to base the written language paragraph, another day upon nature study, another upon history, etc.

1. Picture study.
2. Story telling.
3. Dramatization.
4. The writing of business and friendly letters, and of informal social notes.
5. Descriptions of persons, places and things.
6. Giving directions.
7. Expressing a thought in different ways.
8. Writing biographical sketches.
9. Copying from dictation.

#### Additional Technical Items.

1. The use of the complex sentence and the punctuation appropriate to that type of sentence.
2. The writing of conversation and the use of quotation marks.
3. The conquest of a group of speech-faults belonging to the pupils of this grade.

#### Grammar.

Thruout the grades from the fifth upward reasons are given when corrections are made and the grammatical terms are freely used where explanations are made.

No systematic teaching of grammar is attempted, but incidentally all the facts of grammar that have any useful bearing upon children's speech will be covered in a reasonable length of time.

#### References.

- Brown—How the French Boy Learns to Write, Chapter 3.  
 Mahoney—Standards in English, pages 4 to 38 and pages 90 to 103.  
 Sheridan—Speaking and Writing English, pages 1 to 46 and pages 97 to 109.

## Sixth Grade

The same procedure is followed in the sixth grade as has been suggested for the fifth. It must not be supposed that there is no systematic language study in these grades. The systematic direction of speech and writing is relentless, never-ending. It must go on in every class, every day.

### Grammar.

By the time the pupil has reached the end of the sixth grade he should have met every functioning grammar-fact. He should have had all his English "why's" explained in terms of grammar. He should have met all the parts of speech and should know their functions, and should also be able to recognize the parts of any type of sentence so as to analyze it without going into minute details.

### Punctuation.

At the end of the sixth grade the pupil should be accurate in the ten or a dozen uses of the comma and semicolon that occur in ordinary writing. These are:

1. The use of the comma in writing an address and in the formal parts of a letter.
2. The comma to separate the clauses of a compound sentence when these are joined by **and**, **but**, **for**, and **or** and **nor**.
3. The comma to separate words, phrases, or clauses arranged in a series.
4. The comma to set off appositives.
5. The comma to set off the adverbial clause in a complex sentence when it precedes the main clause.
6. The use of commas to set out a semi-parenthetical expression.
7. The use of commas to set out non-restrictive clauses.
9. The semicolon to separate the clauses of a compound sentence when no conjunction is used.
10. The semicolon to separate the parts of a compound sentence joined by a conjunction if either of the parts has a comma within itself.
11. The semicolon to separate the parts of a compound sentence whenever one of the conjunctive adverb happens to be the first word of the second clause, and as **however**, **therefore**, **nevertheless**, **moreover**, etc.

### Paragraphs and Whole Compositions.

Beginning in the fifth grade and continuing through the sixth systematic instruction should be given in the construction of simple paragraphs and the arrangement of two to five of these into a logical whole composition. The technical study of the paragraph should not be undertaken at all in the elementary school. All that the elementary school pupil needs to know about a paragraph is that it is a group of sentences arranged in a logical order each sentence of which says something about the one thing of which the paragraph treats.

### References.

Brown—How the French Boy Learns to Write, Chapter 3.

Mahoney—Standards in English, pages 4 to 38 and pages 104 to 119.

Sheridan—Speaking and Writing English, pages 1 to 46 and 109 to 120.

## Seventh Grade

In the first half of the seventh year the procedure for oral and written English is a continuation of that of the sixth grade. Every class is a language class. Every piece of formal written work is English composition, to be prepared as such and marked as such. The war against speed-faults is kept up with a new catalog of the

errors of this grade and these individuals. If the teachers in the lower grades have done their duty, there should be pupils in the seventh grade whose place in the account book is a clean page. But with the shifting of the school population, and new pupils coming into each grade, who have not been in the school before, the teacher will find always that the work of correction must go on. She will never need to sigh in vain for other errors to conquer.

### Grammar.

The grammar for the first half of the year is incidental, and consists mainly in the rough analysis of sentences to determine what form is correct when the pupils are in doubt about what to say. This should be done over and over, week after week, until each child can test for himself the function of any word, phrase, or clause he is using in his own speaking and writing. This is never the minute hair-splitting and logic chopping of the old grammar, but merely an inquiry into the function of a word, phrase or clause whenever a doubt arises about what to say. For example, shall I say, "Father" expects Mary and I (or Mary and me) to meet him at four o'clock." The objective form is used after a transitive verb. Therefore, I should say "Mary and me."

When the child reaches the second half of the seventh year he should be taught in an ordered series of lessons and in a special period for grammar all the grammar facts that actually assist one in determining how he should speak and write or help him to judge the correctness of what he has already said or written. All these facts have already come to the child incidentally in the grades below the seventh. Here the purpose is to review them through a new intensive teaching of the facts arranged in a logical order. By cutting out every item of grammar except those that function in shaping the child's speech and writing the whole matter can be reduced to an easy half year's work, and it can be taught so that it will actually be done and usable when the class finishes the study.

### Punctuation.

Insist upon the pupils using the simple working punctuation marks as systematically and accurately as they use their knowledge of capital letters or spelling.

### Paragraphs and Whole Compositions.

See the instruction under the Sixth Grade section of this course.

### References.

Brown—How the French Boy Learns to Write, Chapter 3.

Mahoney—Standards in English, pages 4 to 38 and pages 120 to 135.

Sheridan—Speaking and Writing English, pages 1 to 46 and 120 to 132.

## Eighth Grade

The procedure in the eighth grade is the same in all points as in the seventh. In the final third of the year there should be a quick, snappy review of the functional grammar that occupied the last half of the seventh year. No new material is introduced nor any new complexities in the paragraph, punctuation, grammar or anything else. Practice for quality is now the aim.

### References.

Brown—How the French Boy Learns to Write, Chapter 3.

Mahoney—Standards in English, pages 4 to 38 and pages 136 to 156.

Sheridan—Speaking and Writing English, pages 1 to 46 and pages 132 to 145.

## General Bibliography

- Bonser—The Elementary School Curriculum, Chapter 13.  
Bolenius—The Teaching of Oral English.  
Brown—How the French Boy Learns to Write.  
Carpenter and Baker—The Teaching of English in the Elementary and Secondary School.  
Chubb—The Teaching of English.  
Cooley—Language Teaching in the Grades.  
Deming—Language Games for all Grades.  
Kendall and Mirick—How to Teach the Fundamental Subjects, Chapter 2.  
Leifer—Language Work in Elementary Schools.  
Mahoney—Standards in English, pages 1 to 40 and pages 177 to 193.  
Sheridan—Speaking and Writing English, pages 1 to 50 and pages 144 to 153.

## Scales for Measuring Results of English Teaching

1. The Nassau County Supplement to the Hillegas Scale, Teachers College Publications, Columbia University, New York.
2. The Harvard-Newton Composition Scale.
3. Willing's Composition Scale for Measuring Written Composition, Bureau of Educational Research, Urbana, Illinois.
4. Charters' Diagnostic Test in Language and Grammar for Pronouns, Bureau of Educational Research, Urbana, Illinois.
5. Charters' Diagnostic Language Tests, Bureau of Educational Research, Urbana, Illinois.
6. Starch, Punctuation Scale, University of Wisconsin.
7. Trabue, Language Completion Tests, Teachers College Publications, Columbia University, New York.

# CIVICS\*

## First Grade

1. Aims in teaching:
  - a. To teach children an appreciation of dependence upon parents; what parents do for them.
  - b. To show children what they can do to help parents and others.
  - c. To teach children to keep clean and well by exercising simple health rules, such as those concerning fresh air, food, clothing, exercise, sleep, care of the skin, hair, eyes, teeth, nose and ears.
2. Outline of material—The family is the basis for the work, with the following subjects included:
  - a. Duties of parents: love, protection, support, and regulation of the home.
  - b. Duties of children: love for one another, kindness, respect, gratitude, good conduct, obedience, honesty, ownership, generosity, loyalty, and patriotism.
  - c. Health of the family: food, clothing, exercise, sleep, care of the eyes and the ears, cleanliness of skin, hair, and teeth.
  - d. Special community service of the family: war savings stamps; recognition of any special interest which may develop.
3. Procedure: In the early grades not much time need be given directly to this work. The greater part of it may be accomplished through correlation with other subjects. Talks and stories are the direct efforts.
4. Bibliography—Other subjects in the course of study furnish material.
  - a. Texts for the teacher:

Dealey, J. Q., *The Family in Its Sociological Aspects.*  
Gillette, J. M., *The Family and Society.*  
Cabot, E., *Ethics for Children.*  
———, *A Course in Citizenship. Material for grade one.*  
Allen, W. H., *Civics and Health.*
  - b. Stories for children; some selections classified:

The Family.  
    The Fairy Who Came to Our Home, in *For the Children's Hour*, Bailey.  
    Little Red Riding Hood.  
    Why Tony Bear Went to Bed.  
    Grandfather.

Love.  
    The Hidden Servants, in *Stories to Tell Children*, Bryant.  
    The Selfish Giant.Support.  
    The Little Red Hen, in *Stories to Tell Children*, Bryant.Obedience.  
    Raggylug, in *How to Tell Stories to Children*, Bryant.  
    Little Half Chick.Cleanliness.  
    The Pig Brother, in *Stories to Tell Children.*Helpfulness.  
    Why the Morning Glory Climbs, in *How to Tell Stories to Children.*  
    Why the Chimes Rang.

\*This outline is taken from "The Teaching of Civics," Edwin B. Smith, Colorado State Teachers College, Greeley, Colorado, Bulletin No. 10.



- The Little Hero of Harlem.  
 Kindness.  
 Why the Evergreens are Always Green, in Stories to Tell Children.  
 Wheat Fields, in For the Children's Hour, Bailey.  
 Honesty.  
 Honest Woodman, in Child's World, Poulsson.  
 The Boy and the Wolf.  
 Gratitude.  
 The Elves and the Shoemaker, in Stories to Tell Children.  
 How Patty Gave Thanks, in Mother Stories, Lindsay.  
 Good Conduct.  
 The Gingerbread Boy, in Mother Stories.  
 Patriotism.  
 Betsy Ross and the First Flag, in For the Children's Hour.

## Second Grade

1. Aims in Teaching:
    - a. To help children to appreciate their relations to the several social groups
    - b. To show dependence of the individual upon the group.
  2. Outline of material—The general subject is the home studied with relation to:
    - a. Cleanliness in and about the house: floors, windows, toilet, bath, fresh air, garbage, gardens, and yards.
    - b. Community service for the home: food, clothing, shelter, water, electricity, telephone, etc., as suggested by the grocer, milkman, and others.
    - c. Home service for the community: care of the home and surroundings, complying with requirements relative to health and other community relations.
    - d. Special community service in the home: conservation of food, war savings stamps, liberty bonds, and contributions for relief purposes; also any new interest that may develop in the reconstruction.
  3. Procedure: In this grade the practices of the first grade are continued; that is, the subject is taught largely through correlation with other subjects. Talks and stories are continued.
  4. Bibliography.
    - a. Texts for the teacher:
 

Allen, W. H., Civics and Health.  
 Cabot, E. L., A Course in Citizenship.  
 \_\_\_\_\_Ethics for Children.—  
 Dunn, A. W., Community Civics.  
 (See Bibliography in Grade I.)
    - b. Stories for children:
 

The Home.  
 How the Home Was Built, in Mother Stories, Lindsay.  
 The Little Gray Grandmother, in For the Children's Hour.  
 Bailey.
- Helpfulness.
- How the Crickets Brought Good Fortune.  
 The Stone in the Road.  
 The Cock, the Mouse and the Little Red Hen.  
 The Little Brown Lady.
- Generosity.
- The Story of Midas, in Stories to Tell Children, Bryant.  
 The Little Boy Who Had a Picnic.  
 The Little Old Man and His Gold.  
 The King of the Golden River.



Love for Animals.

Hiawatha's Childhood, Longfellow.

Dick Whittington and His Cat, in Tell Me Another Story, Bailey.

Selfishness.

The Queer Little Baker Man, in Stories Children Need, Bailey.

The Cooky.

The Legend of the Woodpecker, in For the Children's Hour.

The Coming of the King.

Bravery.

The Eyes of the King, in Story Telling Time, Bailey.

Patriotism.

How Cedric Became a Knight, in For the Children's Hour.

Little George Washington.

Co-operation.

How Nice It Would Be, in Stories That Children Need.

The Story of the Pink Rose, in How to Tell Stories to Children.

The Old Woman and Her Pig.

## Third Grade

1. Aims in Teaching:
  - a. To create an appreciation of what the school does for the child; to stir in the child an appreciation of the values of cooperation, mutual service, and community interest.
  - b. To create good citizens through instilling proper regard for the neighborhood; to encourage a desire to improve the community.
2. Outline of material—The school and the neighborhood are considered with respect to the following:
  - a. The school: purpose, buildings, rules governing, sanitation, exercise and play.
  - b. The neighborhood; traffic regulations, street cleaning, removal of garbage, lighting, parks, occupations and industries of the community.
  - c. The school and the community: thrift campaigns, liberty bonds, conservation of food, military education, occupations in the community concerned with the reconstruction interests.
3. Procedure: The work may be given indirectly by correlating with other subjects; it may receive attention directly through some periods being given to it each week. Talks and stories may be continued.  
Observation and excursions.
4. Bibliography.
  - a. Texts for the teacher:  
City Laws and Ordinances.  
Gulick, L. H., Town and City.  
Allen, W. H., Civics and Health.  
Ayes, M., Williams, J. F., and Wood, T. D., Healthful Schools.  
Dunn, A. W., Community Civics.  
Beard, C. A., American City Government.  
Howe, F., The Modern City and Its Problems.  
United States Bureau of Education Bulletin No. 17, 1917.  
Civic Education in Elementary Schools.
  - b. Stories for children: (See bibliography in Grade II.)

## Fourth Grade

1. Aims in Teaching:
  - a. To show the service which the city renders the citizen.
  - b. To make clear the value and the necessity for cooperation of the citizens in furthering the welfare of the community.
2. Outline of material—The life in the community and some of the problems associated with the home:
  - a. Food supply: markets, dairies, prices, and inspection.
  - b. Water supply: source of supply, purity, and cost.
  - c. Housing: building laws, lighting, cleanliness, ventilation, sewerage, gas, and electricity.
  - d. Fire protection: fire company, fire escape, origin of fires, and prevention of fires.
  - e. Police department: duties of the policemen, relation of the citizen to the policeman.
  - f. Health department: inspection of supplies, quarantine, education of the public.
  - g. Community activities affecting the home: increase in cost of living due to the war, the food supply as affected by the war, the changing source of supply, limitations on the quantity of food available. The subjects mentioned in the other grades may be continued.
3. Procedure: The practice still may be largely indirect. Correlation with other subjects aids. The more direct teaching of the subject may be practiced. Contact with the various interests of the community should be held by trips to investigate them.
4. Bibliography.

City Laws and Ordinances.  
Gulick, L. H., Town and City.  
Allen, W. H., Civics and Health.  
Denison, E., Helping School Children.  
Hughes, R. O., Community Civics.  
(See Bibliography for Grade III).

## Fifth Grade

1. Aims in Teaching:
  - a. To help the children appreciate themselves members of the political groups that do work for them.
  - b. To encourage a community interest in keeping the streets, the school yard, and the neighborhood generally clean.
  - c. To teach the children to appreciate the purpose of the police.
  - d. To show the children how they may cooperate with the fire department in preventing fires.
  - e. To show the children that there are various ways of cooperating with and sacrificing for the good of the community, which means in reality the good of the individual citizen.
2. Outline of material—Life in the community outside of the home, with some of its relations; such as:
  - a. The cleanliness of the streets: means for cleaning the streets—sweeping, hose flushing, vacuum cleaning; removing ashes, garbage, and snow; and the disposal of waste.
  - b. Protection by the police department: duties of the department—protecting life and property, prevention of crime, regulation of traffic, keeping order; attitude of the citizens toward the police; and the protection which is desirable.
  - c. Fire protection: equipment, members of the department, finances, cooperation of the citizens—fire prevention; fire alarm boxes and hydrants; fire drills in schools.

- d. Recreation and community improvement: parks—location, uses, support; playgrounds, schoolyards, gymnasiums, theater and moving pictures, and concerts for the public.
  - e. Current community activities: previously mentioned interests may be continued.
3. Procedure: While much of the interest of the civics work in this grade finds expression incidentally, more time should be given to direct teaching of the principles of good citizenship.
4. Bibliography.
- United States Bureau of Education, Bulletin No. 23, 1915, The Teaching of Community Civics.  
 Department of Public Instruction, Colorado, War-modified Course of Study.  
 Gulick, L. H., Town and City.  
 Field, J., and Nearing, S., Community Civics.  
 Hughes, R. O., Community Civics.  
 Beard, C. A., American City Government.

## Sixth Grade

1. Aims in Teaching:
- a. To teach the forms of government, its agencies and functions.
  - b. To show children how the government serves community interests and the interests of the children; and how the government is dependent upon individuals in promoting its best interests and operation.
2. Outline of material—The work of the grade centers around the necessity for government, the relations between government and the citizen, and the government of the local community.
- a. As a preparation for understanding government, consider the government in the home, the school, the playground, and the clubs.
  - b. The privilege of voting and its responsibilities; methods of voting in the past and at present; majority rule and political parties.
  - c. Services of the community to the citizen through the organization of the city, the state, and the nation:
    - (1) The local community serves the citizen by providing for protection of health, care of property, and education.
    - (2) The state serves the citizen by aiding in the construction of roads, by controlling the use of alcoholic liquors, and by providing for general education.
    - (3) The nation serves the individual by carrying the mails, by operating the railroads and telegraphs, and by providing for the rights of citizenship.
  - d. The duties of the citizen to the communities which serve him: obedience to law, honest voting, payment of taxes as provided by law, and response to any call of the community for service.
  - e. Organization of the local government.
  - f. Services of the local government for the citizen.
  - g. Comparison of local government with other forms of government: The commission form of government of cities, the city manager type, European government for cities (some type forms).
  - h. Special organizations within the city to meet temporary

needs such as the council of defense, the food administration, the home service section of the Red Cross, etc.

3. Procedure: In this grade as in the preceding one, the work is done by means of formal study of problems; it is also accomplished by observation and investigation by the children themselves.
4. Bibliography.  
City Charter, Laws and Ordinances.  
Gulick, L. H., Town and City.  
Munro, W. B., The Government of European Cities.  
Dunn, A. W., Community Civics.  
(See bibliographies for grades IV and V).

## Seventh Grade

1. Aims in Teaching:
  - a. To show the relation of the local government to the state.
  - b. To teach an appreciation of the relations of the individual citizen to the state government.
2. Outline of material—The general subject is the people living under state government.
  - a. The government of Colorado.
    - (1) Division of powers between state and local government; county government and city government.
    - (2) The suffrage.
    - (3) Political parties and party platforms.
    - (4) Conduct of elections.
    - (5) The departments of government and the relations of the citizen to them.
    - (6) Direct participation of the people in government as expressed by the initiative, referendum, recall, and recall of judicial decisions.
    - (7) The place of public opinion.
    - (8) Education provided by the state.
  - b. Services of the state for the citizen: protection and liberty freedom of speech and of religion, good roads, care of health provision for education, and industrial and social legislation.
  - c. Obligation of the citizen toward the state: financial support, respect for laws, intelligent interest in the issues effecting the interests of the people of the state, earning an honest living, and the care of one's health.
  - d. Special organizations within the state to meet temporary needs, such as the state council of defense, food administration, state constabulary, etc.
3. Procedure: The work of the year centers around problems whose solution cultivates the civic qualities in children which are desired in citizens.
4. Bibliography.  
Hughes, R. O., Community Civics (excellent text for the grade).  
Hatch, D. R., Civil Government of Colorado, 1917 edition; Statutes of Colorado.  
Material published by the state government: Reports of bureaus and commissions, reports of departments, etc.  
Holcombe, A. N., State Government in the United States. A college text of value for the teacher.

# Geography

In adjusting his life to his physical environment man has accumulated much knowledge about the resources and conditions of the earth which make them of most use to him. Progress has depended much upon the adjustment man has made to these earth controls. Geography is made up of this useful body of experience in discovering the resources of the earth and in discovering and inventing way to use them.

In the geography for the elementary school, selection is necessarily limited to those elements most useful in understanding our relationships to the various regions of the earth and to the peoples of those regions.

The earth contains a wealth of natural resources, but it imposes certain unchangeable conditions under which these resources may be made available. Man must discover these resources and adjust himself to the conditions under which they may be used before he can benefit by them. He finds coal in some regions; he mines it and distributes it as it is needed. Cotton grows well in some regions only; enough must be grown in these regions to supply the needs of all. Some climates are cold; man adjusts himself to their rigor by the use of proper food, clothing, and shelter. Rainfall is insufficient for agriculture in some regions; man resorts to irrigation and reclaims some of these regions. Routes of travel follow waterways or land formations offering least resistance. People make their home where conditions offer the most favorable opportunities for living. The surplus produced in one region is exchanged for the surplus different in kind from other regions. To some regions many people are attracted by climatic conditions or by the properties of water particularly favorable to health. Numerous mountains, gorges, waterfalls, forests, and other land and water forms are visited because of their peculiar beauty or grandeur or other unusual character. Everywhere man's life is a response to the controls of climate, distance, and possibilities of exchange and travel, determined by the very nature of the earth. Geography furnishes us the results of man's experience in making these responses or adjustments. For the elementary school, those elements must be selected which most clearly have to do with the everyday life needs of all.

## THE USES OF GEOGRAPHY—

Th study of geography yields two kinds of information, practical and interpretative.

Practical knowledge as applied to agriculture, mining, and industries using immediately available raw materials, has to do with local resources, climatic controls, and market facilities. For trade and transportation the practical knowledge required is that of sources of surplus raw materials, centers of industrial production, markets, trade customs, and routes and conditions of transportation. For travel as recreation the practical knowledge needed is that of interesting features of climate, land and water forms, plant and animals life, and of the life and work of peoples of different regions of the earth. Such information is called practical because it is directly helpful in determining the action of those engaged in any of those pursuits of business or pleasure.

Interpretative knowledge is that which provides an understanding of the dependence of man upon earth resources and the relationships among peoples in making these resources available. All of that information which is practical is at the same time interpretative. But there is much contributed by geography study which is not directly practical in the sense in which the term is here used. Such studies include information concerning the sources of the various products which we use but do not produce, the routes of travel by which they come to us, the markets to which our surplus products go and the routes by which they go, the earth conditions which make these differences in production and which determine methods of transportation, and the life condi-

tions, occupations, recreations and characteristics of the peoples living in those regions distant from us yet related to us by exchange of products and often in many other ways. Interpretative values lie also in knowledge of the earth controls that have determined much in the acts of historic peoples who have contributed to the development of the race and through which we are helped to understand the life currents of our own time. All interpretative knowledge is social in character, helping us to a fuller appreciation of human interdependence. Geography helps us to realize how we ourselves are living more comfortably and happily because of the products we receive from the work of others in all parts of the world, and how our products in turn are useful to many of them. Not only is this true of material commodities of exchange, but also of much in music, art, literature, and other forms of recreation which we interchange.

## Third Grade

The purpose of the study of geography in the Third Grade is to arouse in the child an interest in people and things and to develop a consciousness of inter-dependencies and relationship, of communities upon one another and to give the children experiences to serve as a foundation to build upon in later grades rather than to teach specified geographical facts. The history is so interwoven with the geography that the geography furnishes the background of the history work and community civics that is given.

(In correlation with Nature Study)

- I. Study of
  - A. Local weather conditions.
  - B. Incidental work on wind, temperature, length of day.
  - C. Making of weather charts.
- II. Study of
  - A. Directions.
  - B. Use of globes and maps to locate places.
  - C. Land and water masses.
  - D. Mountains, valleys, plains, plateaus, deserts.
  - E. Rivers.
- III. Study of Colorado.
 

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| <ol style="list-style-type: none"> <li>A. Location.</li> <li>B. Characteristic features.               <ol style="list-style-type: none"> <li>1. Surface.                   <ol style="list-style-type: none"> <li>a. Mountains.                       <ol style="list-style-type: none"> <li>1. Rocky Mts.</li> <li>2. Pikes Peak.</li> <li>3. Longs Peak.</li> <li>4. Mt. Holy Cross.</li> </ol> </li> <li>b. Canyons, gorges.</li> <li>c. Valleys.                       <ol style="list-style-type: none"> <li>1. San Luis</li> </ol> </li> <li>d. Deserts.                       <ol style="list-style-type: none"> <li>1. Colorado.</li> </ol> </li> <li>e. Plains.</li> <li>f. Plateau.</li> <li>g. Continental Divide.</li> <li>h. Rivers.</li> </ol> </li> <li>C. Industries.               <ol style="list-style-type: none"> <li>a. Agriculture.                   <ol style="list-style-type: none"> <li>1. Irrigated farming.</li> <li>2. Dry farming.</li> </ol> </li> <li>b. Sugar beet industry.</li> <li>c. Fruit raising.</li> <li>d. Mining.</li> <li>e. Manufacturing.</li> <li>f. Stock raising.</li> </ol> </li> </ol> </li></ol> | <p style="text-align: center;">Problem Method of Attack.</p> <ol style="list-style-type: none"> <li>1. Little Journeys to               <ol style="list-style-type: none"> <li>a. Pikes Peak.</li> <li>b. Longs Peak.</li> <li>c. Mt. Holy Cross.</li> <li>d. San Luis Valley.</li> </ol> </li> <li>2. By means of               <ol style="list-style-type: none"> <li>b. Pictures.                   <ol style="list-style-type: none"> <li>a. Sand table.</li> <li>c. Post Cards.</li> <li>d. Projectoscope.</li> <li>e. Stereoptican.</li> <li>f. Lantern.</li> </ol> </li> </ol> </li> </ol> <p style="text-align: center;">Problem Method of Attack.</p> <ol style="list-style-type: none"> <li>1. Life of a Dry Farmer.</li> <li>2. Life on an irrigated farm.</li> <li>3. Life in a mining camp.</li> <li>4. Life of a cow-boy.</li> </ol> |
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1. Cattle.
  2. Sheep.
  3. Hogs.
  4. Goats.
  - g. Fish hatchery.
- V. Means of Transportation.
- A. Old Trails.
    - a. Santa Fe.
    - b. Major Longs.
    - c. "Switzerland Trail".
    - d. Trail between Ft. Union & Ft. Laramie
  - B. Railroads.
- VI. Important Cities.
- VII. Summer Resorts and Health Resorts.
- A. Rocky Mt. National Park.
  - B. Estes Park.
  - C. Colorado Springs.
  - D. Manitou.
  - E. Place Sanitarium (Boulder).
  - F. Pagosa Springs.
  - G. Idaho Springs.
  - H. Mineral Springs.
  - I. Soda Springs.
  - J. Hot Springs.
    - Cottonwood.
    - Poucha.
    - Princeton.
  - K. Ward and Eldom.
- Use of the sand table, maps, small globes, large globes, folders, pamphlets, reference books and stories, lantern slides, pictures, post cards and field trips will be important in teaching the geography.
- The excursion, field trips, pictures and stereoptican lantern and projectoscope will be the means of presenting the subject matter.

## Fourth Grade

Beginning with the home state of the child the work is extended to its neighboring states and section, then to the Pacific section the southern section, Central States, Middle States and then New England States, thus giving the child a general knowledge of the United States. This work is developed through studying the industrial, social, civic and political conditions in each section. Conditions are created so as to stimulate the child's thinking by the problem method of attack, as for example, ("How is it possible for the United States to send so much wheat to other countries?") from which the subject is developed.

### Plateau States

- I. Surface and General Appearance.
    - A. Characteristic features.
      1. Mountains and Plains.
      2. Mountain streams, rivers, lakes.
      3. National Parks, forest reserves, canyons, etc.
    - B. Soil.
  - II. Climate.
    - A. Distinctive features.
      1. Altitude—atmosphere.
    - B. Weather.
      1. Rainfall.
      2. Sunshine.
    - C. West compared with East.
    - D. Health resorts.
- Problem Method of Attack.
1. How did the climate impress the settlers?
  2. How does the climate impress tourists of today?

III. Plant and Animal Life.  
(correlation with Nature Study)

- A. Plant.
1. Grasses, cactus, sage-brush, russian thistle, etc. Problem Method of Attack.
  2. Common flowers. 1. Planning a hunting trip.
  2. Common flowers. 2. Laws protecting wild animals.
- B. Animal life.
1. Common animals, Prairie dog—etc.
  2. Wild life in the mountains, Mountain sheep, antelope, bear, etc.
  3. Common birds—magpie, house finch, mountain blue jay, grosbeak, etc.

- IV. Population. Problem Method of Attack.
- A. Census statistics. 1. The early settlement of Denver, Colo. Springs, Pueblo, Greeley.
- B. People. 2. Why did the early settlers select these places?
1. Natives—Indian tribes.
    - a. Pueblo Indians.
    - b. Sioux, Cheyenne, Comanches, Arapahoes, Kiowas.
  2. Foreign elements—mining districts, sugar beet districts, etc.
  3. White settlers—from the East.

- V. Industries Problem Method of Attack
- A. Agriculture 1. The advantages of irrigation.
1. Irrigation and dry farming 2. What are the advantages of sugar beet industry in Greeley?
  2. Sugar beet
  3. Potato 3. To what points are most of the Greeley potatoes shipped?
  4. Beans—peas
- B. Fruit raising
- C. Cattle raising
- D. Sheep raising
- E. Mining

Gold—Study of Cripple Creek  
 Silver—Study of Aspen  
 Lead—Study of Leadville  
 Tungsten—Study of Netherlands  
 Coal—Study of Trinidad  
 Radium—Study of Vanadium  
 (The Chamber of Commerce in each of these towns will gladly send literature).

- F. Smelting Cement—Study of Portland
- G. Granite industry Sugar—Study of Greeley and Brighton.
- H. Cement making
- I. Salt mining Flour—Study of Longmont
- J. Manufacturing Pottery—Study of Colorado Springs
- K. Fish hatchery Condensed and Malted Milk—Study of Fort Lupton
- L. Canning vegetables
- M. Pickle industry
- N. Marketing

**Rocky Mountain Section and Pacific Section**

- VI. Railroads Problem Method of Attack
- I. Surface 1. A trip over the Royal Gorge
- A. Characteristic features N2. Mountain Passes, Platte Canon, etc.
1. Mountain ranges—Sierra
  2. Coast ranges—Cascade
  3. Great Valleys 3. The building of the Union Pacific
  - Yosemite



- San Luis  
San Joaquin  
Willamette
3. Plateaus
  4. Crater Lakes
  5. Rivers
4. How does the scenery along the U. P. compare with the other Railroads in Colorado?
- Problem Method of Attack
1. A trip to these various points of interest.
  2. Follow same method as suggested in Third Grade under III. (Study of Colorado)
- B. Comparison with Pacific Slope  
C. Density of forests—forest reserves.
- II. Climate
- A. Altitude
  - B. Rain falls and temperature
  - C. Contrast—Mildness of climate of Pacific Section with Rocky Mountain Section.
- III. Industries
- Problem Method of Attack
- A. Fruit raising
    1. In California
 

San Joaquin Valley  
Southern California  
Salt River Valley,  
Arizona
    2. Contrast with Florida and Colorado
 

B. Lumbering  
C. Agriculture

Wheat  
Cotton, etc.  
Gold

D. Silver  
Lead

E. Fish Industry
 

Catalina Island Fish  
Salmon—Columbia River

F. Seaweeds—Kelp

G. Manufacturing
 

Condensed Milk  
Lumber  
Flour

H. Irrigation  
I. Smelting  
J. Commerce
- IV. Spanish Missions
- A. Where located  
(See History outline)
  - B. History of them taken in history work.

### Central States

- I. Surface and Central Appearance
- A. Characteristic features
- Problem Method of Attack
1. Rivers, Great Lakes
  2. Plains, Prairies, uplands
  3. Forests
  4. Soil
1. Advantages and disadvantages over these of the western states.
  2. Relation of man to land forms.
  3. Relation of man to climatic conditions.
  4. Relation of man to vegetation and animal forms.

- II. Climate
  - A. Distinctive features
    - 1. Altitude—atmosphere
  - B. Weather
    - 1. Rainfall
    - 2. Sunshine
  - C. Compare with West
  - D. Summer Resorts
- III. Plant and Animal Life (Correlate with Nature Study)
  - A. Plants
    - 1. Grasses—weeds that are a pest, as the Canadian thistle.
    - 2. Common wild flowers
  - B. Animal life
    - 1. Common animals
- IV. Industries
 

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| <ul style="list-style-type: none"> <li>A. Agriculture               <ul style="list-style-type: none"> <li>Grains</li> <li>Cotton growing</li> <li>Tobacco</li> <li>Truck farming</li> </ul> </li> <li>B. Fruit raising               <ul style="list-style-type: none"> <li>1. Apples, berries, peaches, pears, cherries, etc.</li> </ul> </li> <li>C. Dairying               <ul style="list-style-type: none"> <li>butter</li> <li>cheese</li> </ul> </li> <li>D. Lumbering</li> <li>E. Meat Packing</li> <li>F. Mining—Iron, copper, petroleum, natural gas, lead, zinc, coal.</li> <li>G. Quarrying</li> <li>H. Manufacturing               <ul style="list-style-type: none"> <li>1. Lumber</li> <li>2. Flour</li> <li>3. Iron, steel</li> <li>4. Furniture</li> <li>5. Leather</li> <li>6. Cement</li> </ul> </li> <li>I. Commerce               <ul style="list-style-type: none"> <li>1. Transportation</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Problem Method of Attack               <ul style="list-style-type: none"> <li>1. Life on a Corn Farm in the Middle West.</li> <li>2. Life on a Wheat Farm in Kansas</li> <li>3. Life on a Dairy Farm in Wisconsin</li> <li>4. Life on a Fruit Farm in Michigan</li> </ul> </li> </ul> |
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- V. Important Cities
 

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| <ul style="list-style-type: none"> <li>1. Transportation</li> </ul> | <ul style="list-style-type: none"> <li>Problem Method of Attack               <ul style="list-style-type: none"> <li>1. Life of a Sailor on the Great Lakes.</li> <li>Life in Chicago, Detroit, Milwaukee, St. Louis.</li> </ul> </li> </ul> |
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### Middle Atlantic

- I. Location and position of States
  - A. Boundaries
- II. Surface and General Appearance
 

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| <ul style="list-style-type: none"> <li>A. Mountains               <ul style="list-style-type: none"> <li>1. Adirondacks</li> <li>2. Appalachian                   <ul style="list-style-type: none"> <li>a. White Mts.</li> <li>b. Green Mts.</li> <li>c. Blue Ridge</li> <li>d. Great Smoky Mts.</li> </ul> </li> </ul> </li> <li>B. Plains, plateaus, hills, valleys               <ul style="list-style-type: none"> <li>1. Coastal plain</li> <li>2. Piedmont Belt</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Problem Method of Attack               <ul style="list-style-type: none"> <li>1. Comparison with Rocky Mts.—Advantages and disadvantages.</li> </ul> </li> <li>Comparison with plateaus in the Rocky Mountains.</li> </ul> |
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- 3. Delaware Water Gap
- 4. Mohawk Valley
- 5. Hudson Valley
- C. Forests
- D. Coastline
- E. Rivers, lakes, bays, waterfalls and rapids
  - 1. Connecticut, Merrimac, Penobscot, St. Lawrence, Hudson, Alleghany and Susquehanna rivers, etc.
  - 2. Lakes Erie and Ontario
  - 3. Lake Champlain and many smaller lakes.
  - 4. Chesapeake Bay
  - 5. Comparison with bays of the West.
  - 6. Massachusetts — Boston Harbor
  - 7. New York Bay and Harbor
  - 8. Long Island Sound
  - 9. Many good Harbors along the coast.
- F. Ocean
  - 1. Atlantic
- G. Soil
- III. Climate
  - A. Rainfall
  - B. Snows
  - C. Severe Winters, mild summers
  - D. Temperature
- IV. Characteristic Products
  - A. Grains
  - B. Fruits
    - 1. Berries and small fruits (cranberries)
    - 2. Orchard fruits
    - 3. Grapes
  - C. Fish
    - 1. Oyster, cod, mackerel, etc.
  - D. Cattle, sheep
  - E. Minerals
    - 1. Coal, natural gas, petroleum
    - 2. Stone
      - a. Marble
      - b. Granite
      - c. Limestone, sandstone and slate
    - 3. Salt and Sypsum
- V. Industries
  - A. Manufacturing
  - B. Agriculture
    - 1. Farming
    - 2. Fruit raising
  - C. Fishing
  - D. Quarrying
  - E. Mining

3. Relation of man to land forms.

Problem Method of Attack

- 1. Comparison with climate of the West. Advantages and disadvantages.

Problem Method of Attack

- 1. Life of an Oyster Farmer on Chesapeake Bay
- 2. Life of a Coal Miner in the Middle States

Problem Method of Attack in a study of New England.

- 1. Life in the Maine Woods
- 2. Life of a Fisherman at Gloucester, New Foundland
- 3. Life in a Maple Sugar Camp
- 4. Life in a Cotton Mill

- |                 |                                |
|-----------------|--------------------------------|
| F. Lumbering    | 5. Life in a Woolen Mill       |
| G. Paper Making | 6. Life of a Granite Quarryman |
| H. Commerce     | 7. Life in a Munition Works    |

VI. Educational and Musical Centers

- A. New York City
- B. Massachusetts
  - 1. Boston
  - 2. Cambridge

VII. Summer Resorts

- Problem Method of Attack
1. How do these compare with those of the West?

VIII. Important Cities

- Project Method of Attack
1. Life in New York City, Buffalo, Boston, Baltimore, Pittsburgh, Philadelphia and Washington.

(Note)—Use of stereoptican lantern, field trips and excursions, sand table charts, maps and other apparatus furnish opportunity for working out projects.

## • GEOGRAPHY (Climatology)

### Fifth Grade

The purpose of teaching by climatic provinces is purely to save time. If once we know the products of the California climate in California, our pupils have a rich background of information to draw upon when we tell them Italy has a Californian climate or Central Chile has a California climate. We may use a little more time just at the moment to get this climatic background, but we save half the time we otherwise would spend in the study of the other continents if we took them up as disconnected units. See outline page.

The industrial and commercial geography of North America and the West Indies based on climate.

I. Climates

|             |               |           |                               |
|-------------|---------------|-----------|-------------------------------|
| Navadan     | Canadian      | Floridan  | Problem Method of Attack      |
| Coloradoan  | Polar         | Mexican   | 1. Man's relation to climate. |
| Arivonian   | Oregonian     | Caribbean | 2. Climate and Human energy   |
| Californian | Mississippian | Alaskan   |                               |

Temperature and rainfall graphs to be made for each climate illustrating type conditions. The following points to be worked out in detail while making a study of each climate.

- |   |   |
|---|---|
| 1. Location of climatic regions to be studied on outline map of North America. (Individual maps to be made) | Problem Method of Attack  |
| 2. Description of climate   | 1. The relation of man to the physical environment and climate. |
| 3. Vegetation   | 2. The relation of man to the soil and minerals.                |
| 4. Animals  |   |
| 5. Industries   |   |
| 6. Products   |   |
| 7. People   |   |
| 8. Trade  |   |
| 9. Cities   |   |

- II. Physical Features
1. Highlands
    - a. Prevailing Westerlies
    - b. Tropical calms
    - c. Trade winds
    - d. Land and sea breezes
  2. Lowlands
  3. Work of streams
  4. Winds
  5. Glaciation

Note—The use of products Map on Climate Map.  
 Abundant Pictures from National Geographic Magazines and Pan American Union.  
 Pictures to show life in each typical climate.  
 Use of Greenhouse and Museum Specimens.

**Bibliography**—Human Geography, Book I, Smith, Winston Co.  
 Brigham—McFarland, Book II, American Book Co.  
 New Geography, Book II, Tarr & McMurry-MacMillan.  
 Chamberlain's Geographical Readers, Ginn & Co.  
 Frye-Atwood New Geography, Book II, Ginn & Co.  
 Carpenter's Readers on Commerce and Industry—A. B. C.

1. How the world is fed.
2. How the world is clothed.
3. How the world is housed.

Commercial and Industrial Geography by Keller and Bishop, Ginn & Co.

Geography of Commerce and Industry by Rochelean. The Companion Series.

1. Our Country East.
2. Our Country West.

The United States—Winslow.

Industries of Today—The Youth's Companion Series.

Geographic News Bulletin—U. S. Bureau of Education.

## Sixth Grade

### South America

#### A. Climatology

- |                |              |
|----------------|--------------|
| 1. Caribbean   | 6. Amazonian |
| 2. Mexican     | 7. Arizonian |
| 3. Coloradian  | 8. Floridan  |
| 4. Californian | 9. Oregonian |
| 5. Nevadan     | 10. Alaskan  |

#### B. Human Geography

1. Indians
 

|   |   |
|---|---|
| <ol style="list-style-type: none"> <li>a. Physical characteristics</li> <li>b. Traits</li> <li>c. Religion and homelife.</li> </ol> | <p>Problem Method of Attack</p> <ol style="list-style-type: none"> <li>1. Present relation between white man and Indian.</li> </ol> |
|---|---|
2. Present day racial distribution
  - a. Negro
  - b. Indian
  - c. Mediterranean

#### C. Comparison of Climate and People

#### D. Industries and Commerce

- |   |   |
|---|---|
| <p>A study by country, famialarize the child with occupations and products of South America</p> | <p>Problem Method of Attack</p> <ol style="list-style-type: none"> <li>1. Our exports and imports to South America.</li> <li>2. Comparison with occupations and products of North America.</li> </ol> |
|---|---|

## Europe

- A. Climatology
1. Polar
  2. Alaskan
  3. Oregonian
  4. Mississippian
- B. Human Geography
- Races
- a. Nordic
  - b. Alpine
  - c. Mixed races
  - d. Mongolian
  - e. Mediterranean
- C. Comparison of Climate and People
1. Industries and Commerce  
Study by country to familiarize child with habits of people, industries and products
5. Canadian
6. Nevadan
- B. Human Geography
- Problem Method of Attack
1. What makes a difference in races.
  2. What does each contribute to the world.
- Problem Method of Attack
1. Our exports to Europe of raw material and finished products.
  2. Scenic and historic interests.
  3. Comparison of European occupations and standards of living with United States.

## Bibliography

### Textbooks:

|  |                           |
|--|---------------------------|
| Human Geography, Book I—Smith.....         | John C. Winston           |
| Brigham-McFarlane, Book II.....            | American Book Co.         |
| Tarr-McMurry, Book II.....                 | Macmillan Company         |
| Carpenter's Geographical Reader.....       | American Book Co.         |
| New Geography, Book II—Frye-Atwood.....    | Ginn & Company            |
| Little Journey Series—F. J. Koch.....      | A. Flanagan Co.           |
| Peeps at Many Lands—Eliz. Greirson.....    | Macmillan Co.             |
| Our Little Cousin Series—M. H. Wade.....   | Page Co., Boston          |
| Under Sunny Skies—M. A. L. Lane.....       | Ginn & Company            |
| Toward The Rising Sun—M. A. L. Lane.....   | Ginn & Company            |
| Northern Europe—M. A. L. Lane.....         | Ginn & Company            |
| The Wide World—M. A. L. Lane.....          | Ginn & Company            |
| Strange Lands Near Home—M. A. L. Lane..... | Ginn & Company            |
| Winslow Geography Readers.....             | Heath Company             |
| Geographic News Bulletin.....              | United States Educational |

## Seventh Grade

### Climatology

- A. The following climates are to be studied in full: Nevadan, Coloradoan, Arizonian, Californian, Canadian, Polar, Oregon, Floridan, Mississippian, Mexican, Caribbean, Amazonian, Alaskan.
- B. Suggestive Outline.
- Problem Method of Attack
- Take a trip around the world on the 40 parallel of North latitude, noting in relation to it:
1. The dense population areas.
  2. The race types predominating.
  3. The large cities.
  4. Main sorts of industries.
  5. Trade routes across.
  6. The superior plant crops.
  7. Mineral deposits.
  8. Changes in time.
  9. Variations in climate, with causes for same.
1. Location
  2. Characteristics
  3. Causes
  4. Physical Features
  5. Vegetation
  6. Animals
  7. Industries
  8. Important Cities—  
Reasons for location and size.
  9. Effect on the people.
- C. Excursions
1. A visit to the college greenhouse.
  2. Excursions on the campus to study shrubs and trees.
  3. A visit to the museum.

- D. Climate Maps  
 E. Rainfall and temperature graphs.
- Asia, Australia and the Islands of the Pacific
- A. Climatology                      Problem Method of Attack  
 B. Human Geography                1. Climate and human energy.  
 C. A study of the most im-        2. International relations.  
     portant countries with  
     reference to people and  
     industries.
- Africa
- A. Climatology                      Problem Method of Attack  
 B. Human Geography                1. Climate and human energy.  
 C. A study of the most im-        2. Man's relation to man.  
     portant and interesting      3. Why is Africa called "the dark  
     countries                            continent."
- Physical geography (Based on Dodge's "Reader in Physical Geography.")
- A. Origin of Land forms.  
     1. Changes in the earth's  
        crust.  
     2. Work of the atmosphere.  
     3. Work of running water.
- B. Great land forms.  
     1. Mountains: a. building  
        of, b. causes, c. kinds,  
        d. ageing.  
     2. Volcanoes: a. shapes, b.  
        kinds, c. ageing.                Problem Method of Attack.
- C. Earthquakes.                    1. The effect on man of the earth's  
     form and motion.
- D. Geysers and Hot Springs.      2. Human activities in mountains  
     and plains.
- E. Movements of land.  
 F. Soils.

#### Bibliography

- Frye-Atwood—New Geography.  
 Brigham and McFarlane—Essentials of Geography.  
 J. Russel Smith—Human Geography, Book I and II.  
 Carpenter—Asia.  
 Carpenter—Africa.  
 Carpenter—Australia.  
 Stanley—In Darkest Africa.  
 Redway—All around Asia.  
 Stoddord's Lectures.  
 Winslow—United States.  
 Winslow—America's Neighbors.  
 Winslow—Distant Countries.  
 Carpenter—How the World is Fed.  
 Carpenter—How the World is Clothed.  
 Carpenter—How the World is Housed.  
 Dodge—A Reader of Physical Geography.  
 Herbertson—Man and His Work.  
 Hardy—Plant Geography.  
 Newbegen—Animal Geography.  
 Allen—Industrial Studies.  
 Geographic News Bulletin—U. S. Bureau of Education.



# Outline of Climatology\*

## Arizonian Climate.

### Desert

1. Hot summer.
2. Mild winter.
3. Always dry.

### Rainfall. Yuma, Arizona.

Jan: Feb: Mar: Apr: May: Jun: Jul: Aug: Sept: Oct: Nov: Dec.  
0.2: 0.3: 0.2: 0.1: trace 0.1: 0.2: 0.1: 0.2: 0.2: 0.2.

### Temperature.

52: 60: 62: 70: 79: 83: 91: 90: 85: 73: 62: 56.

### B. Causes.

1. Mountains on west.
2. Land on south and east.
3. Distance from ocean.

### C. Physical Features.

1. Mountains.  
Rocky Mountains.
2. Rivers.  
Colorado.  
Gila.  
Rio Grande.
3. Deserts.  
Mohave, Colorado, and Painted.

### D. Characteristic Products.

1. Natural products.
  - a. Mineral salts—salt, soda, borax.
  - b. Sage brush and desert grass.Cacti.  
Manner in which desert plants protect themselves.
2. Under irrigation.
  - a. Grains—wheat and corn.
  - b. Alfalfa.
  - c. Cattle and sheep.
  - d. Fruit.
  - e. Tropical plants—cotton, date palm.

### E. Industries.

1. Agriculture.
2. Ranching.
3. Mining.

### F. Important Cities.

1. Santa Fe.
2. Phoenix.
3. Bisbee.
4. El Paso.

### G. Scenic Wonders.

1. Grand Canyon of the Colorado.
2. Petrified Forest.
3. Painted Desert.
4. Indian life and Ancient Ruins.

### H. People of the desert.

1. Indians.
  - a. Navajo.
  - b. Pueblo.

### Compare and contrast:

1. Homes and food.
2. Forms of agriculture.
3. Rug and basket weaving.
4. Pottery making.
5. Legends.

\*This outline prepared by Professor George Barker, Department of Geography, Colorado State Teachers College.



## I. Arizonian Climate in Other Lands.

1. South America.
  - a. Peru.  
Contrast the life and civilization of the Inca with that of the Navajo and Pueblo.
2. Africa.
  - a. South west coast.
  - b. Sahara Desert.  
Life in this desert compared to that in the other places.  
The Pyramids and Sphinx.
3. Asia.
  - a. Asia Minor and the interior of Arabia.
  - b. Desert of Gobi in China.
  - c. Indo China.  
Compare and contrast desert life in this region to desert dwellers elsewhere.
4. Australia.
  - a. Great western half.  
Animal life in Australia.  
Compare and contrast plant and animal life in all desert regions.

### Oceanic

1. Even temperature.
2. Much rainfall.
3. Semi-tropical.

## Floridan Climate.

### A. Characteristics.

Rainfall—Miami, Florida.

Jan: Feb: Mar: Apr: May: Jun: Jul: Aug: Sept: Oct: Nov; Dec.  
4 : 2.6: 3 : 3.7: 4.5: 8.3: 7.3: 5.4: 9.2: 7.2; 2 ; 1 ;

Temperature.

65: 67: 71: 74: 76: 81: 82: 82: 81: 78; 74; 69.

### B. Causes.

1. Nearness to ocean.
2. In trade wind belt.

### C. Physical Features.

1. Ocean.
  - a. Atlantic.
  - b. Gulf of Mexico.
2. Rivers.
  - a. Mississippi.
  - b. Alabama.
  - c. Chattahoochee.
  - d. Savannah.
3. Bays and Harbors.
  - a. Galveston Bay.
  - b. Mobile Bay.
  - c. Tampa.

### D. Characteristic Products.

1. Cotton.
2. Fruit.
  - a. Grapefruit, orange, lemon.
  - b. Pineapple and other tropical fruit.
3. Forests.
  - a. Southern Pine.
4. Sugar cane.
5. Rice.
6. Sponges.

### E. Industries.

1. Agriculture.
  - a. Plantation.

Cotton.  
Sugar.  
Tobacco.

- b. Turpentine.
  - c. Orchards.
  - d. Vegetable gardening.
  - 2. Lumbering.
  - 3. Manufacturing.
    - a. Cotton.
      - Cloth.
      - Cotton seed oil and other bi-products.
    - b. Sugar and bi-products.
  - 4. Fishing.
  - 5. Commerce.
    - a. Importance of Mississippi River in trade with South American countries.
- F. Important Cities.
- 1. New Orleans—Manufacturing center; doorway to interior; centrally situated to South America.
  - 2. Mobile—Shipping center.
  - 3. Savannah.
- Seaports shipping cotton, lumber, etc.
- 4. Charleston.
  - 5. Galveston—Seaport shipping cotton etc., outlet for goods from west.
  - 6. Palm Beach and Miami—Famous winter resorts.
- G. Floridan Climate in Other Lands.
- 1. South America.
    - a. South Eastern coast.
  - 3. Asia.
    - a. China—southern part.
    - b. Japan—southern half.
  - 4. Australia.
    - a. Southeast coast.

### Californian Climate.

#### A. Characteristics.

Oceanic

- 1. Hot, dry summer.
- 2. Mild, wet winter.
- 3. Heavy rainfall—ocean winds.

Rainfall—Los Angeles, California.

Jan: Feb: Mar: Apr: May: Jun: Jul: Aug: Sept: Oct: Nov: Dec.  
 3.6: 3.6: 3.5: 1-3: .3: .1: trace : .7: 1.3: 3.2.

Temperature.

52: 52: 53: 60: 61: 68: 71: 72: 70: 62: 60: 55.

#### B. Causes.

- 1. Japanese current.
- 2. Prevailing westerlies and nearness of ocean.
- 3. Influence of mountains.

#### C. Physical Features.

- 1. Mountains.
  - a. Coast Range.
  - b. Sierra Nevada—Snowy Range.
  - c. Peaks.
    - Mt. Shasta.                      Lassen's Peak.
    - Mt. Whitney.
- 2. Rivers.
  - a. Sacramento.
  - b. San Joaquin.
- 3. Lakes.
  - a. Tulare (not important).
- 4. Harbors.
  - a. San Francisco.
  - b. San Diego.
  - c. Long Beach.

- d. Los Angeles (artificial harbor).
- e. Monterey Bay.
- 5. Valleys—Extent and importance.
  - a. Sacramento.  
Great central tropical valley.
  - b. Santa Rosa.  
Famous for great vineyards.
  - c. Santa Clara.  
Famous for flowers and seeds.
  - d. Yosemite.  
Big Tree region.  
Many Indian legends connected here.
  - e. Imperial Valley.  
Irrigated region.
  - f. Santa Barbara.  
Fruit growing region.
- 6. Ocean, Pacific.  
Causing good harbors and transportation.
- 7. Deserts.
  - a. Mohave.
  - b. Death Valley.
  - c. Colorado.
- D. Characteristic Products.
  - 1. Fruits.  
Tropical, semi-tropical, and temperate region.
  - 2. Grains and cereals.
  - 3. Vegetables.
  - 4. Dairy products.
  - 5. Fish—shell fish, tuna.
  - 6. Gold and silver.
  - 7. Cattle and sheep.
  - 8. Salt and soda.
  - 9. Lumber.
- E. Industries.
  - 1. Agriculture.
  - 2. Ranching.
  - 3. Fruit raising.
  - 4. Lumbering.
  - 5. Dairying.
  - 6. Mining.
  - 7. Commerce.
- F. Californian Climate in Other Lands.
  - 1. South America.  
Chili.
  - 2. Europe.  
Spain, France, Italy, Greece.
  - 3. Africa.  
Northern part along the Mediterranean.
  - 4. Asia.  
Euphrates Valley  
Asia Minor
  - 5. Australia.  
Southern coast.
- G. Cities of Importance.
  - 1. San Francisco.  
On San Francisco Bay. Doorway of U. S. looking toward Asia.
  - 2. Sacramento.  
Center of Sacramento valley.
  - 3. San Diego, Los Angeles, Santa Barbara, Sea Ports.
  - 4. Needles.
  - 5. Fresno.

## Coloradoan Climate.

### A. Characteristics—mountainous.

1. Great daily change.
2. Small rainfall.
3. Cool summer.
4. Cold winter.

### Rainfall, Breckenridge, Colorado.

Jan: Feb: Mar: Apr: May: Jun: Jul: Aug: Sept: Oct: Nov: Dec.  
1.8: 3 : 3.5: 3 : 2.1: 1 : 2.2: 2 : 1 : 1.2; 2.1; 2.7.

### Temperature.

15: 15: 22: 29: 39: 48: 53: 54: 46: 36; 26; 17.

### B. Causes.

1. High mountains—great altitude.
2. Western winds.

### C. Physical Features.

1. Mountains.  
Rocky Mountains—Formation of mountains. Volcanic deposits and minerals to be expected.
2. Rivers.
  - a. Head waters of many rivers.  
Platte.  
Yellowstone.  
Missouri.  
Columbia.  
Snake.  
Colorado.  
Rio Grande.  
Arkansas.
3. Valleys.
  - a. Many small sheltered valleys between high mountain ridges.

### D. Characteristic Products.

1. Minerals.
  - a. Gold and silver.
  - b. Copper, iron, lead, etc.
  - c. Coal, gas, and petroleum.
2. Forests.
3. Hardy grains and grasses in sheltered valleys.

### E. Industries.

1. Mining.
2. Smelting.
3. Lumbering.

### F. Important Cities.

1. Butte—Copper mining.
2. Helena—Gold mining.
3. Cripple Creek—Gold mining and smelting.
4. Leadville—Gold, silver, and lead mining.

### G. Native Animal Life.

1. Fur bearing.
  - a. Bear, wolf, mountain lion, mountain sheep.

### H. Coloradoan Climate in Other Lands.

1. South America.
  - a. Andes Mountain range.
2. Europe.
  - a. Alps.
3. Asia.
  - a. Himalaya mountains.

## Mississippian Climate.

### A. Characteristics.

1. Hot summer.
2. Cold winter
3. Abundant rain and snow.

Rainfall—Pittsburg, Pennsylvania.

Jan: Feb: Mar: Apr: May: Jun: Jul: Aug: Sept: Oct; Nov; Dec.  
2.9: 2.9: 2.9: 3 : 3 : 3.8: 4.5: 3 : 2.6: 2.5; 2.7; 2.9.

Temperature.

31: 33: 49: 51: 63: 71: 75: 73: 67: 56; 43; 35.

B. Causes.

1. In trade wind belt.
2. Long stretches of flat country.

C. Physical Features.

1. Mountains.
  - a. Ozarks.
  - b. Appalachian.
2. Rivers.
  - a. Mississippi.
  - b. Ohio.
  - c. Tennessee.
3. Ocean.  
Atlantic.
4. Bays and Harbors.
  - a. Massachusetts Bay—Boston Harbor.
  - b. New York Bay.
  - c. Delaware Bay.
  - d. Chesapeake Bay.
  - e. Many good harbors along coast.
5. Plains, plateaus, and valleys.
  - a. Costal plain and Piedmont Plateau.
  - b. Great central plain.
  - c. Mississippi Valley.
  - d. Ohio Valley.
  - e. Red River Valley.

D. Characteristic Products.

1. Grains.
  - a. Wheat.
  - b. Corn. (Important bi-products).
  - c. Small grains, and cereals.
2. Forests.
  - a. Deciduous trees.
3. Fruits.
  - a. Berries and small fruits. (Cranberries).
  - b. Orchard fruits—peaches, apples, etc.
  - c. Grapes.
4. Fish.
  - a. Oysters, cod, and mackerel.
5. Cattle, sheep, and horses.
6. Minerals.
  - a. Coal, natural gas, and petroleum.
7. Semi-tropical plants.
  - a. Cotton, hemp, and tobacco.

E. Industries.

1. Agriculture.
  - a. Farming.
    1. Wheat—great extent of farms.
    2. Corn—hog and cattle raising.
    3. Cotton and tobacco plantations.
  - b. Orchards.  
Vineyards, cranberry bogs, nurseries.
  - c. Stock raising in Blue Grass region.
2. Manufacturing.
  - a. Flour and the bi-products.
  - b. Canning—fruits and vegetables.
  - c. Furniture.

- d. Cloth—cotton, wool, and silk.
- e. Machinery and implements.
- f. Jewelry, clocks, etc.
- g. Meat packing.
- h. Dairy products.
- 3. Lumbering.
- 4. Mining.
- 5. Fishing.
- 6. Commerce (Especially great).
- F. Cities of Importance.
  - 1. Reasons for location and size.
- Ocean ..  
Ports
  - a. New York—gateway to U. S. from Europe.
  - b. Boston—center of great manufacturing district.  
Shipping point.
  - c. Philadelphia—shipping point for interior.
- River  
Ports
  - d. Minneapolis—manufacturing center.
  - e. St. Louis—shipping point.
  - f. Cincinnati—shipping point.
  - g. Kansas City—manufacturing and transportation center.
- Lake  
Ports
  - h. Omaha—transportation center.
  - i. Chicago—center of interior industry.
  - j. Detroit—manufacturing center.

On border of Canadian Climate.

- G. Native Animals.
  - 1. Deer.
  - 2. Fur bearing—bear, wolf, fox, etc.
- H. Mississippian Climate in Other Lands.
  - 1. South America.
    - a. Pampas region.  
Uruguay.  
Paraguay.
  - 2. Europe.
    - 1. Great central portion.  
Central France.  
Southern Germany.  
Northern Austria.  
Southern Russia including the Black Soil Belt.
  - 3. Asia.
    - 1. China.  
Southeast of Desert of Gobi.
    - Japan.  
Northern half.

#### Nevadan Climate.

- A. Characteristics.
  - 1. Hot summers.
  - 2. Cold winters.
  - 3. Small amount of rainfall.

Rainfall—Canon City, Colorado.

Jan: Feb: Mar: Apr: May: Jun: Jul: Aug: Sept: Oct; Nov; Dec.

2 : 1.5: 1-2: 0.3: 0.7: 0.1: 0.1: 0.3: 0.3: 0.6; 1.2; 1.7.

Temperature.

33: 36: 41: 47: 54: 61: 68: 67: 60: 50; 42; 34.

- B. Causes.
  - 1. Shut in by mountains and plains.
  - 2. In western wind belt.

C. Physical Features.

1. Mountains.  
Basin Ranges.  
Columbia Plateau.  
Colorado Plateau.
2. Rivers.
  - a. Columbia.
  - b. Snake.
  - c. Missouri.
  - d. Platte.
  - e. Yellowstone.
3. Lakes.
  - a. Great Salt Lake.
4. Plains.
  - a. Great Western Plains.

D. Irrigation.

1. Importance.
  - a. Rich lands but insufficient moisture.
2. Extent.
  - a. Use in Colorado, Wyoming, and Montana.
  - b. Use in Utah, Idaho, and California.
  - c. Government work in irrigation.  
Reclamation of arid regions.

E. Characteristic Products

1. Forests.
2. Grains and cereals.
3. Fruit.
4. Cattle and sheep raising.
5. Minerals.
6. Manufactured Products.
7. Alfalfa.
8. Potato.
9. Sugar Beet.

F. Industries.

1. Lumbering.
2. Agriculture.
3. Ranching.
4. Mining.
5. Manufacturing.

G. Nevadan Climate in Other Lands.

1. South America.
  - a. Southern Argentina.
2. Europe.
  - a. Central Spain.
3. Asia.
  - a. Southern Siberia, Central Asia, Northern Persia and Turkey.  
Compare agricultural methods in these regions with those in United States.

H. Important Cities.

1. Spokane.  
Manufacturing and shipping city.
2. Salt Lake City.
3. Denver.
4. Boise.
5. Pueblo.

Oregonian Climate.

A. Characteristics—Oceanic.

1. Mild winters.
2. Cool summers.
3. Rainfall heavy in winter.



Rainfall—Tatoosh Island, Washington.

Jan: Feb: Mar: Apr: May: Jun: Jul: Aug: Sept: Oct; Nov; Dec.  
13 : 9.3: 8.2: 7.1: 4.2: 4 : 2 : 2.2: 5.7: 8 ; 12.5; 15.3.

Temperature—tatoosh Island, Washington.

41: 41: 44: 46: 50: 54: 56: 56: 54: 50; 46; 43.

B. Causes.

1. Japanese current.
2. Prevailing westerlies and nearness of ocean.
3. Influence of mountains.

C. Physical Features.

1. Mountains.
  - a. Coast Range. Mt. Rainer; Mt. Hood.
  - b. Cascade Range. Mt. Whitney.
2. Rivers.
  - a. Columbia.
  - b. Willamette.
3. Lakes.
  - a. Crater Lake (not important).
4. Bays and Sounds.
  - a. Puget Sound.
  - b. Harbors along coast.
5. Valleys.
  - a. Columbia River valley.
  - b. Willamette River valley.
6. Ocean—Pacific.
  - a. Causing good harbors and easy transportation.

D. Characteristic Products.

1. Forests—Pine and Redwood.
2. Fruit—Temperate region fruits.
3. Fish—Salmon.
4. Dairy Products.
5. Grains—wheat, barley, small grains.  
Irrigated regions east of Cascades.

E. Industries.

- |                   |                            |
|-------------------|----------------------------|
| 1. Lumbering.     | 6. Mining.                 |
| 2. Fishing.       | 7. Manufacturing.          |
| 3. Dairying.      | 8. Canning—fruit and fish. |
| 4. Agriculture.   | 9. Commerce.               |
| 5. Ship building. |                            |

F. Oregonian Climate in Other Lands.

1. South America.
  - a. Southern Chili.  
Compare scenery, products, and people.
2. Europe.
  - a. British Isles, Denmark, Northwest coast France.  
Products, industries, and people.
  - b. Australia—southeastern part.
  - c. New Zealand.  
Location, wonderful scenery, products.

G. Important Cities in Oregon and Washington.

1. Reasons for location.
  - a. Seattle, on Puget Sound.  
Advantages.  
Near ocean.  
Near lumber land therefore ship building center.  
Distributing point to Alaska.
  - b. Portland.  
Near junction of Columbia and Willamette.
  - c. Astoria.  
At mouth of Columbia.
  - d. Salem.  
In center of Willamette valley.



- e. Tacoma.  
Trade center—lumber, grain, etc.
- f. Everett and Bellingham.  
Manufacturing centers.

## Climates According to Winds

“Plant Geography”—Hardy.

“U. S. Geography”—Dryer.

### A. Westerlies.

1. Artic climate. Tundra, Hardy p. 113.  
Cold all year.  
Rainfall low.
2. Canadian climate. Targa, Hardy p. 106.  
Short, hot summers.  
Long, cold winters.  
Rainfall less than 40 in.
3. Alaskan climate. Oceanic: mild winters.  
Cool summers.  
60-100 in. rainfall.
4. Oregonian climate. Hardy, Chapt. 10 New Zeal.  
Mild winters.  
Cool summers; winter rain.
5. Californian climate. Med. Woodlands, Hardy p. 70.  
Dry summers, wet winters; warm climate.
6. Nevadan climate. Hardy-Steppe p. 92; Sagebrush p. 87.  
Cold winters, hot summers.  
Rainfall—20 in.
7. Mississippian climate. Hardy. Temp. Deciduous Forests p. 98.  
Hot summers, cold winters; plenty of rain and snow.
8. Coloradoan climate. Hardy p. 120-135.  
High mt. climate.  
Great daily change of temperature  
small rainfall, 730 seasons.

### B. Trade Winds.

1. Floridan climate.
2. Arizonian climate.
3. Mexican climate.
4. Caribbean climate.

Hardy 62-29.  
No dry season; most of rainfall in summer and autumn, less than 80 in.  
Hardy 55-61.  
Always dry; very hot summers; rainfall less than 10 in.  
Dry winter; rainfall less than 60 in.  
Hardy 50-54; 37-44.  
Hardy 44-50; 32-37.  
Even temperature; tropical; dry and wet season.

### C. Doldrum.

1. Amazonian climate.  
Hardy p. 20-31.  
Rainy all year, no seasonal change of temperature.

# Outline of Human Geography\*

## North America.

American Mongols—Indians.

Boreal Mongols—Eskimos.

### I. Origin—Asiatic.

Left Asia before yellow race as such had completely established its type.

### II. Types—two.

Tall, cigar sign type with eagle nose. Largely confined to east of the Rockies, Algon, Kian, Siouian, Iroquoian, etc.

Short, heavy set, broad faced type most prevalent west of Rocky Mountains, Alaskan Coast Indians, Puget Sound Indians best examples.

### III. Indian Language Families, Eastern North America.\*\*

1. Algonkian—Shawnee, Pequot, Narragansett, Powhatan, Delaware, Mohican, Ojibwa, Chippewa, Cree, Illinois, Ottawa, Pottawatomie, Sac and Fox, Blackfeet, Arapahoe, Cheyenne, (notice that most of the historically famous eastern tribes are Algonkian). Also King Philip, Powhatan, Tecumseh, and Pontiac, Jim Thorpe, famous athlete, is a Sac and Fox.

2. Iroquoian—Cayuga—Seneca, Mohawk, Tuscarora, Onondaga, Oneida, Cherokee, Erie and Huron.

3. Siouian—Dakota, Winnebago, Catawba. Sitting Bull and Rain-in-the-Face were Dakotas.

4. Muskogian—Choctaw, Chickasaws and Creeks.

### IV. Indian Language Families, Western United States.

1. Shoshoean—Ute, Piute, Enuke, Shoshone, Comanche, Aztec.

2. Athapascan—Alhupascans, Apache, and Navajo. Geronimo was an Apache.

See Clark Wissler "The American Indian".

### V. Indian Life as Affected by Climate.

1. Canadian Climate—Birch bark, pine forest, trapping civilization. Wild race—Ojibwa, Chippewa, Cree, (Read Hiawatha.)

2. Mississippian Climate—Board leafed forest, deer hunting, corn planting civilization—Shawnee, Delaware, Cherokee, Powhatan, Sac and Fox, Mochican, Iroquoian group.

3. Nevadan Climate—Buffalo Culture, Dakota, Arapahoe, Cheyenne, Kiowa, Comanche, Ute, Blackfoot.

4. Arizona Climate—Pueblo or Zuni culture. Seditary Pueblo. Nomadic shepherds, Navajo (See Blankets), Apache.

Mexican Climate—Culture of Aztecs.

### Problem Method of Attack.

(a). Show how the house or other shelter of each Indian group is a response to the climate and the building materials at hand. For references on Indians study Bulletin 30, Bureau of Ethology entitled "Handbook of American Indians". (b) Show why the civilized tribes have been in the mountains of the west rather than the settled Mississippi Valley.

4. Arizona Climate—Pueblo or Zuni culture (Seditary Pueblo), Nomadic shepherds, Navajo (See Blankets) Arapahoe.

Mexican Climate—Culture of Aztecs.

### Problem Method of Attack.

(a) Show how the house or other shelter of each Indian group is a response to the climate and the building materials at hand. For references on Indians study

\*This outline prepared by Professor George Barker, Department of Geography, Colorado Teachers College.

\*\*Select from this list several tribes (or groups) to present to the children.

Bulletin 30, Bureau of Ethology entitled: "Handbook of American Indians." (b) Show why the civilized tribes have been in the mountains of the west rather than the settled Mississippi Valley.

VI. South American Indians.

1. Indians of the Tropical Region—Caribs, Awawaks and Guarani (chief food, manioc or tapioca).

Problem Method of Attack.

Response in food and clothing to climate. (See Clark Wissler, "American Indian").

2. Indians of the Plateaus of the Andes—High culture—cultivation of the potato, domestication of the llama and alpaca. Their irrigation systems and governments before Columbus.

Problem Method of Attack.

Response of physical type to high altitude (short, thick set, barrel chested). Why?

3. Indians of the wooded districts of Chile—their war-like qualities (The Iroquois of South America). Fishing, hunting, Potato culture.

Problem Method of Attack.

Why difficult to conquer their country? Physical type, short, thick set, light ruddy complexion. Why?

4. Indians of the Plains of Argentine—Dependence of their culture on the hunting of the guanaco. (Compare with Dakotas and bison in North America). Nomadic life, splendid physique, tallest people of world. See Clark Wissler, "The American Indian."

5. Indians of Tierra del Fuego—Struggle for existence in stormy climate too cold for agriculture. Food—fish, seal and stranded whale. Growths due to damp climate on trunks of trees. Physical type—Stunted and poor except in East Tierra del Fuego, where people belong in group four.

VII. Food products borrowed by the white man from the Indian.

North America—Corn, chile beans, squash, chocolate, vanilla, chili pepper, pineapple, maple sugar.

South America—Corn, tapioca, mate, or paraguay tea, sweet potato, Irish potato, peanut.

VIII. European Races in North America.

1. Nordic—English and Dutch.

2. Alpine—Nordic, Pennsylvania Germans, French in Canada.

3. Mediterranean—Spanish in Mexico, Central America and Spanish West Indies.

4. Nordic and Alpine brought women with them. Mediterraneans intermarried with native women, thus originated Mestizo of Mexico and Central America.

5. Later emigrations—Mediterranean—Italians and Jews to United States, Spaniards to Cuba. Alpine—Balkan peoples and people of Russia and former Austria-Hungarian realm to United States.

Nordic—Swedes, Norwegians and Danes to United States and Canada.

Problem Method of Attack.

Effect of frontier and sea journey in selecting restless Nordic type temperamentally. See Ripley's "Races of Europe."

IX. Best Adaptations of immigrant population according to climate.

1. Mediterranean—Floridan, Arizonan, Californian, or Mexican climates.

2. Alpine—Mississippian climate or Nevadan climate.

3. Nordic—Oregonian, Alaskan, or Canadian climate.

Problem Method of Attack.

Why is this grouping true? Study Abraham Lincoln and Andrew Jackson as products of the modified democracy of the Mississippian forest area (pioneer type).

- X. Boreal Mongol.
1. Eskimo—Physical type, adaptation of culture to surrounding. Inventive genius, artistic ability. See Bulletin 30, Bureau of Ethnology.

## Europe

- I. Neanderthal Man.
1. Lived in the Fourth (Wisconsin) Glacial Period.
  2. Climate—Cold.
  3. Cave man in Rough Stone Age with no agriculture. Cave as refuge from cold and animal enemies.
  4. Lived in France and Germany chiefly.
  5. Physical type—Low brow, heavy projecting snout, low physical and mental type. Now extinct.
- II. Cro-Magmon Man.
1. Supplanted and killed off neanderthal man. Much higher type—long head, high cheek bones, straight nose, as intelligent as average European today. Used rough stone weapons. Made drawings on cave walls. Still found in France mixed with modern peoples at Oleron and Dordogne.
- III. Three modern European Races.
1. Nordic—Tall, blonde, long headed.  
Temperament—Restless and anxious to translate thought into action.  
Nordic Nations—Norwegians, Swedes, Danes, North Hollanders, Flemish, Northwest Germans, (Westphalia, Schleswig-Holstein, and Hanover). East English, East Lowlands of Scotland, Scotch Islands.
  2. Alpine—Medium stature, stocky frame, broad head, round face, medium complexion.  
Temperament—Passive, hard working, plodding and methodical.  
Alpine Nations—Swiss Highlanders, people of the Carpathians, Central French, South Germans (Bavarians) and North Italians.
  3. Mediterranean—Short, brunette, long headed, oval face,  
Temperament—Imaginative, artistic, potentialities usually well developed.  
Mediterranean Nations—Spaniards, South French, South Italians, and Greeks of the Islands.
- IV. Crosses.
1. Mediterranean and Nordic—Welsh, Highland Scotch and Irish—Blue eyes of Nordic—black hair of Mediterranean.
  2. Alpine and Nordic—Prussians, Saxons and other people of east and southeast Germany. German Austrians, Poles, Russians and Bohemians.
  3. Mediterranean and Alpine—Greeks of Mainland, peoples along Adriatic littoral, Syrians.
- V. Climatic Distribution.
1. Nordic (cool oceanic climates)—Oregonian, Alaskan, and oceanic shores of Canadian climate.
  2. Mediterranean—California climates of Mediterranean and Atlantic ocean littoral.
  3. Alpine (The continental climate loving race of Europe)—Mississippian, Interior Canadian, Coloradoan in high Alps.
- VI. Relation of Race and Language.
1. Language Groupings of Europeans.  
Celtic Speaking

|   | Race                       | Blend  |
|---|----------------------------|--|
|   | Breton of France—          | Nordic and Alpine.   |
|   | Welsh—                     | Med. and Nordic.   |
|   | Irish—                     | Med. and Nordic.   |
|   | Highland Scotch—           | Med. and Nordic.   |
|   | Scotch of Far North Isles— | Nordic.  |
| Teutonic Speaking                             | East English—              | Nordic.  |
|   | West English—              | Nordic and Med.  |
|   | Northwest German—          | Nordic.  |
|   | Northeast German—          | Nordic and Alpine.   |
|   | South German—              | Alpine.  |
|   | German Swiss—              | Alpine.  |
|   | German Austrian—           | Alpine and Nordic.   |
|   | Hollander—                 | Nordic. (Some Hollanders, Nordic and Alpine).              |
|   | Fleming—                   | Nordic.  |
|   | Dane—                      | Nordic.  |
|   | Swede—                     | Nordic.  |
|   | Norwegian—                 | Nordic.  |
|   | Lowland Scotch—            | Nordic in East—Nordic and Med. in West.                    |
| Latin Speaking.                               | North French—              | Nordic and Alpine.   |
|   | Central French—            | Alpine.  |
|   | South French—              | Mediterranean.   |
|   | Spanish—                   | Mediterranean.   |
|   | North Italian—             | Alpine.  |
|   | South Italian—             | Mediterranean.   |
| Slavic Speaking.                              | Bohemian—                  | Nordic and Alpine.   |
|   | Russian—                   | Nordic and Alpine, and in east and south a dash of Mongol. |
|   | Pole—                      | Nordic and Alpine.   |
|   | Serbian—                   | Alpine.  |
|   | Bulgarian—                 | Alpine and Mongol.   |
| People of Mongolian Speech in Europe.         | Finn—                      | Nordic and Mongol.   |
|   | Magyar (Hungarian)—        | Alpine and dash of Lapp—Mongol, Mongol and Nordic.         |
|   | Lapp—                      | Mongol and Nordic.   |
|   | Turk—                      | Alpine and Mediterranean and dash of Mongol.               |
| Basques—                                      | Primitive speech—          | Mediterranean.   |
| Letto-Lithuanian speech—                      | Nordic.                    |  |
| See Ripley "Races of Europe."                 |                            |  |
| Hadden "Races of Man and their Distribution." |                            |  |
| Keane, "Man—Past and Present."                |                            |  |

## Asia

- I. Caucasian Races.
  1. Characteristics:
    - a. Fair skin (esp. in northern races). Olive to brown (in southern races.)
    - b. Straight set eyes (blue, gray, brown, black).
    - c. Abundance of hair (often wavy and long, varying in color from yellow to red, brown or black). Men generally have beards.
  2. Distribution.
    - a. Almost in all parts of Europe.
    - b. Africa north of the Sahara. (Southern Europeans).
    - c. Western Asia.
  3. Subdivisions in Europe.
    - a. Mediterranean.

- b. Nordic—northern European.
- c. Alpine—Swiss, Adriatic.
- 4. Subdivisions in Asia.
  - a. Georgianš of the Caucasus region.
  - b. Semitic races of Arabia and Syria (Jews, Arabs, Persians).
  - c. Armenians and Kurds of East Asia Minor.
    - Iranians of Persia.
    - Afghans and Natives of Baluchistan.
  - d. Hindus of North India (speak Aryan language).
    - (Hindus of South India are of doubtful origin) mixed with Negrol (?)
  - e. Slavonic (Alpine) peoples from Russia to Southern Siberia and Russian Turkestan.
  - f. British in India and French Indo-China. (Mostly government officials).

## II. Mongolian Races.

- 1. Includes about two-thirds of whole population of Asia.
- 2. Characteristics:
  - a. Skin is of yellowish hue.
  - b. Prominent cheek bones.
  - c. Oblique eyes.
- 3. Subdivisions.
  - a. Northern Mongols (or Mongola—Tatars) include:
    - 1. Tribes in northern Siberia (Yakuta) akin to Lapps in Europe.
    - 2. Many tribes of southern Siberia and Turkestan—Turkomans.
    - 3. Ottoman Turks (Osmanli).
    - 4. Japanese and Koreans.
    - 5. Manchus (ruling class in Manchuria, found in Manchuria).
    - 6. Mongols (found in Mongolia).
    - 7. Lapps (in Europe).
  - 8. Samoyeds (in Siberia).
  - b. Southern Mongolians include:
    - 1. Inhabitants of Highland of Tibet.
    - 2. China proper.
    - 3. Burma.
    - 4. Himalayan slopes in India.
  - c. Boreal Mongols.
    - 1. Eskimos of N. A.
  - d. American Mongols.
    - 1. Indians of North America.
  - e. Oceanic Mongolians include:
    - 1. Bulk of inhabitants of Malay Penin.
    - 2. Bulk of inhabitants of East Indies.
    - 3. Bulk of inhabitants of Formosa.
    - 4. Bulk of inhabitants of Phillipines.

## III. Negro Races (in Asia).

- 1. Subdivisions in Asia (Oriental negroes).
  - a. Negritos.
    - 1. Characteristics.
      - (a) Small of stature.
      - (b) Wavy or tufty black hair.
    - 2. Distribution.
      - (a) A few in Malay Penin.
      - (b) A few in Andaman Isles.
      - (c) Some parts of the East Indies.
      - (d) Some parts of the Phillipines.
  - b. Papuan or Melanesian. Tall, long headed, usually convex nose, frizzy headed, very dark.

## Africa

Key Phrase to Africa—"Africa starts south of the Sahara. The plants, animals and human inhabitants of Africa that are typically African are not found north of the Sahara. Examples.

1. Baobab and oily, palm, rubber plants.
2. Rhinoceros, elephant, gorilla.
3. Negro races of man.

### I. Groups of African Negroes.

1. Negro (nearly black complexion, wooly hair, flat face, thick lips, long flat feet. Found in purity along thickly forested area of gold coast. Temperament—Imitative, jolly, musical, not inclined to worry over future, content, with little, hence furnished slavers with ideal temperament for forced labor. Our negro slaves in America derived from this group. See Keane, "Man, Past and Present."
2. Pygmy—Very short, between three and four feet, coffee colored in complexion, hair scattered over head in little tufts with bare patches between. Low culture. Found in forests of Congo. See De Quatrefuges "The Pygmies."
3. Bushmen—Between four and five feet, emaciated, high cheek bones, narrow eyes, pinched nostrils, complexion like dry leaves, hair in tufts with bare patches between, skin leathery. Found in Kalahari Desert and adjacent parts of South Africa.
4. Bantu—Astone age cross of white and guinea negro. Found in Africa, South of the Kongo, Zulu, Basuto, Mathabali, "Kaffirs" Sudanese, white-black crosses, Hausa, Obysinian, Nubian, Masii, Somali and people of Uganda.

### II. Climatic Adaptations.

1. Guinea Negro—Amazonian and Caribbean.
2. Pygmy—Amazonian. Adaptation of physique and life to tropical forests.
3. Bushman—Arizonian—Adaptation of physique and life to desert.
4. Bantu—Mexican—Caribbean and Floridan climate. Adaptation of these to less culture centering around grazing herds. See Keane, "Man—Past and Present." Ratzel "History of Mankind".
5. Adaptation of South African Dutch (Boer) to Mexican (cattle-raising) environment and climate.

## Australia

### I. Primitive Australians—three strains.

1. Paupan (Asiatic, or Oriental Negro).
  2. Dravidian (possibly Mediterranean white) from India.
  3. Malay (Oceanic Mongol).
- 1-2-3 blend to make the present Australian aborigines.

Physical type—dark, flat-footed, heavy ridge across brow, low stupid features, heavy projecting snout, wavy or straight hair, full beard.

Mental type low—Physical type not superior.

Cause of lack of development—Poverty of Australian environment in useful animals and useful plants until the white man introduced them.

Problem: Could Australia today support five million white people if all plants and animals of non-Australian origin were suddenly obliterated?



## II. White Australians.

Usually Nordic or Nordic and Mediterranean from British Isles. White Australians settle in Floridan, Californian and Mexican climatic provinces in Australia. They avoid the Arizonian (except mining camps) and Caribbean climatic provinces, which thus remain empty lands. Why is this so?  
Keane, "Man—Past and Present."

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# HISTORY

## Third Grade

The aim of the history in this grade is to give the children an interest in their own community and their state and to give them experience with simple living conditions such as were experienced by the Indians in their primitive ways of living and the simple ways of the early settlers of this locality. This will be done through the history stories. These stories will include the group of stories, still in manuscript form, written by Mrs. Allen of Greeley, which are nearly all first hand knowledge of the history of this community, parts of the stories of the expeditions of Lewis and Clark, stories of Pike, Fremont, Kit Carson and Green Russell.

### Outline for the Study of the Indians

- I. Early Indian Life in Colorado.
  - A. Different types of Native Tribes.
    1. Mountain tribes—Utes.
    2. Plateau tribes—Navajo.
    3. Desert tribes—Cheyennes, Comanche, Kiowa.
    4. Cliff dwellers—Pueblo, Hopi, Zuni.
  - B. Characteristics of each type of tribe.
    1. Appearance.
    2. Dispositions.
    3. Homes.
    4. Dress.
    5. Customs and religious ceremonials.
    6. Mode of gaining a livelihood.
    7. Mode of travel, trade and exchange.
    8. Relation to white man.

### Outline for the Study of the Early Explorers and Settlers

- I. The Coming of the White Man.
  - A. Purpose.
  - B. Means of Travel.
    1. Travel on horseback.
    2. Emigrant wagons.
    3. Prairie schooners.
    4. Stage coaches.
  - C. Relations and difficulties with Indians.
  - D. Early Explorers.
    1. Lewis and Clark (study as much as has bearing on History of Colorado).
    2. Fremont.
    3. Kit Carson.
    4. Green Russell.
  - E. Results of these explorations.
  - F. Early settlements.
    1. Greeley Colony.
      - a. Founding of colony.
        1. When.
        2. By whom?
        3. Why.
      - b. Maning of colony.
    2. Trouble with the Indians.
    3. Early life and trade.
      - a. Homes.
      - b. Occupations.
      - c. Transportation.

4. Comparative study of growth of colony.
  - a. Homes.
  - b. Public buildings.
  - c. Schools.
  - d. Churches.
  - e. Means of transportation and travel.
  - f. Industries.

The use of all available material and devices, such as maps, reference books, construction work, standtable, dramatizations and projects growing out of the study of these stories will be prominent features in the teaching of this history work.

Possible projects might be—

Depicting scenes of the early Indian life, life of settlers, crossing of plains in the prairie schooners and the making of a pueblo in the standtable.

## Fourth Grade

The history stories taught in this grade are based upon the geography studied and thus will deal with the stories of explorers, discoverers and makers of our western country and of the Mississippi Valley.

These stories will include those of the Lewis and Clark Expeditions and their opening of the Great Northwest, Colorado, Fremont, and Carson, Powell, Pike, Parkman, Balboa, Pueblo, Western Fur Traders, Mormons, and the Spanish Missions; the Jesuit Missionaries, stories of Car- tier, Joliet, etc.

### Outline for the Study of the Explorers

- I. Aims.
- II. Difficulties.
  - A. Physical barriers in opening the new country.
  - B. Struggle for a livelihood.
  - C. Indian Troubles.
  - D. Protection—ways and means.
- III. Results of attempts of explorations and of settlements.
- IV. Comparisons between the particular story told with others similar in character.

(Note)—The use of all available material and devices in the study of these stories and construction work in projects growing out of them should be made very prominent.

Use of supplementary reading material should form part of the outside work.

### Outline for the Study of the Pueblo Indians

- I. Where found.
- II. Homes.
  - A. Kind of homes—how built.
  - B. Home life.
  - C. Relations with other tribes.
  - D. Comparison with other Indian tribes as to their characteristic traits in manner of life.
- III. People.
  - A. Character of.
  - B. Contrast with other Indians.
  - C. Manner of living.
- IV. Customs.
  - A. Beliefs and traditions.
  - B. Primitive forms of industry.
  - C. Dress.

- D. Method of warfare.
- E. Amusements.

### The Study of Spanish Missions

- I. Location of Missions.
- II. How the missions came to be built—and by whom.
- III. Success and result of the building of them.

### Outline for the Study of the Western Fur Traders

- I. Traders.
  - A. Character of.
  - B. Purpose of.
  - C. Hardships and dangers encountered.
  - D. Manner in which they carried on their work.
- II. Trading posts.
  - A. In the Rocky Mountain section.
  - B. On the Upper Arkansas River.
  - C. Bent's Fort.
  - D. On South Platte River.
  - E. Fort St. Vrain.
  - F. Fort Laramie.
  - G. Western Slope.
  - H. Santa Fe Trail.
- III. Relation of Trappers and Traders with the Indians.
- IV. Decline of Fur Trade.

### The Study of Pioneer Life in Middle West

- I. Colonial Life in the French settlements in the St. Lawrence Valley and along the Great Lakes.
- II. Indian Life in the forests of the Mississippi Valley and region of Great Lakes compared with the Indians and their life in the West.
- III. Stories of Pioneer Life in the Middle West.
- IV. Stories of the Following Explorers:
  - A. Marquette and Joliet.
  - B. Jesuit Missionaries.
  - C. La Salle.
  - D. Ponce DeLong.
  - E. Daniel Boone.
  - F. De Soto.

## Fifth Grade

The history in this grade is based upon Beard and Bagley, "First Book in American History."

- I. The Age of Discovery.
  - (a) The Early Life of Columbus.
  - (b) First Voyage of Columbus.
  - (c) The later voyages of Columbus.
  - (d) The discovery of America.
- II. How to Reach Asia by way of the New Lands.
  - (a) The English King, Henry VII, takes part in exploration.
  - (b) Magellan's voyage around the World.
  - (c) The King of France sends out explorers.
- III. Rivalry between Spain and England.
  - (a) Deeds of Sir Francis Drake.
  - (b) The battle with the Armada.
  - (c) The way prepared for English settlements.

- IV. Finding Settlers for the New World.
  - (a) Founding of Virginia.
  - (b) Virginia's Neighbors.
  - (c) New England Colonies.
    - (1) Winthrop, Roger Williams, Anne Hutchinson, Thomas Hooker.
  - (d) Henry Hudson and The Hudson Valley.
  - (e) William Penn—Pennsylvania and Delaware.
  - (f) James Ogelthorpe and Georgia.
- V. The Clash of Empires in America.
  - (a) French Ambitions and La Salle.
    - (1) Lake Region.
    - (2) Ohio and Mississippi, Louisiana.
  - (b) George Washington and the French and Indian Wars.
  - (c) William Pitt, the great empire builder.
    - (1) General Wolfe and capture of Quebec.
- VI. The Spirit of American Independence.
  - (a) British restrictions and American energy.
  - (b) Samuel Adams—The man of the town meeting.
    - (1) Stamp Tax.
    - (2) Other oppressive laws.
    - (3) Boston Tea Party.
    - (4) First continental congress.
  - (c) Patrick Henry, the orator of the Revolution.
    - (1) Henry and the Stamp Act.
    - (2) Calls upon Virginia to take up arms.
    - (3) Patrick Henry's Oration.
    - (4) Second Continental congress.
  - (d) Edmund Burke—The British friend of America.
    - (1) Burke on taxation and conciliation.
    - (2) England's sympathy with Americans.
- VII. American Revolution.
  - (a) How to win Independence against great odds.
  - (b) Washington as Commander.
    - (1) Bunker Hill.
    - (2) Trenton.
    - (3) Valley Forge.
    - (4) West Point.
    - (5) Saratoga.
    - (6) York Town.
  - (c) Heroes of the Navy.
    - (1) Beginnings of the American Navy.
    - (2) John Paul Jones.
    - (3) John Barry.
  - (d) Thomas Jefferson, the author of the Declaration of Independence.
  - (e) Other civil leaders—Gosden, Morris, Sherman, Schuyler.
  - (f) Benjamin Franklin—an American hero abroad.
    - (1) In England.
    - (2) In France.
    - (3) Peace Treaty.
    - (4) The Constitutional Convention.
- VIII. The Beginnings of a New Government.
  - (a) Union or Quarreling States.
  - (b) The new Constitution.
    - (1) Alexander Hamilton.
  - (c) The New Government of the United States.
    - (1) Washington, the first president.
    - (2) Jefferson and Hamilton clash.
    - (3) John Adams, second president.
- IX. Expansion Westward.
  - (a) Louisiana Purchase.
  - (b) Lewis and Clark expedition.

- X. The Second War with England.
- (a) Madison Driven into the War of 1912.
  - (b) Battle of New Orleans.
  - (c) Peace with England.
  - (d) Opposition to the War in New England.
  - (e) James Monroe and the Monroe Doctrine.
- XI. The Old East and the New West.
- (a) Shall the Eastern States Control the Nation?
  - (b) Andrew Jackson—the Man from the West.
  - (c) Jackson as President.
- XII. Making an Industrial Nation.
- (a) The Inventors.
    - (1) Eli Whitney and the Cotton Gin.
    - (2) Cyrus McCormick and the Reaper.
    - (3) Elias Howe and the Sewing Machine.
    - (4) John Fitch and the Steamboat.
  - (b) Transportation.
    - (1) The Three Uses of Steam.
    - (2) Robert Fulton and the Clermont.
    - (3) De Witt Clinton, the Canal Builder.
    - (4) The Canal and the Railway.
  - (c) The Telegraph.
    - (1) Samuel Morse.
- XIII.
- (a) The Fate of the Southwest.
    - (1) Frontiersmen on the Mexican Border.
    - (2) Western Margin of American Civilization.
  - (b) Texas and the Mexican War.
    - (1) Sam Houston.
    - (2) The Independence of Texas.
    - (3) War with Mexico.
  - (c) California and John C. Freemont.
    - (1) Captain John A. Sutter.
    - (2) Independence of California.
    - (3) California, a Free State.
- XIV.
- (a) The Overland Trail.
    - (1) How can Oregon be Won for the United States?
    - (2) The Fur Traders; John Jacob Oster.
    - (3) Relations with England.
    - (4) The Majors; Jacob Lee, Marcus Whitman.
    - (5) The First Great Migration.
    - (6) The Oregon Boundary Question.
    - (7) Washington.
- XV.
- (a) Slavery.
    - (1) The Clash of Sections.
    - (2) Slavery not Suited to Northern Climates.
    - (3) Slavery Makes two Sections.
  - (b) John Calhoun and the Southern View.
  - (c) William Lloyd Garrison Against Slavery.
  - (d) Henry Clay, the Compromiser.
    - (1) The Missouri Compromise.
    - (2) Clay's Second Great Compromise.
    - (3) The Crisis of 1850.
  - (e) Daniel Webster—"The Union at all Costs."
    - (1) Robert Haynes—Favors Nulification.
    - (2) Webster-Hayes Debates.
- XVI.
- (a) Abraham Lincoln—the Voice of the North.
    - (1) The Life of Lincoln.
    - (2) Lincoln's Early Political Career.
    - (3) The Lincoln-Douglas Debates.

- (b) Lincoln and the Slavery Question.
  - (1) No Interference with Slavery in Slave States.
  - (2) Lincoln Against Slavery in the Territories.
- (c) Election of 1860.
  - (1) Break up of the Democratic Party.
  - (2) Stephen A. Douglas.
  - (3) John C. Breckenridge.
  - (4) Election of Lincoln.
- XVII. Jefferson Davis.
  - (a) How Should Southern Interests be Produced.
  - (b) The Cession and Jefferson Davis.
    - (1) Life of Jefferson Davis.
  - (c) Cession as a Last Resort.
    - (1) Davis for President of the Confederacy.
- XVIII.
  - (a) Will the Union be Maintained.
    - (b) Lincoln's Measure for Saving the Union.
      - (1) The Call to Arms.
      - (2) The Blockade of Southern Ports.
      - (3) Slavery at Stake.
      - (4) Proclamation of Emancipation.
      - (5) The Abolition of Slavery.
  - (c) General U. S. Grant—Commander of the Armies of the United States.
    - (1) Life of Grant and his Military Career.
  - (d) Robert E. Lee—Commander of the Confederate Armies.
    - (1) Life of Lee and his Military Career.
  - (e) The End of Lincoln's Career.
    - (1) Lincoln's Plan for Restoring the Union.
    - (2) The Death of Lincoln.
- XIX. On American Industrial Romance.
  - (a) How to use Electricity for Light and Transportation.
  - (b) Thomas Edison.
  - (c) Electricity for Lighting and Transportation.
    - (1) Electric Lamps.
    - (2) A Central Electric Station.
    - (3) Electric Railroads.
- XX. The New South.
  - (a) Could a Democratic Party be Restored.
  - (b) The rise of Grover Cleveland.
  - (c) Grover Cleveland as president.
    - (1) Civil Service Reform.
    - (2) Hawaiian Islands annexed.
- XXI.
  - (a) United States among the World Powers.
  - (b) William McKinley and the Spanish-American War.
    - (1) Dewey at Manilla Bay.
    - (2) Peace in new Territories.
  - (c) William Jennings Bryan.
  - (d) New Territories in Far East.
    - (1) Phillipine Islands.
    - (2) The Boxer Uprising—China.
- XXII. Women and Human Welfare.
  - (a) Woman's part in the Civil War.
    - (1) Clara Barton and the Red Cross.
    - (2) Francis Willard and Prohibition.
  - (b) Women Winning Voice in the Government.
    - (2) Federal Suffrage Amendment.
- XXIII.
  - (a) President Roosevelt and Modern Questions.
    - (2) President of the United States.
  - (b) William Howard Taft and the Presidency.



XXIV.

- (a) President Wilson and the World War.
- (b) America's part in the World War.
  - (1) League of Nations.
  - (2) The end of the war.

## HISTORY

### Sixth Grade

The purpose of the history in the sixth grade is to provide an intelligent background for a more detailed study of American History. To give some definite impression of the civilization of ancient and modern Europe and the efforts leading to the transplanting of those civilizations to America.

- A. The Dawn of History.
  - I. The Dawn of History.
    - a. Use of fire, stone, knives, axes, bows and arrows.
    - b. Pottery making, spinning and weaving, metal working.
    - c. Agriculture, domestic animals.
    - d. The invention of writing.
  - II. The most ancient civilized people inhabited the fertile crescent which included the Valley of the Nile, a belt north of the Arabian Desert, and the Valley of the Tigris and Euphrates Rivers.
  - III. The Ancient Egyptians.
    - a. Character of their civilization.
  - IV. Babylonians, Assyrians and Persians.
    - a. Characteristics of their civilization.
  - V. The Hebrews.
    - a. Their contribution to civilization.
  - VI. The Phoenicians.
    - a. Their contribution to civilization.
  - VII. Aegean Civilization.
    - a. The earliest in Europe and a forerunner of that of the Greeks.
- B. The Greeks and what we learn from them.
  - I. Ancient Greece.
    - a. Location and natural beauty of Greece.
    - b. Character of Ancient Greek people.
    - c. What the Greeks thought about the world.
    - d. Their Gods and Goddesses and how they worshipped them.
      - 1. Characteristics of the Gods.
      - 2. The lesser spirits.
  - II. Achilles and the War Against Troy.
    - a. Location of Troy.
    - b. Cause of the War between the Greeks and the Trojans.
    - c. How the war was carried on and the part taken by the Gods.
    - d. The activities of Achilles.
    - e. The activities of Hector.
    - f. How the Greeks finally took Troy.
    - g. Important characteristics of the Trojan War.
      - 1. Paris.
      - 2. King Priam.
      - 3. Menelaus.
      - 4. King, Agamemnon.
      - 5. Achilles.
      - 6. Hector.
  - III. Sparta and Athens.
    - a. Location of Sparta and her relations with her neighbors.
    - b. Spartan training and its results.

- c. Location of Athens.
- d. Occupations of her people.
- e. Athenian culture.
- IV. The War of the Greeks and the Persians.
  - a. The extent of the Persian Empire.
  - b. The Greek cities on the Coast of Asia Minor.
  - c. Athens aids the rebellious Greek cities against the rule King Darius.
    - 1. Why Athens helped the Greek cities.
    - 2. Results of their sending aid.
  - d. Preparation for war.
  - e. Battle of Marathon.
    - 1. Size of the Persian army at Marathon.
    - 2. Why the Greek army was not larger.
    - 3. Commander of the Athenians.
    - 4. How the victory was won.
  - f. Xerxes renews the war.
    - 1. Description of Xerxes army.
    - 2. Crossing the Hellespont.
  - g. The battles of Thermopylae and Salamis.
    - 1. The pass of Thermopylae.
    - 2. The heroism of Leonidas and his Spartans.
    - 3. How the Persians took the pass.
    - 4. The strategy of Themistocles.
    - 5. The battle of Salamis.
    - 6. Why Xerxes gave up the war.
- V. Athens Under Pericles.
  - 1. The leadership of Pericles and the government of Athens.
  - 2. The description of Athens; the temples and statues on the Acropolis.
- VI. Socrates, the Philosopher.
  - 1. Athens, the home of great thinkers.
  - 2. Socrates and the Oracle.
  - 3. Socrates' questions.
  - 4. The trial and death of Socrates.
- VII. Alexander, the Great.
  - 1. War between the Greek cities; their conquests by Philip of Macedonia.
  - 2. Alexander's boyhood.
  - 3. How he managed the kingdom.
  - 4. His defeat of the Persians; his plan for his empire.
  - 5. Alexander's death.
- VIII. Spread of Greek Culture.
  - 1. Influence of the Greeks on the world today.
  - 2. How Greek culture was spread.
    - a. Greek cities on the Mediterranean coast.
    - b. Founding of Greek cities in the East.
  - 3. Alexandria, a center of Greek culture.
    - a. Its commerce and wealth.
    - b. Its schools and libraries.
  - 4. Roman conquests of Greek cities.
    - a. Romans adopt Greek culture.
- IX. Early Days of Rome.
  - 1. The Peninsula of Italy.
    - a. Its location, form, climate, civilization, rivers, and early towns and people.
  - 2. Rome, its location and the stories of its founding.
    - a. Romulus and Remus.
  - 3. Growth of Rome under the kings.
  - 4. The establishing of a Republic.
    - a. Its government.
    - b. Horatius at the Bridge.
  - 5. Two classes in Rome, Plebeians and Patricians.



- a. Rights denied the Plebeans.
  - b. Their struggle for full citizenship.
- X. Rome's Wars with Her Neighbors.
  - 1. The attack of the Aequians.
  - 2. Cincinnatus appointed as Dictator.
    - a. Cincinnatus rescues the army.
    - b. His orders, marches, the army's rescue.
  - 3. The Aequians Pass under the yoke.
  - 4. Cincinnatus lays down his power.
    - a. The American society of Cincinnati.
    - b. The City of Cincinnati.
- XI. Rome's Wars with Carthage.
  - 1. Location of Carthage; its sea power, its rivalry with Rome.
  - 2. Hamilcar and his son Hannibal.
    - a. The oath of Hannibal.
  - 3. Hannibal's plans.
    - . His march through Gaul.
    - b. How he crossed the River Rhone.
    - c. Difficulty in crossing the Alps.
  - 4. Hannibal's success in Italy.
    - a. Battle of Cannae.
    - b. How the Roman generals fought Hannibal.
  - 5. Cause of Hannibal's failure in Italy.
    - His recall to Africa.
    - b. Defeat of Carthage at Zama; terms of peace.
    - c. Hannibal's death.
  - 6. Destruction of Carthage.
    - a. Rome rules over the whole Mediterranean World.
- XII. Rome and the Mediterranean World.
  - 1. Roman Territory.
    - a. Spain, Africa, Sicily, the Islands of the Mediterranean, Greece, Macedonia and Asia Minor.
  - 2. Why Roman rule spread.
    - a. Public improvements.
      - 1. Building of aqueducts, bridges, public buildings.
      - b. Roman roads.
        - 1. Construction of Roman roads.
        - 2. Importance of good roads.
        - 3. All roads lead to Rome.
    - 4. Wealth obtained through conquests; Triumphal Procession
      - a. Effects of the conquests on the Roman Generals.
      - b. On the common soldiers.
      - c. On the Roman government.
- XIII. Romans in the West.
  - 1. Julius Caesar.
    - a. Early life and military training.
    - b. His adventures with the Pirates.
    - c. His popularity.
  - 2. Caesar's election to the Counselorship.
    - a. He is made governor of Gaul.
  - 3. His conquest of Gaul.
  - 4. Caesar and the Teutons; his two invasions of Britain.
  - 5. Roman rule and civilization introduced into the West.
- XIV. Rome, the Capital of an Empire.
  - 1. The failure of the government at Rome.
    - a. Caesar becomes master of Rome.
    - b. The enemies of Caesar and his murder.
  - 2. The empire established by Augustus.
  - 3. Public life of the Romans.
    - a. Public games.
      - 1. Chariot Races.
      - 2. Wild beast fights.

3. Gladatorial Combats.
  - b. Daily life of the Romans.
    1. Interior arrangement of a Roman house with furniture.
    2. Education of a Roman boy; the "Boyish Toga"; the "Manly Toga".
- XV. Rome and Christianity.
1. Beginnings of the Christian Religion.
    - a. How Rome regarded the Christmas.
  2. Christian laws under the Roman rule; the spread in the empire.
  3. Christian persecutions under Nero.
    - a. The Catacombs.
    - b. Christian Martyrs, Polycarp.
    - c. Effect of the persecutions.
  4. Organization of the church.
    - a. Priests, Bishops, Arch-bishops, and Popes.
  5. The rise of the Monasteries.
    - a. Hermits and Monks.
- XVI. The Ancient Teutons.
1. Relation of the ancient Teutons to modern people; where they lived.
    - a. Their personal appearance.
    - b. Their lack of civilization.
  2. Teutonic manner of living.
    - a. Clothing, houses, occupations.
  3. Teutonic manner of fighting.
    - a. Relation of the leader to his followers.
    - b. Warlike habits of the Teutons.
  4. Their government and their religion.
    - a. Readiness to learn of other people.
- XVII. The Teutons Invade the Roman Empire.
1. Weakness of the Roman Empire, division into east and west.
  2. The Teutons as heirs to the Romans.
  3. The first invaders; Goths on the Danube.
    - a. Their conversion to Christianity.
  4. The coming of the Huns.
    - a. The flee of the Goths into the Empire.
    - b. Battle of Adrianople and its results.
  5. The character of Alaric.
    - a. His invasion into Italy.
    - b. The sack of Rome.
    - c. The death of Alaric.
    - d. The Goths settle in Spain.
  6. Other Teutons enter the Roman Empire.
  7. Fall of the Roman Empire; the end of ancient history.
  8. The middle ages; the meaning of the term.
  9. The Franks in Gaul.
    - a. What Clovis did for them.
    - b. Conversation of the Franks.
    - c. Extent of Clovis' kingdom.
    - d. Relations of the Franks and Romans.
    - e. Gaul becomes France.
- XVIII. The Reign of Charlemagne.
1. The importance of Charlemagne's reign; what he did for the Franks.
  2. Personal appearance of Charlemagne.
  3. Charlemagne's wars.
    - a. War with the Saxons.
    - b. War with the Lombards.
  4. Charlemagne crowned emperor at Rome.
    - a. Extent of Charlemagne's empire.

- b. Nature of Charlemagne's empire.
    - c. Importance of the revival of the empire in the west.
  - 5. Development and progress under the reign of Charlemagne.
    - a. What Charlemagne did for Education.
  - 6. Empire after the death of Charlemagne.
    - a. Break-up of Charlemagne's empire.
    - b. The permanent results of his work.
- XIX. The Founding of England.
  - 1. Where the English came from; their liking for the sea; how they first came to Britain.
  - 2. The conquest of Britain.
    - a. The legends of King Arthur.
    - b. What became of the Britains.
  - 3. The seven English kingdoms.
    - a. England's local government.
  - 4. The disappearance of Roman civilization and Christianity from England.
    - a. Gregory's interest in England.
    - b. The coming of Augustine.
    - c. Conversions of the English.
    - d. What the Monks did for England.
  - 5. The union of England under the king of Wessex.
- XX. King Alfred and the Northmen.
  - 1. Where the Northmen or Danes came from.
    - a. Founding of Normandy.
    - b. The voyage to the west.
    - c. Discovery of Vinland; what Leif Ericsson had really discovered.
  - 2. Danish attacks upon England.
  - 3. Alfred the Great.
    - a. Warfare with the Danes.
    - b. Alfred's victories and treaties.
  - 4. What Alfred did for England.
    - a. Rebuilds London.
    - b. Strengthens the government.
    - c. Aids industry and learning.
- XXI. The Normans Conquer England.
  - 1. The weakness of England and the strength of the Normans.
  - 2. The Normans invade England.
    - a. Battle of Hastings.
    - b. William, the Conqueror, becomes king.
  - 3. The Feudal System established in England.
    - a. The meaning of "fief", "vassal", "homage", "fealty".
    - b. What the lord owed to the vassal.
    - c. What the vassal owed to the lord.
    - d. How William prevented the lords from becoming too powerful.
  - 4. The benefit upon England of the Norman conquests.
- XXII. King John and the Great Charter.
  - 1. The character of King John.
    - a. Sixth king of England who followed William the Conqueror.
    - b. One of the worst rulers that England ever had.
  - 2. Cause of John's quarrel with the Pope.
  - 3. John's struggle with his Barons.
  - 4. The Great Charter granted.
    - a. John renews the quarrel.
    - b. Importance of the Great Charter.
- XXIII. The Rise of Parliament.
  - 1. Early English assemblies.

2. The difference between the early assemblies and Parliament.
  - a. Representatives first used in local affairs.
  - b. Representatives added to the Great Council.
3. Two sorts of representatives in Parliament.
4. Separation of Parliament into two houses.
  - a. The house of Commons.
  - b. The house of Lords.
  - c. Parliament not yet supreme.
5. The framework of the representative assembly which is to be carried into all the great English Colonies.
  - a. The form used in all self-governing countries.

XXIV. Life of the Middle Ages.

1. The place of the castle in the life of the middle ages.
  - a. Plan of a Norman castle.
  - b. The entrance; outer court; inner court.
  - c. The keep of the castle.
  - d. A castle in time of peace.
    1. The great hall.
    2. Dwellers in the castle.
    3. Training for Knight-hood, the Page, the Squire.
    4. Amusements of the castle folk; falconry, hunting with hounds.
2. The conferring of Knight-hood.

XXV. Life in the Villages.

1. Three classes of society in the middle ages.
2. How the Knights were supported.
3. Position of the Peasants.
  - a. The lords domain and the common lands.
  - b. The peasant's payments to their lords.
  - c. The services which they owed him.
4. Life of the Peasants in the villages.
  - a. Their houses, furniture, food, and clothing.
  - b. Contempt of the nobles for them.

XXVI. Life in the Medieval Towns.

1. The decay of the towns under the Teuton rule.
  - a. The Teutons had never lived in cities in their old homes.
2. Revival of town life in the 10th, 11th, and 12th centuries.
  - a. The towns in Italy, Germany, and France.
  - b. What the towns did for the world.
3. Privileges of the towns.
  - a. Their rights of self-government.
  - b. Struggle within the towns.
  - c. Their independence finally lost.
4. Life in the towns.
  - a. The streets, houses, shops.
  - b. The workmen, the apprentices, the guilds.
  - c. The cathedrals.
5. The Great Fairs of the middle ages.

XXVII. The Church of the Middle Ages.

1. Power of the church in the middle ages.
  - a. Its organization.
    1. Pope, Arch-bishop, and Bishop, Priests.
    2. Why men became Monks.
      - a. The rule of St. Benedict.
      - b. The dress of the Monk.
      - c. Friars and Nuns.
    3. The Monasteries, buildings and lands.
      - a. Plan of a monastery.
    4. Life of the Monks.
      - a. Hours for worship.

- b. Labors of the Monks.
        - c. His service to education.
      - 5. Three vows taken by a Monk.
        - a. Enforcement of the rules.
        - b. Method of becoming a Monk.
- XXVIII. Pilgrimages of the Middle Ages.
1. Why pilgrimages were made.
    - a. Places to which pilgrimages were made.
    - b. Pilgrimages over seas, difficulties and dangers.
  2. Dress of the Pilgrims; what they carried, how they traveled, and where they were entertained.
  3. Completion of a pilgrimage.
    - a. Medals and palm branches.
    - b. Influence of the pilgrimages.
  4. Why men went on pilgrimages.
  5. The effect of the rise and spread of Mohammedanism upon pilgrimages.
- XXIX. The First Crusade.
1. Preparation for the first crusade.
    - a. Pope Urban calls a crusade.
    - b. "Peter, the Hermit", and "Walter, the Pennyless", set out.
    - c. The crusaders reach Constantinople after crossing into Asia Minor.
    - d. The crusaders before Jerusalem and the fall of the Holy City.
      1. The treatment of its defenders.
      2. The crusaders' vow fulfilled.
- XXX. The Crusade of Richard the Lion-Hearted.
1. How the crusaders organized their conquests.
  2. How Palestine was protected against the Mohammedans.
  3. Character of Richard the Lion-Hearted.
    - a. Route taken by Richard and Philip.
    - b. Why the crusade failed.
    - c. Richard's captivity, ransom and death.
  4. Object of the fourth crusade.
    - a. Directed against the city of Constantinople.
    - b. Result of the fourth crusade.
    - c. Venice becomes the chief center of trade between Asia and Europe.
  5. Ending of the crusading movement.
    - a. Why the crusading movement came to an end.
- XXXI. Results of the Crusade.
1. Introduction of new products; manufacturing and inventions from the east.
  2. The love of travel.
    - a. The effects of travel on the minds of men.
  3. Increase in trade.
  4. Growth of cities.
  5. The growth of Venice as a trade city.
  6. Rivalry of Venice and Genoa.
  7. The geography of Asia came to be better known.
    - a. Travels of the Polo Brothers.
- XXXII. All Europe Interested in Explorations and Discoveries.
1. Gutenberg's invention of printing and its results.
  2. Portugal's part in the work of discoveries.
    - a. Prince Henry, Vasco da Gama.
  3. Voyages of Columbus.
  4. Successors to Columbus.
    - a. John Cabot discovers North America.
    - b. Balboa discovers the Pacific ocean.
    - c. Magellan's voyage and what it accomplished.

- XXXIII. Spanish Conquests in America.
1. Cortes leads an expedition to Mexico.
  2. Spain governs Mexico.
  3. The conquest of Peru.
  4. Ponce de Leon discovers Florida.
  5. De Sota discovers the Mississippi.
- XXXIV. Europe's Rivalry in the Colonization of America.
1. English sailors attack Spain in the new world.
  2. French rivalry with Spain.
  3. The Dutch revolt against Spain.
  4. English defeat the Spanish Armada.
  5. English colonization begins.
    - a. Sir Walter Raleigh's attempts at colonizing.

## Seventh Grade

The history in 7B, 7A and 8B is based upon Beard and Bagley, "History of The American People".

- I.\* The Old World Background.
  - A. Our debt to the Old World.
  - B. Conditions in Europe in the fifteenth century.
    1. Differences between eastern and western Europe.
    2. Social classes in Europe; peasants; artisans; traders and merchants; the clergy; nobles; kings.
    3. Development of trade; sea-route to Asia.
- II.\* Early Explorations and Conquests.
  - A. The explorations of the Italians and the Portuguese.
  - B. Columbus, Da Gama, Vespucci, Balboa, and Magellan.
  - C. Spanish conquests in North and South America.
  - D. Early French explorations.
  - E. Early English explorations.
  - F. The conflict between England and Spain.
- III. The Settlement and Development of the Colonies.
  - A. European conditions which led to American colonization.
    1. Religious changes.
    2. The cruel treatment of the peasants.
    3. The development of the art of printing.
    4. The new supply of gold from the Spanish possessions.
  - B. The English colonies.
    1. The colonies first settled by English immigrants.
      - a. Virginia.
      - b. The New England colonies; Plymouth; Massachusetts Bay; Connecticut; New Hampshire.
      - c. Maryland; Pennsylvania; the Carolinas; Georgia.
    2. Other settlements that become English colonies: New ork; New Jersey, Delaware.
    3. Types of settlers in the English colonies.
      - a. Immigrants seeking religious freedom.
      - b. Immigrants seeking relief from poverty.
      - c. Involuntary immigrants—slaves and criminals.
      - d. Bond servants.
  - C. The French settlements and colonies.
    1. The settlements at Quebec, New Orleans, and St. Louis.
  - D. The struggle between the French and the English for the control of the continent.
    1. Differences between the French and English colonial policies.
    2. The three early colonial wars.

\*\*Headings I and II are for the purpose of a hasty review.



3. The final struggle; the French and Indian War in America; the Seven Years' War in Europe.
4. The Treaty of Paris and its results.

E. The Spanish colonies in Louisiana and the Southwest.

F. Russian settlements in the Northwest.

Important names which should be remembered in connection with one or more of the above topics:

Explorers: Columbus, Da Gama, Magellan, Balboa, DeSoto, Coronado, Verrazano, Cartier, Champlain, Marquette, LaSalle, Hudson, Cabot, Raleigh.

Colonial Pioneers: John Smith, William Bradford, John Endicott, Roger Williams, Thomas Hooker.

Proprietors and Governors: Penn, Baltimore, Berkley, Carteret, Lord De la Ware, Oglethorpe, Stuyvesant, Sir Edmund Andros.

Soldiers: Standish, Washington, Braddock, Wolfe, Montcalm.

Important dates: 1492; 1497; 1498; 1519-22; 1588; 1607; 1619; 1620; 1754; 1763.

British sovereigns during the periods of exploration, settlements, and colonization:

Henry VII, 1485-1509.  
 Henry VIII, 1509-1547.  
 Edward VI, 1547-1553.  
 Mary, 1553-1558.  
 Elizabeth, 1558-1603.  
 James I, 1603-1625.  
 Charles I, 1625-1649.  
 Charles II, 1660-1685.  
 James II, 1685-1688.  
 William and Mary, 1689-1694.  
 William III, 1694-1702.  
 Anne, 1702-1714.  
 George I, 1714-1727.  
 George II, 1727-1760.

Puritan Revolution and Cromwell, 1649-1660 George II, 1760-1820.

#### IV. The Condition of the Colonies on the eve of the Revolution.

##### A. Elements of strength in the colonies.

1. The development of the spirit of independence and self-reliance.
2. The growth of the population.
3. The development of farming.
4. The beginnings of manufacturing.
  - a. Manufacturing in the home.
  - b. The iron industry.
  - c. Shipbuilding.
5. The development of trade and commerce.
6. The principal cities.

##### B. Differences between the North and the South.

1. Differences in surface and climate and their relation to differences in social life and customs.
2. Local self-government in New England, the town as the unit of government.
3. The larger units of government in the middle colonies.
4. The county as the unit in the South.

##### C. Likenesses between the North and the South.

1. Few differences in language, religion, and laws.
2. Representative government common to both sections.

##### D. Education in the colonies.

#### V. Causes of the American Revolution.

##### A. The attempt of England to control American trade.

1. Objectionable laws enforced by England after the Seven Years' War.

2. Other objectionable policies of England.
    - a. The decree limiting westward expansion.
    - b. The Stamp Tax.
  - B. The protest of the colonies against taxation without representation.
    1. Patrick Henry's speech.
    2. The Stamp Act Congress.
    3. The Stamp Act repealed.
  - C. More vigorous protests following the passage of the Townshend Acts.
    1. The Boston Massacre.
    2. The Boston Tea Party.
    3. The First Continental Congress.
  - D. English friends of America: Pitt and Burke.
- VI. The War for Independence.
- A. The beginning of the struggle.
    1. Lexington and Concord.
    2. The Second Continental Congress.
  - B. The northern campaigns.
    1. The siege of Boston and the battle of Bunker Hill.
    2. Washington assumes command of the army.
    3. Crown Point and Ticonderoga.
    4. The evacuation of Boston by the British.
    5. The Quebec expedition.
  - C. The Declaration of Independence.
  - D. The Middle states campaigns.
    1. Occupation of New York City by the British forces.
    2. Washington's retreat through New Jersey.
    3. The battles of Trenton and Princeton.
    4. Occupation of Philadelphia by the British forces.
    5. The winter at Valley Forge.
    6. The Burgoyne expedition: Bennington and Saratoga.
  - E. The French alliance.
  - F. The southern campaigns.
    1. Capture of Savannah and Charleston.
    2. Cornwallis's campaign in the South.
      - a. Camden.
      - b. King's Mountain and Cowpens.
      - c. Guilford.
    3. The siege of Yorktown and the surrender of Cornwallis.
  - G. The war at sea: John Paul Jones and John Barry.
  - H. The war in the Mississippi Valley: George Rogers Clark's expedition and the capture of Vincennes.
  - I. The Treaty of Paris.
  - J. Some of the causes of American success in the war.
    1. Washington's character, skill, and leadership.
    2. Franklin's diplomacy.
    3. The work of Robert Morris in financing the war.
    4. The work of the women.
- VII. The "Critical Period" between 1781 and 1789; the Constitution.
- A. Government under the Continental Congress during the Revolution.
  - B. The Articles of Confederation proposed (1777) and adopted (1781).
  - C. New constitutions of the states and their principal provisions.
  - D. Government under the Articles of Confederation.
    1. Discontent throughout the country: Shay's Rebellion.
    2. The Ordinance of 1787, the most important legislation under the Articles of Confederation.



- E. The Constitutional Convention.
- F. The Constitution.
  - 1. Its compromises.
    - a. Between large and small states.
    - b. Regarding the counting of slaves in apportioning representatives.
    - c. Regarding commerce and the slave trade.
    - d. Regarding the direct share of the voters in the government.
  - 2. Contrasts between the Constitution and The Articles of Confederation.
  - 3. The four important powers of Congress.
- G. The adoption of the Constitution.
- H. Washington the first President.

Important names:

Statesmen and Leaders in Civil Life.

| American            | English       |
|---------------------|---------------|
| Patrick Henry.      | William Pitt. |
| Samuel Adams.       | Edmund Burke. |
| James Otis.         |               |
| Benjamin Franklin.  |               |
| Robert Morris.      |               |
| Thomas Jefferson.   |               |
| James Madison.      |               |
| Alexander Hamilton. |               |

| American    | English       |
|-------------|---------------|
| Washington. | Howe.         |
| Greene.     | Cornwallis.   |
| Gates.      |               |
| Schuyler.   | <b>French</b> |
| Jones.      | Lafayette.    |
|             | Rochambeau.   |

Important dates: 1765; 1775; July 4, 1776; 1777; 1778; 1781; 1783; 1787; 1789.

#### VIII. Starting the New Government.

- A. The first amendments.
- B. Hamilton's measures for financing the government.
- C. Opposition to Hamilton's measures: the Whisky Rebellion.
- D. The development of the political parties.
- E. Relations with Europe.
  - 1. Troubles with England due to the French Revolution: Jay's Treaty.
  - 2. Troubles with France.
    - a. The X. Y. X. Mission.
    - b. The "informal war" with France.
- F. Domestic problems growing out of the French Revolution: The Alien and Sedition laws.

#### IX. The Expansion of the New Nation.

- A. The attitude of Jefferson's party toward western development.
- B. The Louisiana Purchase.
  - 1. Reasons for the purchase.
    - a. The desire for more land and for a free water-route to the Gulf of Mexico.
    - b. The danger of French dominion in the West.
    - c. Napoleon's willingness to sell the territory.
  - 2. Results of the purchase.
    - a. Criticism immediately following the purchase.
    - b. Expeditions to explore the new territory.
- C. The Florida Purchase.

#### X. The Organization and Settlement of the Middle West.

- A. Surrender by the older states of their claims to western territory.
- B. The organization of the Northwest Territory: the Ordinance of 1797.
- C. The organization of the region south of the Ohio.
- D. The gateways to the West and the four eras of travel.
- E. The settlement of the Middle West.
  - 1. The settlement of the region south of the Ohio.
  - 2. The settlement of the region north of the Ohio.
  - 3. The movement down the Ohio and Mississippi.
  - 4. The National Road and its effect upon settlement.
- F. The new states.
- G. The life of the people on the frontier.

XI. The Events Leading to the War of 1812 and to the war Itself.

- A. Events leading to the war.
  - 1. War between England and France and its effect on American commerce.
  - 2. Attempts by Congress to remedy the situation.
    - a. The Embargo Act and its results.
    - b. The non-Intercourse Act.
  - 3. The impressment of American seamen.
  - 4. The Chesapeake affair.
- B. The War of 1812.
  - 1. The declaration of war.
  - 2. The attitude of New England: the Hartford Convention.
  - 3. American disasters on land.
  - 4. The naval exploits.
  - 5. Jackson's victory at New Orleans.
  - 6. The Treaty of Ghent.
- C. Political results of the war.

XII. The Spanish-American Republic and the Monroe Doctrine.

- A. The Spanish colonies win their independence.
- B. The Holy Alliance formed: the danger of this alliance to the U. S.
- C. The Monroe Doctrine.

Important Names:

Presidents: Washington (1789-1797), John Adams (1797-1801), Jefferson (1801-1809), Madison (1809-1817), and Monroe (1817-1825).

Political Leaders: Alexander Hamilton and John Jay.

Military and Naval Leaders: Oliver Hazard Perry and Andrew Jackson.

Pioneers and Explorers: Daniel Boone, Meriwether Lewis, William Clark, and Zebulon Pike.

European Leader: Napoleon Bonaparte.

Important dates: 1803; 1812; 1823.

XIII. Political Development between 1815 and 1845.

- A. Important political issues of the period.
  - 1. The protective tariff.
  - 2. Internal improvements.
  - 3. The sale of public lands.
  - 4. The United States Bank.
- B. Political leadership.
  - 1. The administrations of James Monroe and John Quincy Adams.
  - 2. Andrew Jackson's administration.
  - 3. Webster, Hayne, Clay, and Calhoun.
- C. The rise of the Whig party.
  - 1. The campaign of 1840; Harrison and Tyler.
  - 2. Tyler's unpopularity: the Ashburton Treaty.

XIV. The Settlement of the Territory West of the Mississippi.

- A. Missouri, Arkansas, and Iowa.
- B. The Texas problem: the admission of Texas.

- XV. The War with Mexico: Cause, Campaigns and Terms of Peace.
  - XVI. The Settlement of the Far Western Country.
    - A. Oregon, California, and Utah.
    - B. Summary of the far western movement.
  - XVII. The Industrial Revolution.
    - A. England's early leadership in industry.
    - B. The development of manufacturing in America.
      - 1. The cotton industry: the cotton gin.
      - 2. The woolen industry.
      - 3. The invention of the sewing machine.
      - 4. The iron industry: development in Pennsylvania.
    - C. The development of farm machinery.
    - D. Means of transportation and communication.
      - 1. Canals.
      - 2. The steamboat.
      - 3. The railroad.
      - 4. The express business.
      - 5. The telegraph: the Atlantic cable.
      - 6. Ocean navigation.
  - XVIII. The Effect of the Industrial Revolution upon American Life.
    - A. The division of labor and the separation of the worker from his tools.
    - B. Women in the factories, child labor.
    - C. Immigration stimulated to bring new supply of labor.
    - D. The labor movement.
    - E. The growth of the cities.
    - F. Foreign trade.
    - G. The South and the industrial revolution.
  - XIX. The Growth of Political Democracy.
    - A. The struggle for universal manhood suffrage.
    - B. The struggle for women's rights.
  - XX. The Development of Popular Education in the First Half of the Nineteenth Century.
    - A. The religious character and purpose of colonial schools.
    - B. The removal of the schools from the control of the church.
    - C. The development of free elementary schools.
    - D. The development of high schools.
    - E. The development of higher education; state universities.
    - G. The development of the newspapers, magazines, and political pamphlets.
    - H. The early American novels, American poetry.
- Important Names:
- Presidents: John Quincy Adams (1825-1829), Jackson (1829-1837), Van Buren (1837-1841), Harrison and Tyler (1841-1845), and Polk (1845-1849).
- Other Political Leaders: Clay, Webster, Calhoun.
- Pioneers: Moses Austin, Marcus Whitman, Brigham Young.
- Inventors: Slater, Whitney, Fulton, Howe, McCormick, and Morse.
- Educational Leaders: Mann, Barnard, Clinton, Mary Lyon and Emma Willard.
- Labor Leaders: Robert Owen and Frances Wright.
- Writers: Paine, Cooper, Irving, Hawthorne, Poe, Bryant, Longfellow, Whittier, Lowell, and Harriet Beecher Stowe.
- Military Leaders: Taylor and Scott.
- Important dates: 1846-1848.
- XXI. Slavery Becomes a National Problem.
    - A. Constitutional provisions regarding slavery.
    - B. Abolition of slaves in the Northern states.
    - C. The "balance of power" between the slave states and the free states.
  - XXII. Events Leading to the War Between the States.
    - A. The Missouri Compromise.
    - B. The abolition movement and its leaders.

- C. The development of cotton raising in the South.
- D. The Compromise of 1850.
  1. California admitted as a free state.
  2. The Fugitive-slave Law: the "Ungerground Railroad".
- E. The Kansas-Nebraska Act.
  1. The Republican party organized.
  2. Border warfare in Kansas.
- F. The Dred Scott Decision.
- G. The Lincoln-Douglas debates.
- H. John Brown's Raid.
- XXIII. The Political Situation on the Eve of the Civil War.
  - A. The tariff and homestead issues.
  - B. The rise of Lincoln.
  - C. The division in the Democratic party.
  - D. The political campaign of 1860: Lincoln elected.
- XXIV. The Civil War.
  - A. The Secession of seven Southern states and the organization of the Confederate States of America.
  - B. Divided opinion in the North: the proposed Crittenden Compromise.
  - C. Lincoln's first inaugural.
  - D. Fort Sumter surrendered.
    1. The North aroused.
    2. Four additional states join the Confederacy.
  - E. Preparations for war: relative advantages of the North and South.
  - F. The campaigns of 1861 and 1862.
    1. Early Union reverses in the East.
    2. Union successes in the West.
  - G. The Emancipation Proclamation.
  - H. The War on the water.
  - I. The campaigns of 1863.
    1. Renewed disasters in the East.
    2. The battle of Gettysburg.
    3. Vicksburg surrendered.
    4. The battles of Chickamauga and Chattanooga.
  - J. The campaigns of 1864 and 1865.
    1. Grant in command of all Union armies.
    2. Sherman's march.
    3. Grant in Virginia.
  - K. The assassination of Lincoln.
  - L. The cost of the war.
  - M. Women and the war.
- XXV. Reconstruction in the South.
  - A. Problems of reconstruction.
  - B. The Fourteenth Amendment to the Constitution.
  - C. Military rule in the South and its consequences.
  - D. The struggle between President Johnson and Congress: the impeachment, trial, and acquittal of Johnson.
  - E. The campaign of 1869: Grant elected.
  - F. The Fifteenth Amendment.
  - G. The rule of the "carpet-baggers"; the Ku Klux Klan.
  - H. Laws depriving the negro of the vote.

Important Names:

Presidents: Taylor and Fillmore (1849-1853), Pierce (1853-1857), Buchanan (1857-1861), Lincoln (1861-1865), Lincoln and Johnson (1865-1869), Grant (1869-1877).

Other Political Leaders: Davis, Douglas, Garrison, Fremont, Seward, Alexander H. Stephens, Greeley.

Military and Naval Leaders: Grant, Lee, Sherman, McClellan, "Stonewall" Jackson, Sheridan, Johnston, Farragut, Meade, Hooker, Thomas, Early.

Important dates: 1820; 1850; 1854; April 14, 1861; January 1, 1863; July 1-3, 1863; April 9, 1865.

- XXVI. The Rise of the New South.  
A. The situation at the close of the Civil War.  
B. The reconstruction of the planting system.  
C. The development of farming.  
D. The industrial Revolution in the South.
- XXVII. The Growth of the Far West.  
A. The Far West in 1860.  
B. New Western states and territories.  
C. The problem of the public land.
- XXVIII. The Triumph of Industry.  
A. The development of mining and manufacturing.  
B. The development of transportation: railroads and ships.  
C. The army of industry: inventors, business men, wage earners.  
D. The results of industrial development.  
1. Development of the export trade.  
2. Disappearance of the frontier.  
3. Business and industry gain on farming.  
4. The growth of the cities.  
5. Evils of industrial development.
- XXIX. Immigration.  
A. Principal sources of immigration before 1890.  
1. Early immigration.  
B. Later changes in immigration.  
1. The influx from Southern Europe.  
2. Settlement of immigrants in the cities.  
3. The enormous increase in immigration.  
4. Many immigrants not permanent.  
C. Efforts to restrict immigration.
- XXX. Combinations of Capital and Labor.  
A. Competition leads to the formation of "trusts".  
B. The results of combinations of capital.  
1. The "soulless" corporation.  
2. Protective organizations of employees.  
3. Employers' organizations.  
C. The great strikes.  
D. The rise of Socialism.
- XXXI. Parties and Political Issues.  
A. The Republican and Democratic parties.  
B. The tariff and income-tax issues.  
C. The currency problem.  
D. Other political problems and issues.
- XXXII. Foreign Affairs.  
A. Controversies with Great Britain.  
B. Controversy with Germany over Samoa.  
C. The Hawaiian question.  
D. The growth of foreign trade.
- XXXIII. The Spanish-American War and the Boxer Difficulties.  
A. The Cuban revolt and the destruction of the Maine.  
B. The war with Spain.  
C. The results of the war.  
D. Military activities in China.  
E. Imperialism a political issue.
- XXXIV. Advances in Popular Education.  
A. Development of schools and colleges.  
B. The growth of vocational education.  
C. Educational extension.  
D. The higher education of women.  
E. Other educational agencies.

Important Names:

Presidents: Johnson, 1865-1869; Grant, 1869-1877; Hayes, 1877-1881;

Garfield and Arthur, 1881-1885; Cleveland, 1885-1889; Harrison, 1889-1893; Cleveland, 1893-1897; McKinley, 1897-1901.

Other Political Leaders: Tilden, Blaine, Bryan.

Inventors: Edison, Bell, Wilbur and Orville Wright.

Labor Leaders: Debs, Gompers.

Leaders of Business and Industry: Rockefeller, Carnegie, Morgan.

Military and Naval Leaders: Dewey, Sampson, Schley, Shafter.

Important dates: 1877, 1894, 1898.

XXXV. The New Democracy.

- A. Causes of the increasing interest in the machinery of government.
  - 1. Popular education.
  - 2. Wrong doing on the part of public officers.
  - 3. Criticism of faithless officials.
  - 4. Problems of the cities.
  - 5. The education and employment of women.
- B. Political reforms.
  - 1. Civil-service reform.
  - 2. Ballot reform.
  - 3. The initiative, referendum, and recall.
  - 4. The "commission" form of city government.
  - 5. The "city-manager" plan.
  - 6. Reforms in the organization of political parties.
  - 7. The direct primary.
  - 8. Woman suffrage.

XXXVI. The Early Years of the Twentieth Century.

- A. Roosevelt a new type of president.
- B. The conservation movement.
  - 1. Its leaders.
  - 2. The reclamation Act.
  - 3. The Forest Reserves.
- C. The Panama Canal.
  - 1. Early history.
  - 2. Treaty with Great Britain.
  - 3. Dispute over routes.
  - 4. The Panama "revolution" and the cession of the Canal Zone.
  - 5. The building and opening of the canal.
- D. Foreign affairs.
  - 1. The Treaty of Portsmouth.
  - 2. The journey of the fleet around the world.
- E. The election of 1908.
- F. Taft's administration.
  - 1. Tariff revision and the income tax.
  - 2. Postal savings banks.
  - 3. The parcel post.
  - 4. Dissolution of the "trusts".
- G. The campaign of 1912.
  - 1. Dissatisfaction with Republican rule.
  - 2. The organization of the Progressive party.
  - 3. The nomination of Woodrow Wilson by the Democrats.
- H. Wilson's first administration.
  - 1. New laws: tariff, income tax, anti-trust, Federal Reserve banks.
  - 2. Troubles with Mexico.
    - a. Civil war in Mexico.
    - b. The Vera Cruz expedition.
    - c. The difficulties with Villa.
  - 3. American protectorates in Haiti and San Domingo.
  - 4. The purchase of the Virgin Islands.

XXXVII. The Great War.

- A. Europe on fire.



- B. American neutrality.
  - 2. Reasons for American neutrality.
  - 1. The President's proclamation.
  - 3. Difficulties in the way of strict neutrality.
- C. The submarine outrages.
  - 1. The Lusitania torpedoed and sunk.
  - 2. America's protest and Germany's agreement to modify her practices.
- D. The campaign of 1918: President Wilson reelected.
- E. War with Germany and Austria.
  - 1. Germany renews unrestricted submarine warfare.
  - 2. German intrigue in the United States.
  - 3. War declared.
- F. The German Autocracy.
  - 1. Nature of the German empire.
  - 2. Prussia practically an absolute monarchy.
  - 3. The Hohenzollern rule and its dreams of world domination.
  - 4. The need of crushing German militarism.
- G. A democracy at war.
  - 1. The draft.
  - 2. War taxes.
  - 3. National control of food, fuel, and transportation.
  - 4. Adjustment of industrial disputes.
  - 5. Encouragement of ship building.
  - 6. Soldiers' insurance.
  - 7. Americans on the high seas and on the battle front.
  - 8. Steps leading up to the armistice.

Important Names:

Presidents: Roosevelt (1901-1909), Taft (1909-1913), Wilson (1913).

Important dates: 1914; April 6, 1917; Nov. 11, 1918.

## Eighth Grade

### Elementary Social Science

The purpose of this course in the last half of the eighth grade is to develop an intelligent interest in the practical phases of social, civic and economic questions and to establish the point of view that will enable pupils to examine existing conditions and to consider the problems that they suggest.

- I. Some Elementary Economic Facts.
  - A. What we know about our wants.
    - 1. Individual wants.
    - 2. Community wants.
  - B. The satisfaction of economic wants.
    - 1. An opportunity to help in the production of wealth.
    - 2. An opportunity to share in the wealth that has been produced.
  - C. Wealth and Poverty.
    - 1. Wealth has to be produced.
    - 2. Possessions of wealth and ability to control the means of production may lead to wealth.
    - 3. Absolute lack of both makes for poverty.
  - D. Agencies of production.
    - 1. Land.
    - 2. Labor.
    - 3. Capital.
    - 4. Management.
    - 5. Man is wealthy because he can control one or more of these agencies or is poor because circumstances do not permit him to do so.

- E. Property.
    - 1. Real Estate.
    - 2. Personal Property.
  - F. The economic ideal.
    - 1. The ideal economic community is that in which the general economic level is reasonably high rather than where some have great wealth and others are suffering extreme poverty.
- II. Land.
- A. Private ownership of land.
    - 1. Deeds and titles.
    - 2. Free public lands.
  - B. Private ownership has hastened civilization.
    - 2. Has taught men how to live at peace with each other.
    - 3. Has helped to keep us more stable.
  - C. Private ownership in land brings wealth.
    - 1. Sale.
    - 2. Rental.
    - 3. Farming.
- III. Labor.
- A. Earning a living.
    - 1. Working for one's self.
    - 2. Working for an employer.
  - B. Slave labor and free labor.
    - 1. Free labor is labor given by one who is free to choose what he will do and for whom he will work.
  - C. Employers and employees.
  - D. Rewards of labor.
    - 1. Opportunity to work.
    - 2. Increasing earning power.
    - 3. Leisure.
    - 4. Satisfaction.
    - 5. Safety in old age.
- IV. Capital.
- A. What is capital.
    - 1. Money not the same thing as capital.
    - 2. The use to which money is put determines whether it is or is not capital.
    - 3. Money is capital only when it is used in production or when it is available for production.
  - B. The Capitalist.
    - 1. What is a capitalist.
    - 2. Popular conception of a capitalist.
    - 3. The right conception of a capitalist.
  - C. Capital as important as labor.
    - 1. Capital and labor the two necessary elements of production should bear relation to each other such as we see in other pairs of words such as "friend and companion," "peace and plenty," "light and liberty," "safety and happiness," "union and strength."
  - D. The power of capital must be highly regarded.
    - 1. We must have as fair a distribution of wealth and means of getting it as is possible.
    - 2. Need for cheaper money.
    - 3. The Federal Farm Loan Act.
  - E. The importance of saving.
    - 1. Capital means saving and investment.
- V. Management.
- A. Why management is necessary today.
  - B. Representatives of management, representatives of labor, representatives of capital.
  - C. Large industries and extensive business enterprises are



coming to be managed by representatives of capital and labor.

- D. Management through the control of money.
  - 1. By means of banks.
  - 2. By means of stock companies.
- E. Management through control of market opportunities.
  - 1. By means of combination.
  - 2. By means of special privileges.
- VI. The Modern Business of Production and Distribution.
  - A. Modern business—production.
    - 1. Farming, mining, lumbering, grazing, fishing.
    - 2. Manufacturing the finished product.
  - B. Distribution.
    - 1. Transportation.
    - 2. Selling to the consumer.
  - C. The modern farm.
    - 1. Extensive farming—the farm equipment and co-operation.
    - 2. Conditions of labor in extensive farming.
    - 3. Intensive farming—Location and co-operation.
    - 4. Intelligent labor needed—agricultural education profitable.
  - D. A modern factory.
    - 1. The building and mechanical equipment.
    - 2. The employees.
    - 3. The product produced.
  - E. The railroads.
    - 1. Financing the railroads.
    - 2. Interstate regulations.
    - 3. Interstate commerce commission.
    - 4. The common carrier.
    - 5. Intra state regulations.
  - F. The modern department store.
    - 1. The building.
    - 2. The employees.
- VII. Some Elementary Social Facts.
  - A. The social sciences.
    - 1. Sociology.
    - 2. Political Science.
    - 3. Economics.
    - 4. History.
  - B. Society controls all for the benefit of all.
    - 1. Society must regard both the individual and the compensation of the individuals.
  - C. Methods of control.
    - 1. Control by laws, customs and institutions.
    - 2. Society has two means for promoting its own welfare.
      - a. Compulsion and persuasion.
      - b. Prevention of ignorance, poverty, disease and crime.
- VIII. Public Education—the Cure for Ignorance and Poverty.
  - A. Universal education needed for democracy.
    - 1. Importance of literacy.
    - 2. Importance of ability to earn a living.
  - B. Compulsory.
    - 1. Compulsory school attendance.
    - 2. Child labor laws.
    - 3. Compelled support of public schools.
  - C. Education through persuasion.
    - 1. Public and private schools.
    - 2. The elementary school.
    - 3. The secondary school.
    - 4. The evening school.

- 5. The continuation school.
- D. Other means of free, public education.
  - 1. Libraries.
  - 2. Museums.
  - 3. Art Galleries and exhibits.
  - 4. Extension departments.
- IX. Promotion of Public Health—a Cure for Diseases.
  - A. An ancient enemy.
    - 1. Disease.
  - B. Health and Democracy.
    - 1. The necessity for health among all its members.
  - C. Securing health by compulsion.
    - 1. Compulsory medical attendance.
    - 2. Compulsory segregation of diseases.
    - 3. Prohibition of acts that endanger public health.
    - 4. Proper maintainance of unsanitary conditions.
  - D. Securing health by persuasion through health departments.
    - 1. Vital statistics.
    - 2. Inspectors.
    - 3. Hospitals.
    - 4. Distribution of information.
    - 5. Public health nurses.
  - E. State regulations.
    - 1. The workman's compensation law.
    - 2. Acceptable prevention.
  - F. National health measures.
  - G. Individual responsibility.
- X. Promotion of Morality—the Cure for Crime.
  - A. Dealing with the wrong-doer.
    - 1. Restraint and punishment.
    - 2. Proper methods of punishment.
  - B. Agencies for investigating the law.
    - 1. The courts.
    - 2. Police powers.
  - C. Reformation of the wrong doer.
    - 1. Due to social and economic conditions.
    - 2. Duty towards philanthropic organizations.
      - a. United Charities.
      - b. Children's aid societies.
      - c. National child aid committee.
      - d. Y. M. C. A.
- XI. A Few Facts of Political Science.
  - A. Political Science.
    - 1. A study of the principles of government.
  - B. Constitutional rights.
    - 1. The right of self government.
    - 2. The right of acquiring and holding property.
  - C. How society governs itself.
    - 1. Self government.
    - 2. Representative government.
    - 3. Federal government.
    - 4. State government.
    - 5. Local government.
  - D. The branches of government.
    - 1. The legislative department.
    - 2. The judicial department.
    - 3. The executive department.
  - E. Important functions of the government is to carry on the problems of the nation.
    - 1. Direct taxes.
    - 2. Indirect taxes.
    - 3. Federal taxes.

4. State and local taxes.
- F. An important feature of federal import customs.
  1. Protective tariff.
  2. Tariff for revenue.
  3. Business and politics.

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| Colonial Days.....                                | Gordy               |
| American Indians.....                             | Starr               |
| Four American Indians.....                        | Whitney             |
| Camps and Firesides of the Revolution.....        | Hart                |
| Stories of Useful Inventions.....                 | Forman              |
| A History of the United States.....               | Gordy               |
| The Winning of the West.....                      | Roosevelt           |
| Men Who Made the Nation.....                      | Spark               |
| Expansion of the American People.....             | Spark               |
| American Colonial History.....                    | Ashley              |
| A History of the United States.....               | Bourne and Benton   |
| Colonial Days in Old New York.....                | Earle               |
| How Our Grandfathers Lived.....                   | Hart                |
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# Home Economics \*

## AIMS OF THE COURSE:

1. To dignify the labors of the home.
2. To teach the proper selection of materials used in the home.
3. To teach the wholesome and economical use of these materials.
4. To establish sane standards of living — including simplicity, economy, cleanliness and forethought.
5. To conserve human life and energy.
6. To insure peace and happiness in the homes of the future if not of the present.

## THE SCOPE OF THE WORK:

1. Clothing:  
The selection, purchase, making, repair, care, cleaning, and laundering of clothing.
2. Foods:  
The selection, purchase, preparation, cookery, serving, keeping, refrigeration and economic uses of foods, and the care of utensils.
3. Household Management:  
The arrangement, use, care, furnishings and textiles for the kitchen, dining room, living room, bedroom and bath room.
4. Nursing.
4. Nursing:  
The general care and feeding of children.  
Principles of home nursing.  
Diseases common to children.  
Infant mortality.
5. Shelter or Housing:  
Principles of location, renting or building, heating, lighting, ventilation, plumbing, drainage, furnishings.
6. Personal Hygiene:  
Care of skin, hair, eyes, nails.  
When, how much, and what food to eat.  
Digestion of food.  
Baths.  
Shoes.  
Hygiene of Clothing.  
Physical Exercises.

## TIME ALLOTMENT AND SYNOPSIS OF THE WORK:

### Fifth Grade.

#### Subject Clothing:

1. Making of simple articles.
2. Care and repair of clothing.
3. Laundering articles made.
4. Personal hygiene.

### Sixth Grade.

Domestic Science—Two days a week—50 minutes per day.

Domestic Art—Three days a week—50 minutes per day.

“Clothing”—The thought centers about any of the following:

- A. A cooking outfit.
- B. A set of underwear.
- C. Articles for a bedroom.

Subjects to be considered for the working out of “A”, “B”, and “C.”

1. Selection and buying of appropriate material.
2. Suitability of styles.
3. Cost.
4. Making.
5. Care and repair.
6. Laundering and removal of stains.

\*This outline prepared by Miss Elizabeth Clasbey, Assistant Professor Household Science, Colorado State Teachers College.

## 7. Hygiene of clothing.

### "Foods."

The problem centers about the preparation and study of foods adapted to simple suppers.

Subjects to be considered:

1. Foods suitable for the evening meal.
2. Buying and preserving of food materials.
3. Preparing cooking and serving of
  - a. Beverages
  - b. Fruits
  - c. Vegetables
  - d. Cereals
  - e. Eggs
  - f. Quick breads
  - g. Bacon or ham
4. Canning
5. Making supper menus.
6. Serving type suppers, estimating cost per person.
7. Visit markets.

### "House Management."

The problem or project centers about a bedroom.

1. Furnishings
  - a. Essential articles.
  - b. Suitability of style.
  - c. Arrangement.
  - d. Appropriate decorative features.
2. Care.
  - a. Care and making a bed.
  - b. Ventilation.
  - c. Cleaning.
  - d. Dusting.
  - e. Care, order and arrangement of closet and bureau drawers.

## Seventh and Eighth Grade (required in either the seventh or eighth).

Domestic Science—Two 50 minute periods per week.

Domestic Art—Two 50 minute periods per week.

"Clothing"—The problem centers about any of the following:

- A. Articles for night wear.
- B. A gynasium suit.
- C. Dress and accessories for school wear.
- D. Curtains and linens for the dining room.
- E. O unit not used in Grade six.

Subjects to be considered in working out of "A", "B", "C", "D", "E".

1. Selection and buying of material.
2. Suitability of styles.
3. Study and use of patterns.
4. Making.
5. Care and repair.
6. Laundering.
7. Economic features.
8. Any unit not previously studied.

### "Foods."

The problem or project centers about the study and preparation of foods adapted to simple luncheons.

Subjects to be considered:

1. Foods suitable for luncheon.
2. Selection, buying and preserving of materials.
3. Preparing, cooking and serving of
  - a. Soups
  - b. Meats
  - c. Vegetables
  - d. Salads
  - e. Breads

- f. Relishes
- g. Deserts
- 4. Canning and preserving.
- 5. Making luncheon menus.
- 6. Serving type luncheons, estimating cost per person.

“House Management.”

The problem or project centers about the kitchen and bath room.

- 1. Furnishings.
  - a. Essential articles.
  - b. Practicability and efficiency.
  - c. Arrangement.
  - d. Appropriate decorative features.
- 2. Care.
  - a. Ventilation.
  - b. Cleaning.
  - c. Dusting—Care, order arrangement of pantry linen closet and medicine cabinet.
  - d. Care of plumbing.

“Child Nursing.”

The problem or project centers about

- 1. Foods of infants and children.
- 2. Clothing of infants and children.
- 3. Rest and sleep of infants.
- 4. Bathing.
- 5. Cries—Exercise of infants.

Shelter or Housing:

The problem centers around

- 1. The principles of location.
- 2. Renting or building.
- 3. Heating—lighting.
- 4. Plumbing—drainage.
- 5. Furnishings.
- 6. Family budget.

At the end of three years the pupils should be able to buy, make, repair and care for most of her wardrobe; plan, buy and prepare simple meals; understand and assist in the care and management of the house; and assist in the care of infants, children, and invalids. This may be accomplished by intensive work in clothing, foods, household management, nursing and housing.

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# Kindergarten

The work in the kindergarten is based on the seasons and festivals and the interests of the children. The children learn to play and work together, meeting the social instinct, which is so prominent between the ages of four and six. They are taught to do by doing, and thus form good habits for future years.

## 1. Music:—

The cultivation of musical feeling through simple vocal and instrumental selections. Rote songs for games, seasonal and incidental occasions; clear articulation and enunciation in speech and song. Recognition of simple music presented in different ways.

## 2. Literature and Language:—

Conversations relating to daily experiences of the child in the home, in the natural observations and excursions, with illustrations through pictures and objects. Teaching of correct English through conversation and stories. Stories possessing dramatic possibilities and literary value, including Mother Goose rhymes and jingles, short poems, fairy stories, animal stories, fables and realistic stories. These are carefully selected, suited to the age of the child, and may be orally reproduced.

## 3. Physical Exercises:—

Marching and rhythmic exercises.

Plays and games and dramatization.

Free play indoors and on the playground.

## 4. Nature Study:—

Excursions to different parts of the college campus, observations and use of nature materials, care of fish and plants, work in school garden and garden boxes for the windows.

## 5. Handwork:—

The use of plasticine and clay, water colors, crayola, chalk at the blackboard. Use of scissors and paste and paper folding. The use of hammers, learning to pound nails in wood, making a few real play-things.

## 6. Block Work:—

Use of Froebel's enlarged materials, use of some of the Montessori apparatus for the beginning classes. Use of Hill-Scheonhut floor blocks and wooden dolls. Use of miscellaneous blocks and materials which are adapted to the child. Use of sand-table.

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# Manual Arts

There is practically no basis of commonly accepted theory or practice on which to form a course of study. In other words there is no common understanding of the purpose and no common practice of instruction in the manual arts as exists in most of the older academic subjects. At least eight different objectives should determine the work in manual arts:

1. To develop handiness.
2. To promote the immediate carrying over of ideas into action.
3. To help encourage special interests and aptitudes is important for vocational guidance.
4. To provide a means for developing technical skill.
5. To provide a means for imparting technical knowledge.
6. To enable the pupil to apply the test of practice to some of his thinking.
7. To interest in school work those pupils to whom the traditional studies do not appeal strongly.
8. To create interest in the arts and industries without any reference to their vocational significance.

## WOOD WORK \*

In this course it is assumed that the fifth grade is the beginning grade in this work but it is not to be taken as being the exact beginning for, in many instances, students who have had no previous woodworking, are taken into the other three grades.

### Fifth Grade

In this grade the pupil is to get his first introduction in the art of handling tools and in the use of such materials as are used in the school shop.

The pupil is taught the names and uses of such tools as saws, planes, hammers, gauges, squares, chisels, etc.

Samples of some few of our common lumbers are introduced and the student is taught how to tell the different kinds of lumber shown.

The first lessons in handling tools embraces the use of such tools as saws, planes, try squares, gauges, chisels, etc. The first exercises should take up such work as the facing, jointing and squaring of medium sized pieces of lumber. After this has been accomplished to a fair degree some simple project can be introduced; these should consist of not more than from one to three pieces. For example: Such articles as pencil sharpeners, garden stakes, broom holders, spool holders, paper files, small shelves, etc. In some cases where the student is large and strong and shows the ability much more elaborate work can be taken up.

The student should be taught from the start to respect tools and to regard them as friends.

Practical Characteristics of Projects.

1. Processes must be varying.
2. They must be simple and therefore easily comprehended and such as may be applied by the pupils themselves without too much technique and oversight by the teacher.
3. The projects must be of such a nature that the pupils can judge readily as to the degree of excellence of the results attained.
4. The projects must be such as can be completed in a reasonably short time.
5. They must be such as can be designed or modified easily by the children themselves so that each pupil may have what amounts to an individual problem.

\*This outline prepared by C. M. Foulk, Professor of Manual Training, Colorado State Teachers College.

## Sixth Grade

The sixth grade work should begin by carefully reviewing the work done in the fifth grade. A more elaborate study should be made of different kinds of lumber and this coupled with a study of nails, brads, screws, etc.

In the study of nails the pupil should be taught how to know the different kinds of nails such as spikes, common nails, casing nails, finish nails and also how to determine a nail by the common term "penny."

The sixth grade pupil should begin to branch out in the use of such tools as bevels, mortice gauges, compasses, coping saws, etc.

Short talks on shop discipline should begin in the sixth grade.

The sixth grade pupil should begin to sharpen a few simple tools such as plane irons, chisels, etc.

The regular shop work should be begun by a short course in the construction of a few simple joints and later followed up with projects which require the making mortice dado and lap joint. These projects might consist of such articles as book racks, book ends, foot stools, match safes, knife trays, tool boxes, flower boxes, etc.

1. Modern reform schools.

D. Prevention instead of cure.

E. Personal responsibility.

## Seventh Grade

The seventh grade students should be given a thorough drill on how to find projects on which they can work. These can be gathered from a study of the room, the school, the farm and the students own needs.

The pupil should make a drawing of his project and be allowed to use some of his own ideas and these coupled to the ideas of the teacher. This method trains the student to think out a problem and at the same time he learns to work according to given instructions.

In the seventh grade considerable stress should be laid on the finishing of the articles constructed. The use of stains, shellacs, varnish, paint, etc., should be taken up and made an important part of the work of this grade.

Practical Characteristics of Protects.

The work of this grade should be carried on in such a way as to reduce class instruction to a minimum and consequently to afford considerable latitude to individual pupils in the choice of projects. In those instances models should be selected from an approved list. The instructor being careful to see that each model is well adapted to the abilities and needs of the individual pupil in question. Community and group work should be encouraged and visits to industrial plants should be contemplated in the plan of work.

## Eighth Grade

The work in the eighth grade should begin with a study of shop mathematics. This should consist of problems in computing the number of board feet in different kinds of lumber, computing the amount of lumber necessary to construct different articles. The use of fractions in the laying out of a piece of work and the keeping of an accurate account of the student's own work.

In this grade each student should be required to keep all his own edge tools in working condition. The application of the steel square should enter into many of the problems in the work of this grade.

Particular stress should be placed on accuracy in laying out and the execution of work.

Joining, tonguing and grooving, and gluing should be an important part of the eighth grade work.

Suitable projects for this grade might be such articles as fern stands, tabourettes, magazine racks, clock shelves, doll furniture, picture frames, bird houses, poultry fixtures, dog houses, kites, etc.

## Printing

The aims of the work in printing, though prevocational, is to teach the fundamental principles of the trade and through typographical construction—paragraphing, capitalization, punctuation, spelling, accuracy, and division of words—better English. In the printshop the pupil is trained in type setting, proofreading and handling of the press. In addition to “straight copy” he assists in job work, tabular composition, commercial forms, and some display work which requires a knowledge of values and relation of paper and inks; cutting stock, involving mathematics; and design for which he must understand definite art principles. In studying the principles of design in printing he learns to distinguish between good and bad printing.

## Book Binding

Bookbinding of an elementary nature—binding small volumes in one-fourth leather, in full cloth and in buckram; making photograph books, note books and small leather articles. The underlying idea in this course is to give children ideas regarding the nature of a book and the technique involved in a completed piece of binding. They, also, gain an appreciation of bookbinding as an art and the relation of bookbinding to the other arts. Besides the binding of books the children are given an opportunity to work on objects of interest to them, to their families or friends, or upon objects that may have a particular, or general, value to them.

# MUSIC

## First Grade

Simple rote songs; individual voice and ear training; recognition of repeated phrases; application of singing names; development of rhythm; individual and group singing.

## Second Grade

Singing of simple rote songs; individual voice and ear training; recognition of two and three part rhythm; recognition of note value; simple phrase singing from phrase card and blackboard; singing from notation; books in hands of children. (Book I—Progressive Series); individual and group singing.

## Third Grade

Rote songs suitable to grade; individual voice and ear training; reading of simple songs from staff in keys of C, F, G, Bb, D, E6, A, A6, E; individual singing. (Book I, Progressive Series).

## Fourth Grade

Book II, Progressive Series; rote songs suitable to grade; naming of staff degrees; naming of keys; rapid and accurate sight reading; ear training; introduction of sharp and flat chromatics; individual singing.

## Fifth Grade

Book II, Progressive Series; progressive continuation of previous work; continues study of sharp and flat chromatics; study of major scales; songs in minor; introduction of two part singing; individual singing.

## Sixth Grade

Book III, Progressive Series; Study of song forms; one, two and three part singing; study of minor scales; simple modulation; chord formation.

## Seventh and Eighth Grade

Chorus work, glee clubs, and music appreciation. The Seashore music tests are given to determine music ability.

# Penmanship

The fundamental principles underlying penmanship are:

1. In judging the penmanship of pupils the method of writing—penholding, movement, ease, speed—should be considered as well as legibility and form.

2. A moderate slant is better than vertical writing. Uniformity of slant is more important than conformity to a particular degree of slant. the fundamental movements, with the fingers acting as assistants, is

3. A method of writing by which arm movements are used for productive of better results than a method that makes use of the fingers alone.

4. Copying is not a good method of teaching penmanship. There should be systematic instruction in word and letter forms, in pen holding and movement, following by practice. The child should be taught to study and analyze the form he is producing.

5. To establish desirable habits in writing the instruction given in handwriting lessons must be applied not simply in those lessons but at all times in written work.

The grade given in penmanship should be based upon the quality of the work which is turned out in the other subjects as well as that which is produced in the writing lesson.

6. The teacher should herself practice a correct method of writing. If she does not exemplify the methods she is teaching, pupils have little reason to adopt them.

7. The individuality of pupils should be respected in teaching writing as in teaching all other subjects.

## Practice Periods

To secure desirable results in writing an adequate amount of time must be devoted to it. The same amount of time divided into rather short periods is more effective than if it is all expended in long periods. With the child in the earlier grade ten minutes is probably the best length of period, and the upper grades from twenty to thirty minutes.

## The Grades

The characteristics of the child make the acquirement of writing a difficult matter for him and one which is attended with considerable nervous strain. In the beginning the requirements for speed and accuracy should be made very low. At the beginning the writing should be done on the blackboard. This may very profitably be started in the second grade. When the child first used paper he should write with large letters, the pencil should be large and the lead smooth. As the child grows older and gains in skill, the writing may be gradually decreased in size and may become gradually more precise. In grades four to six the child should begin formal drills. The development of skill should be accomplished in two or three years.

## Tests

Children should be taught to trace their progress in both quality and speed. Each child should be compared with his own past record rather than with that of other pupils and this should be expressed in a form as definite and objective as possible. The best means to accomplish this is by the use of handwriting scales. Interest in writing may be kept alive by frequent use of tests for form, speed and fluency. The pupils should become familiar with the use of the scales and with the standards appropriate to their respective grades.

The following scales are of value:

Ayres, "Scale for Measuring the Handwriting of School Children." Freeman's series of charts in which the progressive degrees of excellence in each of the main elements of form are illustrated. Starch—Handwriting Scale. Lister's Handwriting Scale. The Gettysburg edition of the Ayres Scale. Thorndike—Handwriting Scale.

## Eight Essential Steps in Teaching the Palmer Method\* of Writing

The Three Stages into which these Eight Essentials Steps should be divided:

### FIRST STAGE

- 1st Step—Posture: 1st, of body; 2d of feet; 3d of arms; 4th of head.
- 2nd Step—Muscular Relaxation: Showing pupils how to overcome the natural tendency to muscular rigidity. Opening and closing fingers, raising and lowering arms, and other calisthenic exercises to be used in the beginning stages, and later when necessary.
- 3rd Step—Penholding: Follow physical training lines. Because of the differences in size and construction of hands, length of fingers, etc., it is not well to try to make all pupils hold their fingers in exactly the same positions. This is thoroughly discussed in the textbook entitled: "The Palmer Method of Business Writing."
- 4th Step—Making the first easy exercise with special relation to the first three steps until position and easy movement are somewhat automatic; the speed element to be seriously considered.

In the first stage it is expected that teachers will give the closest possible attention to posture, the development of the right motive power and its application at the required speed in making the straight line and oval drills. It would be a waste of time to talk much about the application of the movement in muscular movement writing before pupils have mastered this first stage of the work and are able to make well the drills mentioned. The instructions on pages 2 to 23, inclusive, of the Manual should be studied very closely. It is suggested that teachers read and discuss these instructions with their pupils. It should be borne in mind that exactly two hundred downward strokes should be made to the minute in both straightline and oval drills and that 100 counts should carry the pen not more than one quarter of the distance across a page eight and one-half inches wide. While this practice of the straightline and oval is proceeding, teachers should closely watch the arms and hands of the pupils. Wrists should be kept from the paper. It is well to keep the wrists high enough to bring the forearm rest back to a point very near the elbow. It must be remembered that in muscular movement penmanship there are only two points of contact. They are: the muscle of the forearm just in front of the elbow, and the third and fourth fingers. These fingers should slide over the paper either on tips of the fingers or on the finger nails.

Pupils are prepared to learn how to write with the muscular movement when they can make, automatically and well, the straightline and oval exercises, in easy rhythm, with correct movement.

### SECOND STAGE

- 5th Step—Specific application of the automatic movement to easy letters and words. Strive for the retention of good posture and correct speed.
- 6th Step—Movement correlation in all written work. This can be accomplished only when the grade teacher, who is constantly with her pupils, has studied, digested, and mastered the preceding steps. On expert penman and skilled teacher of muscular movement writing—giving occasional lessons in the class—could accomplish but little by intermittent visits in this stage of transition from movement drill to movement writing.

In the second stage of the work we include steps 5 and 6. In this

\*This outline prepared by Professor A. O. Colvin, Department of Commercial Arts, Colorado Teachers College.



stage we bridge the chasm between movement drill and movement writing, and teach pupils how to do all of their penmanship with muscular movement. The movement used in writing should be swift enough to produce sharp, clear-cut lines and at the same time slow enough to permit the pupils to form the letters well. In this connection special study should be made of the instructions at the bottom of page 23 in the last edition of the Palmer Method Manual. Then, the words "mine," and "sell" should be practiced at the speed indicated in the instructions. It is very important that pupils should understand the relative amount of force to be used in making the two space straight-line and oval drills, and that in writing these little words the minimum letters are only one-twelfth as high, or one-sixteenth of an inch. When pupils can write the words on page 23 well, they will then be ready to write other words. It will not matter particularly in what part of the Method the words practiced are found, but the more difficult words should be avoided until the pupils can write simple words well at the required speed and with correct movement. It will be well to use frequently the words found on page 23 for the purpose of ascertaining whether or not the pupils are writing too slowly or too swiftly. If in these words it is found that the small "s" is not made very well, then pupils should be required to turn to page 45, on which the small "s" is given as a special drill. Then, perhaps, it will be discovered that the small "i" is made too long or too broad, or to tip over too much. If so, it will be well to turn to drill 33 and practice that exercise according to the instructions until it can be made correctly and at the right speed. Indeed, as words are selected and practiced from different parts of the Method, the letters found to be most difficult should be given special attention and the drills in which they are treated in the Method should always be those selected for practice. Drill 14 is one of the best exercises for use in developing the over-motion used in "m," "n", the last part of "h," the first part of "y", and in parts of other letters. In this exercise, pupils also train their hands to change from over-motion used in the letters to under-motion used in the connective line. When pupils do all of their writing with muscular movement, even though in a crude sort of way, they are then ready to pass from the second to the third stage.

### THIRD STAGE

7th Step—The element of speed application and movement direction in letters, parts of letters, words, and connective lines. In this step which is one of the most important in the teaching of good writing because of its bearing upon good formation, and consequently upon good writing, pupils must be taught that a line is the product of the motion used; that the motion preceding the contact of the pen to the paper must be in the direction of the line to be made, and that some lines, being more complex than others, should be made with less speed.

8th Step—The teaching of observation and mental concentration as they have a bearing upon the relation of one letter to another, in size, slant, and spacings. This is an essential and final step in the teaching of writing which embodies legibility, rapidity, ease, and endurance. It is a lamentable fact that many teachers are satisfied when they have mastered and are able to teach the first six steps. Teachers who have not mastered steps seven and eight may secure good postures and easy muscular movement in all written work, but the writing is likely to be ragged and dissipated in appearance.

Teachers who try to change the teaching order of these eight steps will build mountains of trouble which worry and work will only enlarge.

Every teacher should be able to demonstrate before her pupils the letters which she is to teach and the words which are used as form

builders. It is not expected that pupils will write well during the second stage of this work, but unless the first six essential steps are taught in exactly the right way, the pupils will not be prepared to learn how to write with accuracy and ease when they take up the seventh step. Teachers must not rely wholly upon the directions given in these Eight Essential Steps and the three stages into which they are divided. These are intended to be only a guide for the study of the instructions in the Method and the practice of the drills in that book.

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# READING

## First Grade

The fundamental aim in reading is to stimulate thinking so the first experience a child should have in reading is thought-getting. The first reading is short stories, rhymes or sentences giving complete thoughts and the children do not distinguish the individual words. Then sentences phrases and words are located that say certain things. The sequence is story, sentence, phrase, word, sound, and letter. The stories, poems, rhymes and conversations about interesting experiences of the children form a splendid basis for thoughtful first grade reading. The beginning of phonics is words that are alike or begin alike and then the phonograms and individual sounds.

### I. Comprehensive or Intelligent Interpretation.

- a. By relating material to child's experience.
- b. By effective habits of study.
- c. By wide reading to form many centers of interpretation.

Suggestions for accomplishing above points.

1. Use as interesting experiences as possible for first lessons so children will attach vivid meaning to words learned.
2. Children read story from cards.
3. Teach children short poems or nursery rhymes.
4. Later place on cards and read by wholes and sentences.
5. Teacher tell story and pupils reproduce.
6. Pupils dramatize short stories.
7. Discuss name of story and pictures before reading.
8. Relate each new story to some similar experience of the children.
9. Direct children's reading by asking questions.
10. Have children read by thought units instead of lines or pages.
11. One child reads aloud and others ask him questions on what what he reads.
12. Illustrate story with cuttings or crayolas.

### II. Thorough Mastery of the Mechanics.

- a. For effective oral reading.
- b. For effective silent reading habits.
1. Children locate sentences, phrases and words that say certain things.
2. Use sentence, phrase and word drills and flashcards to get quick recognition.
3. Find words that begin or end alike.
4. Give phonograms and letter sounds when children know enough sight words for comparison.
5. Use period separate from the reading period for word and phonic drills.
6. Use short exposure sentence to get rate in silent reading.
7. Give pronunciation drills for voice control to get good articulation.
8. Build sentences and words from familiar stories with words or letters.
9. Develop ear training.

Suggestions:

1. Teach children how to care for their new books.
2. Show how pages are numbered.
3. Show how to find page and title of story quickly.
4. Read aloud and discuss with children short stories.
5. Have as many books of real content at hand for individual reading as possible.
6. Read aloud and have class memorize several short poems.

## Second Grade

The fundamental aim of reading is thought-getting. This grade is to continue the habits of study and mastery of mechanics begun in the first grade and develop fluency by wide reading. There needs to be three periods devoted to reading. In the morning period teacher and pupil work out new material. There should be much thoughtful silent reading in answer to stimulating questions. At first the questions are given orally by the teacher and later written on the board or class cards to get good habits of study. The drill period should be separate from the reading period where phonics and word analysis are given. The afternoon period should be much oral and silent reading of easier material to get rate, fluency and fix the habits developed in the morning. There should be both silent and oral reading and lively discussion of content of what is read. This reading should be as wide as possible and along different lines.

- I. Give Comprehension or Intelligent Interpretation.
  - a. By relating material to child's experience.
  - b. By effective habits of study.
  - c. By wide reading to form many centers of interpretation.

Suggestions for accomplishing above points.

1. Relate new material to some similar experience of the children.
2. Teacher tell story in abridged fashion, pupils work out complete story from book.
3. Pupils read to find answers to questions.
4. Pupils follow written or printed directions.
5. Pupils tell meaning of words by suggesting others that might have been used.
6. Read story to plan scenes and characters for dramatization.
7. Help pupils study a difficult story by asking questions while they work out story.
8. Direct the reading by thought units not by pages.
9. While one child reads aloud others study to ask him questions on what he reads.
10. Illustrate story with cuttings or crayolas.
11. Use some simple reading units as Indian Life or Animals for informational reading.

- II. Give Thorough Mastery of the Mechanics.
  - a. For effective oral reading.
  - b. For effective silent reading habits.

Suggestions for accomplishing above reading habits.

1. Continue use of sentence, phrases and word drills from flash cards to increase rate of recognition.
2. See that children can use sounds learned in first grade to gain independence in word recognition.
3. Complete analysis of monosyllabic words and recognize known parts of longer words.
4. Teacher tell short synopsis of new story putting difficult words on board as she comes to them, pupils pronounce them.
5. Find quotations quickly in answer to questions to get speed.
6. Give drills for careful articulation.
7. Teacher read aloud and discuss with children several books of different types.
8. Have some supplementary books to be taken home and read and reported on.
9. Read aloud and discuss with the children several short poems then memorize.
10. Teacher read part of some book aloud and then put with books for individual reading.

11. The standard in rate for second grade is from 80 to 100 words per minute. The comprehension is not easily indicated except by a particular test, but informal tests can be given by questions or reproduction of suitable paragraphs or stories.

## Third Grade

The fundamental aim of reading is to stimulate thinking and get experience from the printed page. The third grade is to continue the habits of study begun in the first and second grades, gain wider fluency and complete the mastery of the mechanics. At the end of the third year the children should be able to read independently third grade material and read fluently supplementary material at sight. The same three periods of the second grade need to be continued the afternoon period being on reading units for geography or other work.

- I. Give Comprehension or Intelligent Comprehension.
  - a. By relating material to child's experience.
  - b. By effective habits of study.
  - c. By wide reading to establish many centers of interpretation.

Suggestions for Accomplishing above Points.

1. Keep material related to children's experience.
2. Pupils read to find answers to questions during study period.
3. Pupils find main parts of story and read in those units, others asking questions.
4. Pupils read short individual stories to tell to rest of class.
5. Pupils read silently to find answers to teacher's questions and discuss accuracy of answers.
6. Pupils read and find main and minor characters in story.
7. Plan scenes and dramatize stories.
8. Have some reading units where children can read extensively for information.
9. Pupils write questions on different parts of the story, best used in class.
10. Find meaning of new words from content and suggest others that might have been used.
11. Make list of new words or unusual expressions from lesson to be used in sentences.
12. Illustrate stories with drawings.
13. Use of flash cards to test thought-getting and mechanics of reading.

- II. Give Thorough Mastery of the Mechanics.
  - a. For effective oral reading.
  - b. For effective silent reading habits.

Suggestions for accomplishing above points.

1. Use sentences and longer phrases for short exposure drill to increase span of recognition.
2. Use phonic drills if still needed.
3. Recognize known parts of polysyllabic words and work out pronunciation.
4. Teach some of the more common prefixes and suffixes, an, in, dis, and, less, ness, ful, fully, both for meaning and pronunciation.
5. Complete the mastery of the mechanics.
6. Have articulation drills for clearness and flexibility of voice.
7. Read orally and silently much easy material to rhythmical movements of eyes and gain fluency.

- III. Give Effective Use of Books.

- a. Pages and chapters.
- b. Tables of content.
- c. Glossary.
- d. Reference books.

Suggestions for accomplishing above points.

1. Call attention to titles of books as indicating content.

2. Insist that pupils use tables of contents to find topics.
3. Show how chapter headings indicate central thot of chapter.
4. Teacher use, dictionary in front of children to get meaning, spelling of pronunciation of new words.
5. Teacher read aloud and discuss with children several books of different types.
6. Pupils make short reports to class of books read from individual reading lists.
7. Read aloud and interpret several short poems that children memorize later.
8. Have as many kinds of books from types above as possible for individual reading.
9. Show class how different books will give information on certain topics as life in Holland or How Ants Live.
10. Let children hunt up extra reading material on any topic they are studying.
11. The standard in rate for third grade is 100 to 125 words per minute. The comprehension standard cannot be indicated very well except in a particular test, but the teacher can give informal tests by having all the class read a certain paragraph or story by time and then reproduce or answer questions on amount read.

## Fourth Grade

The mechanics of reading should be fairly well mastered by the time children enter the fourth grade. There will need to be less word and phonic drill for word recognition and more word and phrase study for meaning. There should be wide reading with emphasis on silent reading, using that provoking assignments that will develop independent habits of study. Much reading will be informational reading connected with geography, history or other subjects of the grade.

- I. Give Comprehension or Intelligent Interpretation.
  - a. By relating material to child's experience.
  - b. By effective habits of study.
  - c. By wide reading to form many centers of interpretation.

Suggestions for accomplishing above points.

1. Connect new material with similar experience of pupils.
  2. Find answers to that provoking questions.
  3. Find the central thot in paragraphs and short selections.
  4. Read quickly to reproduce ideas of a paragraph.
  5. Find authors aim or purpose in a selection.
  6. Determine relative importance of statements.
  7. Draw conclusions and give reasons for them.
  8. Pupils write questions on main parts of story—class discuss and criticise them.
  9. Judge meaning of words from how used, then verify with dictionary.
  10. Read story to dramatize it, others critical of the interpretation.
  11. Read individual stories for reproduction.
  12. Have some reading units relating to geography, history, hygiene or nature study as all the stories the class can find about Lincoln.
  13. Use of flash cards to test thought-getting and mechanics of reading.
- II. Give Thorough Mastery of the Mechanics.
    - a. For effective oral interpretation.
    - b. For effective silent reading habits.

Suggestions for accomplishing above points.

1. Increase amount of easy silent reading to get rhythmical sweeps of eyes and few fixations.
2. Begin systematic study of the dictionary. (See spelling outline).



3. Give word analysis for meaning as well as pronunciation—prefixes and suffixes in, de, pro, est, ly, ness, less, ing, ed, and ous.
4. Study some common roots, make words lists from root as light, lights, lighting, lightning, delight, sunlight.
5. Give time drill in reading for thot.
6. Use informal test to locate pupils especially weak in rate or comprehension.
7. Locate their difficulty and arrange a special help period for them.
8. Have some motivated oral reading morning exercises, when only one book is available, parent-teachers, etc.
9. Indicate class standards and encourage pupils to work toward them.

### III. Give Effective Use of Books.

Pages and chapters.

Table of contents.

Glossary.

Reference books.

Suggestions to accomplish above points.

1. Show and discuss how to use each new book in content subjects—tables of content, maps, charts, graphs and glossary.
2. Begin use of dictionary.
3. Show class how to find information on some topics, from other books.
4. Take class to library to show uses.

### IV. Give knowledge reading materials and permanent interest in reading.

Literature.

Travel.

History.

Industry.

Science.

Geography.

Biography.

Suggestions for accomplishing above points.

1. Encourage pupils to bring in clippings on any topic being studied.
2. Have reports on outside reading, telling characters and main points of story.
3. Have as many of above types of books for individual as possible.
4. Teacher read aloud and discuss several standard books.
5. Read aloud and discuss several longer poems and interpret and memorize some short ones.

The rate for fourth grade is about 145 words per minute. The comprehension score depends upon the test, but informal tests can be given in reproduction or questions to locate weak pupils.

## Fifth Grade

The children of this grade should continue wide reading in all content subjects with the emphasis on silent reading habits. The reading should broaden their world, awaken their sympathies and give them a many sided interest in conditions and peoples. Their interpretation of characters should grow more accurate and the conclusions drawn for reading more reliable.

### I. Give Comprehension or Intelligent interpretation.

a. By relating material to child's experience.

b. By effective habits of study.

c. By wide reading to form many centers of interpretation.

Suggestions for accomplishing above points.

1. Relate new material to previous experience.
2. Find central thot or selections and show relations to title.
3. Describe characters in selections, showing why certain conclusions were drawn.
4. Find answers to thot provoking questions.



5. Pupils make that provoking questions to use in class discussion.
6. Discuss relative importance of statements.
7. Determine meaning of words from context and use dictionary to find further information.
8. Make an outline of a story for reproduction.
9. Find authors aim or purpose in a selection.
10. Dramatize some selections or parts of selections for oral interpretation.
11. Have some reading units in connection with other subjects as lumbering or how our arid lands are made productive.
12. Use of flash cards to test thought-getting and mechanics of reading.

II. Give Thorough Mastery of the Mechanics.

- a. For oral interpretation.
- b. For effective silent reading habits.

Suggestions for accomplishing above points.

1. Increase amount of silent reading in content subjects.
2. Continue study of dictionary until pupils can use readily. (See spelling).
3. Carry on systematic word analysis, using new prefixes and roots as encountered.
4. Continue use of speed drills.
5. Locate pupils especially weak in rate or comprehension and provide for a special help period for them.
6. Have some motivated oral reading.
7. Post class standards and encourage pupils to work toward them.

III. Give Effective Use of Books.

- Pages and chapters.
- Tables of content.
- Glossary.
- Reference books.
- Encyclopedia.
- How to use a library—Card index.

Suggestions for accomplishing above points.

1. See that pupils use tables of content to locate material in reference books.
2. Discuss aids in new books used in this grade, maps, charts, tables, graphs and glossary.
3. Use reference books to supply material for their reading units.

IV. Give knowledge of reading materials and permanent interests in reading.

- |             |            |
|-------------|------------|
| Literature. | Travel.    |
| History.    | Industry.  |
| Biography.  | Geography. |
| Science.    |            |

Suggestions for accomplishing above points.

1. Bring in clipping for history or geography books.
2. Post lists of books under the different types to be drawn from library.
3. Keep record of books read and give credit.
4. Bring in and discuss some good magazines as Nature Study Review or Youths Companion.
5. Interest pupils in some author and have them read as many selections from his works as possible.

The standard rate for the fifth grade is about 170 words per minute. The comprehension standard varies with the test, but informal tests can be given in reproduction or questions that will locate the pupils low in comprehension.

## Sixth Grade

A characteristic impulse at this age is an increased interest in reading if the mechanics have been mastered so that reading is fluent and easy. The children should read widely in their other subjects and have access to travel, biography and all types of reading. They should become somewhat acquainted with all fields and definitely interested in some. As in the fifth grade silent reading habits should be emphasized. There should be lively discussions for meaning and a keener interpretation of authors purpose and characters.

### I. Give Comprehension or Intelligent Interpretation.

- a. By relating material to child's experience.
- b. By effective habits of study.
- c. By wide reading to form many centers of interpretation.

Suggestions for accomplishing above matter.

1. Relate material to previous experience.
  2. Find authors purpose in various kinds of reading material.
  3. Train pupils to work out sets of that provoking questions best used for class discussion or written tests.
  4. Draw conclusions and support them with facts.
  5. Make a topical outline of material read for class report < discussion.
  6. Find answers to judgment questions.
  7. Describe and compare characters.
  8. Continue synonym work.
  9. Train pupils to go to source material and authorities to judge validity of statements.
  10. Dramatize some selections or parts of selections to aid in getting good oral interpretation.
  11. Use some large reading units where children read from all available sources to get information on a particular problem as, life history and extermination of the fly, or Occupation of the Swiss people.
- ### II. Give Mastery of the Mechanics.

- a. For effective oral reading.
- b. For effective silent reading habits.

Suggestions for accomplishing above points.

1. Continue systematic word analysis, building words with prefixes, suffixes and common roots.
  2. Insist on independent use of the dictionary in all subjects.
  3. Use speed drills on easy sight material.
  4. Train pupils to recognize different silent reading purposes, as scanning material quickly to find valuable points, as in newspaper reading and reading carefully and intensively when important point is found.
  5. Have oral reading for special occasions or when situation demands it.
  6. Post grade standards and encourage pupils to work toward them.
- ### III. Give effective use of books.

- a. Pages and chapters.
- b. Tables of content.
- c. Glossary.
- d. Reference books.
- e. Encyclopedia.
- f. How to use a library—card index.

Suggestions for accomplishing above points.

1. Continue emphasis on use of reference material for other subjects.
2. Give instruction in use of encyclopedia.
3. Show and discuss value of other types of magazines as National Geographic.

4. Post in room list of interesting books in many lines for library reading.
- IV. Give knowledge of reading materials and permanent interest in reading.

Literature.  
Biography.  
Travel.

Science.  
History.  
Geography.

Suggestions for accomplishing above points.

1. Make wider use of clippings and current events.
2. Read aloud and discuss several long poems.
3. Read widely from certain authors, keeping record of selections read.
4. Keep record and have reports of books read from library list, give credit in reading for each book read and reported on.

The standard rate for sixth grade is about 190 words per minute. The standard in comprehension depends upon the particular test used, but the teacher can test informally by questions or reproduction to locate pupils low in comprehension.

## Suggestions for Stimulating Silent Reading

1. Dramatization. Reading Motive.
2. Varied, easy, and interesting supplementary reading accessible of worth while material.
3. Judging relative values. Speed, comprehension, organization and memory.
  1. Read for central thought or main points.
  2. Make outlines for chapters.
  3. Make paragraph headings.
  4. Read to see if chapters are well named and to make better headings.
  5. Making up questions to cover main points.
  6. Read to find favorite verse.
  7. Selecting most beautiful scenes, best character sketches, well turned words or phrases.
  8. Drawing the picture described.
4. Reading so as to read to others.
5. Reading so as to report to others—either individually or by groups, oral or written.
6. Rapid reading to answer a specific question.
7. Games for matching phrases and sentences.
8. Read silently directions for game, errand, problem; then do it.
9. Studying a story, description, of character sketch, so as to write well one self.
10. "Flashing" words, phrases, or sentences. A device.
11. Time limit for silent reading. Read a minute then count words.
12. Teacher reads a random sentence and child who first finds place continues.
13. Read part of the story. Allow class to finish exciting part silently.
14. Competitive reading clubs—secret book reading.
15. Keeping a written list of books read.
16. Reports to class of current events.
17. Keeping individual speed records.
18. Only within the limits of accurate comprehension are speed exercises safe.
19. The rate at which one should read is determined both by the material read and the purpose in mind.
20. We ought not to speak of speed in silent reading but rather of speeds in silent reading.

# PHONICS

Phonic methods are simply devices for making the child self-reliant and independent.

Besides this purpose phonics aims to aid children in the pronunciation, enunciation, articulation and mastery of words.

This use of phonics, phonograms, syllabification and spelling are not ends in themselves but merely means to an end.

A separate period for phonics aside from the reading period should be given a place in the daily program during the first three years of school.

## First Grade

Material.

Consonants.

Short sounds of vowels.

Final e.

Double vowels.

Two vowels together.

Blends th, wh, sl, di, ti, sp, tw, fl, I (initial), sh, nk, ng, ck, ch, tch, ing, ir, ur (final).

Beginning of syllabication.

The formal work in phonics preceded by ear and lip drill.

Phonics are then introduced incidentally as the need is felt for them.

The order and material varies somewhat according to books used for reading.

## Second Grade

The educational values derived from phonics in the second grade are—

1. Ear training.
2. Clear articulation.
3. Foundation for use of dictionary.
4. Pronunciation of new words.

The work develops as follows:

I. Review first grade phonics.

II. Teach a, e, i, u, before r greatly modified.

Two sounds of c, s, g, and the correct sound of wh.

All the sounds of double vowels.

ai and ay like long sound of a.

oa and oe like long sound of o.

ie and y like long sound of i.

ew and ue like long sound of u.

au and aw like a in all.

g and dg like j.

a like short o.

ph and gh like f.

tion and sion alike.

Short vowel followed by two consonants, long vowel followed by one consonant.

Illustrate the silent k, g, w, b, l, t, gh.

Give some work with prefix and suffix and begin the diacritical marking.

## Third Grade

Silent letters: w, f, k, l.

a as in ask.

ss, sp, st.

ff, ft.

ph, tion, th, nt, nd.

e-a.

a-e.

a-o.

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## Fourth Grade

Use of phonics and diacritical markings as a self help. Children will use all of them in working out new words and pronouncing words for themselves. No special time on the program is given for a phonics class but they are used whenever an occasion demands its use.

### Reading Tests

The following reading tests are purchasable and have been used with good effect to test the work of a school:

- Brown's Silent Reading Tests. Speed and content of silent reading.  
H. A. Brown, State Normal School,  
Oshkosh, Wisconsin.
- Courtis's Reading Tests. Speed and content of silent reading.  
Courtis Standard Research Tests,  
82 Eliot St., Detroit, Mich.
- Fordyce's A Scale for Measuring Achievements in Reading. Speed and content of silent reading.  
University Publishing Company,  
Chicago, Illinois.
- Gray's Reading Tests. Oral Reading, Silent Reading.  
William S. Gray, School of Educa-  
tion, University of Chicago, Illinois.
- The Kansas Silent Reading Test.  
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ments and Standards,  
Kansas State Normal School,  
Emporia, Kansas.
- Monroe's Standardized Silent Reading Test. Modified form of Kansas Test.  
Walter S. Monroe, Indiana Univ.  
Bloomington, Indiana.
- Starch's Silent Reading Test. A test for each grade.  
University Supply Association,  
Madison, Wisconsin.
- Starch's English Vocabulary Test. Range of vocabulary.
- Thorndike's Improved Scales for Word Knowledge and Visual Vocabulary.  
Scale A2 and Scale B. Test of ability to recognize meanings of words.  
Bureau of Publications,  
Teachers College, Columbia Univ.  
New York City.
- Thorndike's Improved Scale for Measuring the Understanding of Sentences, Scale Alpha 2. Test of grasp of content.  
Bureau of Publications,  
Teachers College, Columbia Univ.  
New York City.
- Thorndike-McCall, Reading Scale. A scale for testing and teaching silent reading. Ten forms have been prepared in order that a teacher may test her pupils once each month during the school year.  
Bureau of Publications,  
Teachers College, Columbia Univ.  
New York City.

# Spelling

The study of spelling has value for the child just to the extent that the words learned are the words he uses or that he will use in the near future in doing the writing involved in carrying on the everyday affairs of life.

In making word lists distinctions between hearing, speaking, reading and writing vocabulary must be kept in mind. It is unwise to have a pupil spend the greater part of his spelling time upon words that appear only in his hearing, reading or speaking vocabulary. The words that a child needs to know how to spell are in the main the words that he uses in writing. While the words of the writing vocabulary are common to the hearing, speaking and writing vocabularies the writing vocabulary does not by any means represent a random selection of words from the other groups but rather it consists of a relatively small minimum of the words most useful to the child in expressing his own thoughts.

The minimum list of common words given in this outline are the result of a comparative study made by Tidyman of the six important investigations of the words commonly used by children and adults in their composition. The combined investigation comprises the Jones List of 4532 words. The Chancellor List of 1000 words, the Smith List of 1125 words, the Cook and Oshea List of 3200 words, the Stiedly and Ware List of 3470 words and the Ayres List of 1000 words. Tidyman's minimum word list consists of 1254 words common to four or more of the six investigations.

By calling attention to the recurrence of these words in written compositions and expressions, by making lists of the words pupils frequently misspell in written work and by requiring the use of words in sentences, the teacher will be able to keep the purpose and significance of spelling clearly before the children as well as provide for the use of words in their natural setting. The Horne-Ashbaugh Speller is recommended as a method of supplying special lists of words for each grade.

## DEFINITIONS

The definition is a device for testing or clarifying the pupil's knowledge of a word. It is frequently difficult for pupils to give and is not so vital as the use of a word in a sentence. Nevertheless it may be used to add variety and interest in the work. The logical definition of words involves a high degree of abstract thinking and should not be expected of children in the lower grades. It has been found that the rational method of defining words of children in the Fourth grade is by colloquial definitions. In the Fifth grade the use of synonyms becomes prominent and in the Sixth grade logical definitions are in the majority although definitions of other kinds are still common.

## TRAINING IN THE USE OF THE DICTIONARY

The knowledge of using the dictionary is essential to the development of independent power in acquiring pronunciation, meaning, use and spelling of words. Suzzallo in his "Teaching of Spelling" says: "First, the alphabet is reviewed to see if it is well within the child's easy habitual command. Then the child is sent to the dictionary to find simple words the spelling of which he knows. At first these words have different initials, to establish the simple principles of alphabetic order. Later, words beginning with the same initials are assigned, to show that the initial letter alone does not determine the place of a word in an alphabetical list. Thus the principles of alphabetical and subalphabetical arrangements are mastered. And last, words, the spellings of which are doubtful to the child, are given; and the child is taught to scan the pages till he finds them. Special exercises are given to show a child how the pronunciation (lesser, lessor; least, lest) or meaning will assist him to find the word when the spelling is in doubt( capitol, capital; limpit, limpid). Special exercises are given to show the child how to determine which is the preferred spelling when there are two.



"Exercises in finding pronunciation are given in the same careful way until each technique is taught,—preferred pronunciation, the interpretation of diacritical marks through the key words at the bottom of the page, the meaning of the accents, etc. Then the child is drilled until he can readily determine the meaning of a word. The abbreviations for the parts of speech are explained. He is encouraged to read all the meanings, avoiding those marked 'rare', 'colloquial', or 'obsolete', and to select the most likely meaning with the aid of the examples of usage."

### METHOD OF PRESENTATION

The attention of the child is called to the whole word on the board or in the book. The word is pronounced by the teacher and if quite unusual or familiar, by the children.

1. The word is used in a sentence or defined.
2. The teacher writes the word on the board in syllables.
3. The children pronounce the word separately and distinctly by syllables with a clear visualization of the letters of each syllable.
4. The attention of the children is fixed upon the familiar, unfamiliar, common and difficult parts of the words by picking out and associating them with familiar parts of other words.
5. The children are told to look away from the board and try to see it as it looked on the board.
6. The word is spelled orally by individuals or by the class.
7. Oral spelling is preceded by a clear and accurate pronunciation of the word.
8. The word is written several times.

Slavish obedience to this program is not necessary as Tidyman says it is offered as giving the essentials of a spelling method, the order in which the several exercises should occur and the relative emphasis that each exercise should receive. It is highly desirable that each teacher work out her own plan of teaching spelling which should be determined largely by the needs of her own particular group. The essential thing to be accomplished in any preparation of spelling words are:

1. Recall or development of the heard, spoken, and written symbols of the word together with its meaning and use.
2. The clear accurate pronunciation and visualization of the word by syllables.
3. An accurate auditory-speech-motor image of the word; and a definite hand-motor image.

Dr. Ernest Horn gives the following method of learning to spell a word.

1. The first thing to do in learning to spell a word is to pronounce it correctly. Pronounce the word saying each syllable very distinctly and looking closely at each syllable as you say it.
2. With closed eyes try to see the word in your book, syllable by syllable, as you pronounce it in a whisper. In pronouncing the words be sure to say each syllable distinctly. After saying the word, keep trying to recall how the word looked in your book, and at the same time say the letters. Spell by syllables.
3. Open your eyes, and look at the word to see whether or not you had it right.
4. Look at the word again, saying the syllables very distinctly. If you did not have the word right on your first trial, say the letters this time, as you look sharply at the syllables.
5. Try again with closed eyes to see the word as you spell the syllables in a whisper.
6. Look again at your book to see if you had the word right. Keep trying until you can spell each syllable correctly with closed eyes.
7. When you feel sure that you have learned the word, write it without looking at your book, and then compare your attempt with the book to see whether or not you wrote it correctly.
8. Now write the word three times, covering each trial with your hand before you write it the next time so that you can not copy.

If all of these three trials are right, you may say that you have learned the word for the present. If you make a single mistake, begin with the first direction and go through each step again.

9. Study each word by this method. Take special pains to attend closely to each step in the method. Hard and careful work is what counts.

## DEVELOPMENT OF A SPELLING CONSCIOUSNESS

The development of a spelling consciousness is accomplished primarily through getting a strong positive impression of a correct form of a word in presentation and in frequent repetition and use of this form until it is positively known and all danger of vagueness and uncertainty is passed. Another principle, of a general preventive nature, is never take a chance in spelling a word about which you have any doubt. There is nothing that more quickly and surely undermines the security of the spelling consciousness. A mistake made through carelessness will be repeated with increasing readiness until all feeling of certainty as to the correct form of spelling is lost. When in doubt about the spelling of a word children should be taught to use the dictionary or in the lower grades to consult the teacher. Experiments show that this habit would have prevented nearly two-thirds of the spelling errors. If children gain a strong, vivid impression of the correct spelling of words and form the habit of looking up every word when it is first doubted errors will be reduced to the minimum.

## TREATMENT OF ERRORS

In spite of the best efforts that can be put forth it is found impossible to prevent all errors. Tidyman says they can be reduced in number by perfecting methods of presentation and review and by developing systematic habits of word study. There are some pupils who seem to reach practically perfection in spelling but there are others who persist in making mistakes.

Dealing with misspelling is a problem that every teacher has to face. A helpful classification of errors, prepared by Dr. Leta S. Hollingworth:

1. Errors which result from automatically copying the ending of a word that is just above the word being spelled; e. g., "closet, clockt."
2. Errors which result from automatically including a syllable which is therefore coming "to mind" as that word is being finished; e. g., "postcard card".
3. Errors which result from a tendency to omit, in written spelling, one of two letters which require a similar motor response for their execution; e. g., "sd" for "sad", and "gld" for "glad".
4. Errors which result from writing a letter that has common kinaesthetic elements instead of the correct letter; e. g., "dod" for "dog", and "forn" for "form".
5. Errors which result from substituting a letter that has common visual elements instead of the required letter; e. g., "goiny" for "going", and "store-heeper" for "store-keeper".
6. Errors (very common) which result from substituting a letter that has common phonetic elements for the required letter; e. g., "celect" for "select".
7. Errors which result from transposing two adjacent letters as is so often done in typewriting; e. g., "Indain" for "Indian", and "mintue" for "minute".
8. Errors which result from perseveration of an element, especially a dominant element, in a word just used; e. g., "the theeth" for "the teeth".
9. Errors which result from a tendency to omit the last letter of the word being written, when the initial letter of the next word has the same or a similar sound; e. g., "advise to" for "advised to".
10. Errors due to doubling the wrong letter in a word which contains a doubled letter; e. g., "frezze", for "freeze".

## TESTING

It is the problem of the teacher in spelling to locate difficult words, to determine their particular difficulty, to find when words have been learned and where further instruction or drill is needed, to locate individuals who need special help and to determine the particular help needed; to accomplish these things it is necessary to use three types of tests. The preliminary test, the main test and the review test.

The preliminary test is a test given before instruction is begun to find out what words children already know, what words are difficult, how time should be disposed among the words of the lesson and what the particular spelling difficulties of the words are. For the saving of time the preliminary test should consist of the dictation of isolated words. Tidyman found it well to include in the preliminary test the new words for a week and to give the test on the Friday preceeding the week in which the words were taught. In recording errors as much work as possible should be placed upon the children. Above the third grade experiments show that the teacher can spell the words back to the children and rely upon their judgment and honesty for marking. The tabulated results of the preliminary tests will consist of the number of times each word was misspelled. By comparing these with the number of pupils present it will be possible to determine the relatively difficulty of each word. The determination of the particular spelling difficulty of each word is also very important. To find this the teacher should look over the papers for the most frequent form of misspelling or the part of the word causing the greatest difficulty. In these tests as in all other tests children should be taught to discover for themselves the hardest words as well as the parts of words causing the greatest difficulty. For this purpose individual word lists should be prepared, containing words missed.

The purpose of the main test is to find out where further drill is needed and to discover what pupils need special help. This test follows the instruction and drill periods. It is customary to use a column test for this purpose. The sentence test has some advantages over the column test and also some disadvantages.

The review test should occur occasionally as the need for review demands and should be of the sentence sort. The review tests occur after long intervals to show retention and to give children additional drill in the use of words.

### A SUGGESTIVE PLAN FOR DETERMINING WORD DIFFICULTY

Any plan for determining word difficulty must be accurate and practicable. It must be workable and based upon actual spelling of children. The following plan is taken from Tidyman's "The Teaching of Spelling":

## SPELLING PLAN AND RECORD SHEET

| Week of<br>Feb. 14 | Prelimin-<br>ary test<br>Friday | Monday<br>Feb. 14 | Tues-<br>day | Wednes-<br>day | Thurs-<br>day | Fri-<br>day | Review<br>test<br>March |
|--------------------|---------------------------------|-------------------|--------------|----------------|---------------|-------------|-------------------------|
|                    |                                 |                   |              |                |               |             | 3                       |
| No. present        | 44                              | 40                | 40           | 40             | 40            | 40          | 43                      |
| courage            | 12                              | 1                 |              |                |               | 0           | 1                       |
| careful            | 3                               | 0                 |              |                |               | 0           | 2                       |
| which              | 1                               | 0                 |              |                |               | 0           | 0                       |
| their              | 3                               | 1                 |              |                |               | 0           | 3                       |
| there              | 2                               | 1                 |              |                |               | 1           | 2                       |
| business           | 10                              | 2                 |              |                |               | 2           | 1                       |
| service            | 18                              |                   | 1            |                |               | 1           | 3                       |
| servant            | 16                              |                   | 0            |                |               | 1           | 1                       |
| faithful           | 19                              |                   | 0            |                |               | 1           | 1                       |
| many               | 2                               |                   | 0            |                |               | 1           | 0                       |
| friend             | 7                               |                   | 0            |                |               | 2           | 0                       |
| since              | 6                               |                   | 0            |                |               | 0           | 2                       |
| explanation        | 21                              |                   |              | 4              |               | 2           | 4                       |
| attention          | 16                              |                   |              | 3              |               | 2           | 2                       |
| always             | 3                               |                   |              | 0              |               | 3           | 2                       |
| write              | 4                               |                   |              | 1              |               | 0           | 0                       |
| writing            | 8                               |                   |              | 2              |               | 0           | 0                       |
| once               | 1                               |                   |              | 0              |               | 0           | 0                       |
| declaration        | 36                              |                   |              |                | 3             | 1           | 4                       |
| description        | 20                              |                   |              |                | 2             | 2           | 10                      |
| vacation           | 20                              |                   |              |                | 1             | 0           | 3                       |
| doctor             | 7                               |                   |              |                | 0             | 0           | 2                       |
| often              | 14                              |                   |              |                | 0             | 0           | 3                       |
| automobile         | 22                              |                   |              |                | 5             | 0           | 2                       |

This plan provides the preliminary test for the words for the week on the Friday preceding the week in which the words are to be taught. The words are dictated to the children then spelled back to them for correction. Finally the teacher determines the number of errors for each word on her record sheet. In this way the work for the week is planned and laid out. By comparison with the "number present" the figures give some notion of the degree of difficulty of the several words and show the teacher the relative emphasis that should be laid on each word. After each days lesson a simple test is given and the figures entered in the appropriate column. If the teaching is thorough there should be few errors or none in the daily test. When a word is found to have too many errors it is carried over into the next days lesson and treated as before. This plan provides also for a review lesson of all the words of the week on Friday with the record of errors and finally a test without study after two weeks.

The use of this plan shows the teacher how to distribute her time and effort among the words of the lesson and gives her effective and repeated checks upon the efficiency of her work. More words may be given at a time in the preliminary test than is here suggested and the interval may be lengthened between the preliminary test and the presentation of words.

## STANDARD TESTS AND SCALES

The important standard tests are the Buckingham Test, 50 words; the Buckingham revision of the Ayres Scales; the Ayres Scale; Ayres Ten Word Test and the Starch List.

The practical value of these scales are:

1. They provide common tests of words of a known degree of difficulty.
2. They make possible a more accurate comparison of the different groups of children.
3. They provide standard scores from the point of view of the classroom teacher.

The limitations of the scales are that:

1. The measurements lack precision because they do not measure the special results of spelling instruction.
2. They do not measure growth in the spelling efficiency.

## A Minimum Word List

This list of words from Tidyman, W. F., "Teaching of Spelling."  
World Book Company.

|             |           |           |            |            |
|-------------|-----------|-----------|------------|------------|
| able        | bad       | box       | check      | crowd      |
| about       | baggage   | boy       | cheese     | cruel      |
| absence     | ball      | branch    | chief      | cry        |
| absent      | banana    | bread     | child      | cup        |
| accept      | band      | break     | children   | cupboard   |
| accident    | bank      | breakfast | chimney    | custom     |
| account     | barn      | breast    | choose     | cut        |
| across      | basket    | brick     | chop       | daily      |
| act         | bathe     | bridge    | Christmas  | damage     |
| add         | be        | bright    | church     | damp       |
| addition    | bean      | bring     | circle     | dance      |
| address     | bear      | brother   | city       | danger     |
| affair      | beat      | brown     | class      | dark       |
| afraid      | beautiful | bruise    | clean      | date       |
| after       | because   | bug       | clear      | daughter   |
| again       | become    | buggy     | clerk      | day        |
| against     | bed       | build     | climb      | dead       |
| age         | been      | bump      | close      | deal       |
| ago         | before    | bunch     | cloth      | dear       |
| agree       | beg       | bundle    | cloudy     | death      |
| agreeable   | begin     | burn      | club       | debt       |
| ahead       | beginning | bury      | coal       | decide     |
| air         | behind    | business  | coast      | decision   |
| alike       | believe   | busy      | coat       | decorate   |
| all         | bell      | but       | coffee     | deep       |
| allow       | belong    | butter    | cold       | deer       |
| almost      | below     | button    | collect    | defeat     |
| answer      | berry     | buy       | color      | delay      |
| any         | besides   | cabin     | comb       | dentist    |
| anything    | best      | cake      | come       | depot      |
| anyway      | better    | call      | comfort    | deserve    |
| appear      | between   | came      | coming     | desire     |
| apple       | bicycle   | camp      | committee  | desk       |
| appoint     | big       | can       | common     | destroy    |
| argument    | bill      | candy     | company    | diamond    |
| arm         | bird      | capital   | complete   | die        |
| around      | birth     | car       | condition  | difference |
| arrange     | bite      | card      | contain    | different  |
| arrangement | black     | care      | continue   | dinner     |
| arrest      | blanket   | carpet    | convenient | direct     |
| arrive      | bleed     | carry     | cook       | dirt       |
| ask         | blind     | case      | copy       | disappear  |
| asleep      | block     | cat       | corn       | dish       |
| assist      | bloom     | catch     | corner     | distance   |
| association | blossom   | cattle    | cost       | divide     |
| assure      | blot      | cause     | cottage    | do         |
| attack      | blow      | cave      | cotton     | doctor     |
| attempt     | blue      | ceiling   | could      | dog        |
| attend      | bluff     | cellar    | count      | dollar     |
| attention   | board     | cent      | country    | done       |
| aunt        | boat      | center    | couple     | door       |
| automobile  | body      | certain   | courage    | doubt      |
| avenue      | boil      | chain     | course     | down       |
| awake       | book      | chair     | court      | dozen      |
| away        | born      | chance    | cousin     | draw       |
| awful       | both      | change    | crack      | dream      |
| awhile      | bother    | character | crawl      | dress      |
| baby        | bottom    | charge    | cross      | drink      |
| back        | bought    | chase     | crow       | drive      |

|             |            |              |             |          |
|-------------|------------|--------------|-------------|----------|
| drop        | feet       | gave         | hide        | lake     |
| drawn       | fell       | general      | high        | land     |
| due         | fellow     | get          | hill        | large    |
| during      | felt       | girl         | himself     | last     |
| dust        | fence      | give         | history     | late     |
| duty        | fever      | glad         | hold        | laugh    |
| each        | few        | glass        | home        | law      |
| ear         | field      | go           | honest      | lawn     |
| early       | fierce     | gold         | honor       | lawyer   |
| earn        | fifth      | gone         | hope        | lay      |
| earth       | fifty      | good         | horn        | lazy     |
| east        | fight      | good-by      | horse       | lead     |
| easy        | figure     | goose        | hospital    | leaf     |
| eat         | fill       | government   | hour        | lean     |
| edge        | finally    | grab         | house       | learn    |
| education   | find       | grade        | how         | least    |
| effect      | fine       | grain        | however     | leave    |
| effort      | finger     | grand        | hundred     | left     |
| egg         | finish     | grapes       | hungry      | leg      |
| eight       | fire       | grass        | hunt        | lemon    |
| either      | first      | grave        | hurry       | length   |
| election    | fish       | gray         | hurt        | lesson   |
| else        | five       | grease       | husband     | let      |
| end         | point      | great        | ice         | letter   |
| engine      | fix        | green        | idle        | level    |
| enjoy       | floor      | grocery      | if          | lie      |
| entertain   | flour      | ground       | ill         | life     |
| enough      | flower     | grow         | imagine     | light    |
| escape      | folks      | guard        | importance  | like     |
| especially  | follow     | guess        | impossible  | line     |
| even        | food       | guest        | in          | list     |
| evening     | foot       | guide        | inch        | listen   |
| ever        | football   | hair         | indeed      | little   |
| every       | force      | half         | industry    | live     |
| everything  | forenoon   | hall         | information | lonesome |
| examination | forest     | hammer       | inside      | long     |
| examine     | forget     | hand         | intend      | look     |
| except      | fork       | handkerchief | interest    | loose    |
| expect      | form       | handle       | into        | lose     |
| expense     | fort       | hang         | invitation  | lot      |
| experience  | fortune    | happen       | invite      | loud     |
| explain     | forty      | happy        | iron        | love     |
| express     | forward    | hard         | jail        | low      |
| eye         | found      | harness      | jewel       | lumber   |
| face        | foundation | hat          | journey     | lunch    |
| fact        | four       | hate         | judge       | lungs    |
| factory     | free       | haul         | judgment    | machine  |
| fail        | freeze     | have         | juice       | madam    |
| failure     | freight    | hay          | just        | made     |
| fair        | fresh      | he           | keep        | mail     |
| fall        | friend     | head         | kill        | make     |
| familiar    | frighten   | healthy      | kind        | man      |
| family      | from       | hear         | kindness    | manage   |
| famous      | front      | heard        | king        | manners  |
| far         | fruit      | heart        | kiss        | many     |
| farm        | full       | heaven       | kitchen     | march    |
| farther     | furnace    | heavy        | kitten      | mark     |
| fast        | furniture  | heel         | knee        | market   |
| father      | further    | height       | knew        | marriage |
| favor       | future     | hello        | knife       | marry    |
| fear        | game       | help         | knock       | master   |
| feather     | garden     | her          | know        | match    |
| feed        | gas        | here         | knowledge   | matter   |
| feel        | gather     | herself      | lady        | maybe    |



|           |            |           |           |           |
|-----------|------------|-----------|-----------|-----------|
| me        | north      | perhaps   | question  | sail      |
| meal      | nose       | period    | quick     | salary    |
| mean      | not        | person    | quiet     | same      |
| measure   | note       | personal  | quite     | satisfy   |
| meat      | nothing    | piano     | race      | saw       |
| medicine  | notice     | pick      | railroad  | say       |
| member    | now        | picnic    | rain      | school    |
| men       | number     | picture   | raise     | scratch   |
| mend      | nurse      | pie       | raisins   | sea       |
| mention   | nut        | piece     | rake      | search    |
| merry     | object     | pin       | ranch     | second    |
| middle    | occasion   | pink      | rate      | secret    |
| might     | occupy     | pity      | rather    | secretary |
| mile      | ocean      | place     | reach     | section   |
| milk      | o'clock    | plain     | read      | secure    |
| mill      | of         | plant     | ready     | see       |
| mind      | offer      | plant     | real      | seed      |
| mine      | office     | play      | really    | seem      |
| minute    | often      | pleasant  | reason    | select    |
| miss      | oil        | please    | recommend | sell      |
| mistake   | old        | pleasure  | receipt   | send      |
| mix       | omit       | plenty    | receive   | sense     |
| money     | on         | pocket    | recent    | sent      |
| month     | once       | poison    | red       | separate  |
| moon      | one        | police    | refer     | serve     |
| more      | onion      | poor      | relative  | service   |
| morning   | only       | popular   | relief    | set       |
| most      | open       | porch     | remains   | settle    |
| mother    | opinion    | position  | remark    | seven     |
| mountain  | opposite   | possibly  | remember  | several   |
| mouse     | orange     | possible  | rent      | sew       |
| mouth     | orchard    | post      | repair    | shade     |
| move      | order      | potato    | repeat    | shadow    |
| much      | other      | pound     | reply     | shake     |
| mud       | ought      | pour      | report    | shall     |
| must      | our        | power     | request   | shape     |
| myself    | ourselves  | prefer    | rest      | sharp     |
| nail      | out        | present   | result    | she       |
| name      | outside    | president | return    | shed      |
| narrow    | over       | press     | ribbon    | sheep     |
| nature    | own        | pretty    | rich      | shell     |
| naughty   | package    | price     | ride      | shine     |
| near      | page       | principal | right     | ship      |
| nearly    | paid       | print     | ring      | shirt     |
| necessary | pail       | prison    | river     | shock     |
| neck      | paint      | private   | road      | shoe      |
| need      | pair       | probably  | roar      | shop      |
| negro     | paper      | proceed   | rock      | short     |
| neighbor  | parents    | promise   | roll      | should    |
| neither   | park       | prompt    | roof      | shoulder  |
| never     | parlor     | proper    | room      | shout     |
| new       | part       | property  | rope      | shovel    |
| newspaper | particular | pull      | rough     | show      |
| next      | party      | pump      | round     | shut      |
| nice      | pass       | pumpkin   | row       | sick      |
| nickel    | past       | punish    | rubber    | side      |
| night     | pay        | pure      | rug       | sight     |
| nine      | peanut     | purpose   | rule      | sign      |
| ninety    | pear       | purse     | run       | silks     |
| no        | peculiar   | push      | rush      | silver    |
| noble     | pen        | put       | sack      | simple    |
| noise     | pencil     | quarrel   | sad       | since     |
| none      | people     | quarter   | safe      | sing      |
| noon      | perfect    | queer     | said      | sink      |

|           |           |            |            |           |
|-----------|-----------|------------|------------|-----------|
| sir       | steal     | that       | try        | while     |
| sister    | steel     | the        | turkey     | whip      |
| sit       | steep     | theater    | turn       | whistle   |
| six       | stick     | their      | twelve     | white     |
| sixty     | stiff     | them       | twenty     | who       |
| size      | still     | themselves | twice      | whole     |
| skate     | stockings | then       | two        | whom      |
| skin      | stone     | there      | ugly       | why       |
| sky       | stood     | therefore  | unable     | wide      |
| sleep     | stop      | these      | uncle      | wife      |
| sleeve    | store     | they       | under      | will      |
| slide     | storm     | thick      | understand | win       |
| slip      | story     | thin       | unless     | wind      |
| small     | stove     | thing      | until      | window    |
| smell     | straight  | think      | up         | winter    |
| smile     | street    | third      | upon       | wire      |
| smoke     | strange   | thirty     | use        | wish      |
| smooth    | straw     | this       | useful     | with      |
| snake     | strike    | those      | usual      | within    |
| snow      | string    | though     | vacation   | without   |
| so        | struck    | thought    | vegetables | woman     |
| soap      | study     | thousand   | very       | women     |
| society   | stuff     | thread     | vessel     | wonder    |
| soft      | subject   | three      | view       | wonderful |
| soil      | succeed   | throat     | village    | wood      |
| sold      | success   | through    | visit      | word      |
| sole      | such      | throw      | visitor    | world     |
| solid     | sudden    | thunder    | voice      | worry     |
| some      | suggest   | ticket     | volume     | worth     |
| somebody  | suit      | tie        | vote       | wound     |
| something | summer    | tight      | wagon      | wreck     |
| sometime  | sun       | time       | wait       | write     |
| son       | supper    | tip        | wake       | wrong     |
| song      | supply    | tire       | walk       | wrote     |
| soon      | support   | to         | wall       | yard      |
| sorrow    | suppose   | today      | want       | year      |
| sorry     | sure      | together   | war        | yellow    |
| sound     | surprise  | told       | warm       | yes       |
| soup      | sweat     | tomorrow   | wash       | yesterday |
| south     | sweep     | tongue     | waste      | yet       |
| sow       | sweet.    | tonight    | watch      | you       |
| speak     | swim      | too        | water      | young     |
| special   | swing     | took       | wave       | your      |
| spell     | system    | tooth      | way        |           |
| spend     | table     | top        | we         |           |
| spirit    | tack      | total      | weak       |           |
| splendid  | tablet    | touch      | wear       |           |
| spoil     | tail      | toward     | weather    |           |
| spoon     | take      | town       | weed       |           |
| sport     | taste     | toy        | week       |           |
| spot      | talk      | track      | weigh      |           |
| spread    | tax       | train      | weight     |           |
| spring    | teach     | tramp      | well       |           |
| square    | teacher   | travel     | went       |           |
| stack     | team      | traveler   | were       |           |
| stairs    | tear      | treasure   | west       |           |
| stamp     | tease     | tree       | wet        |           |
| stand     | telephone | trip       | what       |           |
| star      | tell      | trouble    | wheel      |           |
| start     | ten       | true       | wheat      |           |
| state     | term      | truly      | when       |           |
| station   | terrible  | trunk      | where      |           |
| stay      | than      | trust      | whether    |           |
| steady    | thank     | truth      | which      |           |

# One Hundred Spelling Demons

|           |          |         |          |           |
|-----------|----------|---------|----------|-----------|
| ache      | could    | here    | read     | too       |
| again     | country  | hoarse  | ready    | trouble   |
| always    | deer     | hour    | said     | truly     |
| among     | doctor   | instead | says     | Tuesday   |
| answer    | does     | just    | seems    | two       |
| any       | done     | knew    | separate | used      |
| been      | don't    | know    | shoes    | very      |
| beginning | early    | laid    | since    | wear      |
| believe   | easy     | loose   | some     | Wednesday |
| blue      | enough   | lose    | straight | week      |
| break     | every    | making  | sugar    | where     |
| built     | February | many    | sure     | whether   |
| business  | forty    | meant   | tear     | which     |
| busy      | friend   | minute  | their    | whole     |
| buy       | grammar  | much    | there    | women     |
| can't     | guess    | none    | they     | won't     |
| choose    | half     | often   | though   | would     |
| color     | having   | once    | through  | write     |
| coming    | hear     | piece   | tired    | writing   |
| cough     | heard    | raise   | to-night | wrote     |

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- Wallin, J. E. W., "Spelling Efficiency in Relation to Age, Grade  
 and Sex and the Question of Transfer"..... Warwick and York

## Suggestive Spelling Books

- Aldine Speller, Bruce Sherman, Kallom..... Newson & Company
- Lewis, E. E., "The Common Word Speller"..... Ginn & Company  
 Book 1, Grades 1, 2, 3, 4.  
 Book 2, Grades 5, 6, 7, 8.
- Pearson & Suzzallo, "Essentials of Spelling"..... American Book Company  
 Essentials of Spelling, Lower Grades, 2 to 4.  
 Essentials of Spelling, Middle Grades, 5 to 6.  
 Essentials of Spelling, Higher Grades, 7 to 9.
- Starch-Merick, "The Test and Study Speller"..... Silver-Burdett Company  
 First Book, Grades 2 to 4.  
 Second Book, Grades 5 to 6.  
 Third Book, Grades 7 to 8.
- Horn-Ashbaugh Spellers..... Lippincott





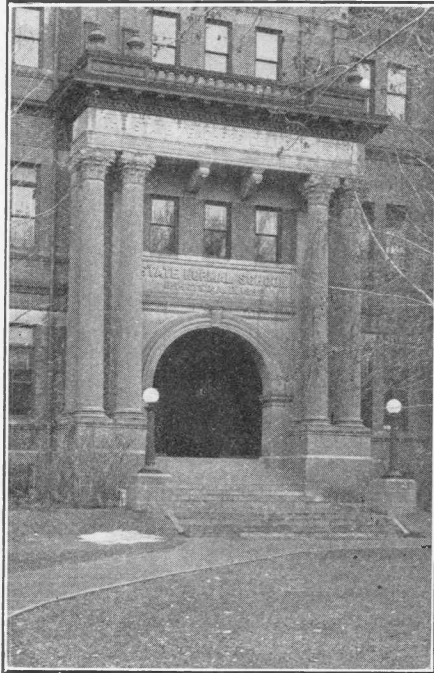
# Colorado State

Teachers  
College

Bulletin

=

Preliminary  
Announcement  
1922



The Doorway to Professionalized Teaching.  
Administration Building  
Colorado State Teachers College

## Summer Quarter

FIRST HALF

June 16

July 21

SECOND HALF

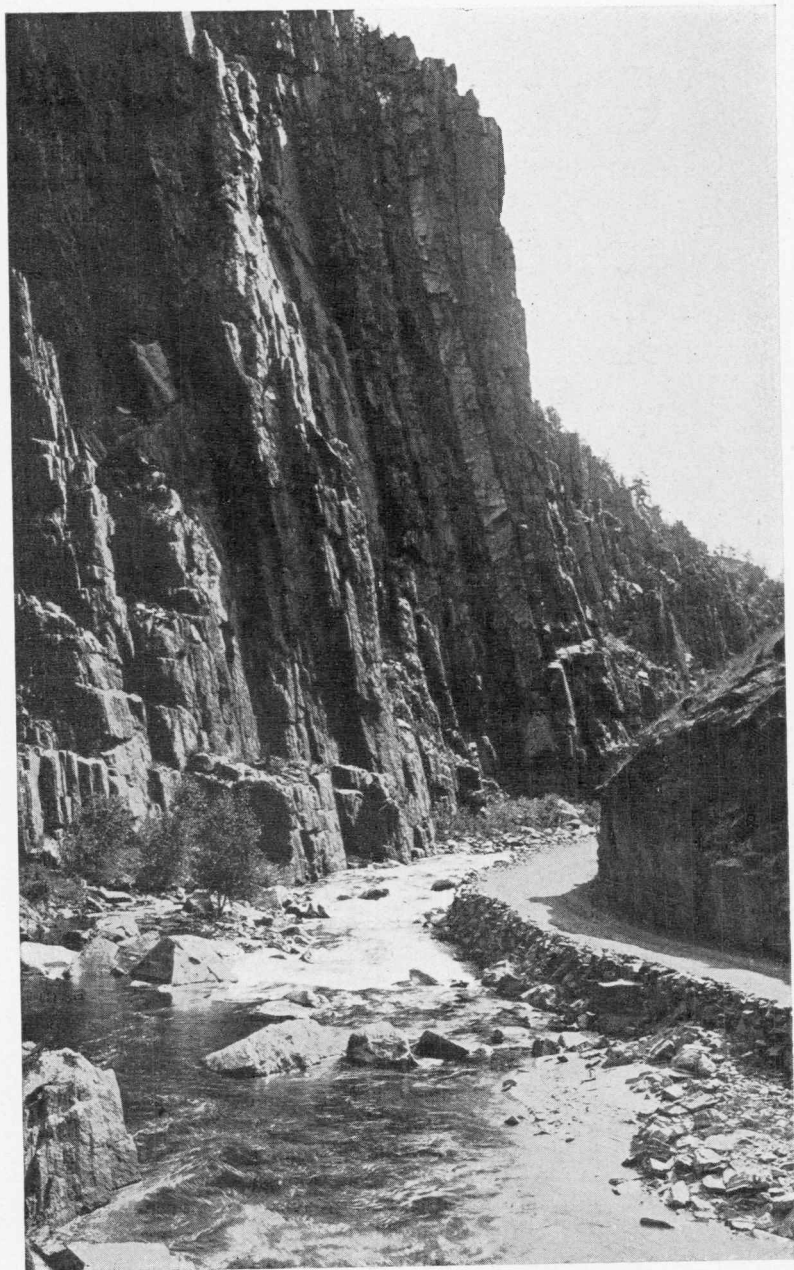
July 24

August 25

Series XXI

NOVEMBER

Number 8



**THE GATEWAY TO WONDERLAND**

Along the beautiful Thompson Canon, through which Teachers College Students make their week-end excursions on their way to an outing in Rocky Mountain National Park.



# The Summer Quarter

1922

## Colorado State Teachers College

Begins June 16—Ends August 25



### The Place

**GREELEY, COLORADO**—Under the very shadows of the majestic Rockies, whence come refreshing breezes, making it cool and comfortable even when days are hottest elsewhere. This makes Colorado State Teachers College, with its beautiful campus—forty acres of it, covered with great, spreading shade trees, and nearly all the varieties of beautiful flowers one can think of—the ideal spot for spending the summer; certainly the most attractive place one could find to spend the time in study.

### The Time

|  |                    |
|--|--------------------|
| FRIDAY and SATURDAY, June 16 and 17..... | Registration       |
| MONDAY, June 19.....                     | Classes Begin      |
| TUESDAY, July 4.....                     | Independence Day   |
| FRIDAY, July 21.....                     | First Half Ends    |
| MONDAY, July 24.....                     | Second Half Begins |
| FRIDAY, August 25.....                   | Convocation        |
| FRIDAY, August 25.....                   | Second Half Ends   |

### The Attraction

The biggest professional Teachers College in the West, with a formidable faculty of specialists in Education, and an array of special lecturers and instructors for the Summer Quarter seldom equaled.

In keeping with the high aims and purposes of the past, the College is able to announce another big program for the Summer Quarter, 1922.

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Published monthly by Colorado State Teachers College, Greeley, Colo.  
Entered as second-class matter at the postoffice at Greeley, Colo., under the act  
of August 24, 1912.

## 2,100 Teachers

attended Colorado State Teachers College during the Summer Quarter of 1921. Three reasons may be assigned for such a magnificent and significant enrollment, as follows:

- First**—Ambition; the desire of the school teacher to increase her own knowledge, and thereby increase her efficiency and usefulness. The desire of the teacher to become a professionalized teacher, and the desire of many others whose ambition is to enter the teaching profession to take advantage of the excellent opportunities for advanced education offered by Colorado State Teachers College.
- Second**—The higher standards that are being fixed by the School Boards throughout the country—standards that are demanding that school teachers be college graduates, and with this advanced condition the offer of higher salaries.
- Third**—The excellent type of educational work offered by Colorado State Teachers College; the educational qualifications of its faculty, men and women especially well trained in their respective fields; the array of educational forces secured especially for lectures and classroom work for the Summer Quarter alone, and the location of the College—in the attractive city of Greeley, a city of comfortable homes, occupied by citizens of high moral character; a city well supplied with churches; a city that has never permitted intoxicating liquors to be sold within her boundaries; a city supplied with pure mountain water; a city with well kept streets and avenues, well shaded with a variety of beautiful trees, and a city that basks under the protecting shadows of the towering Rockies and receives therefrom its cooling breezes in the Summer months.

The name and reputation of Colorado State Teachers College has spread far and wide, with the very natural result—students come here from all directions. The enrollment in the Summer Quarter, 1921, represented thirty states, in addition to the Philippines, as follows:

|            |           |              |              |
|------------|-----------|--------------|--------------|
| Alabama    | Indiana   | Montana      | Pennsylvania |
| Arizona    | Iowa      | Nebraska     | South Dakota |
| Arkansas   | Kansas    | New Mexico   | Texas        |
| California | Kentucky  | North Dakota | Utah         |
| Colorado   | Louisiana | Ohio         | Washington   |
| Georgia    | Michigan  | Oklahoma     | Wisconsin    |
| Idaho      | Missouri  | Oregon       | Wyoming      |
| Illinois   | Minnesota |              |              |

If you are in that class that seeks to keep up with the development of modern educational practice and would continue your professional education without losing time from your teaching, you will find the opportunity you are looking for at Colorado State Teachers College.

## National Playground Only Short Distance Away

A very large number of the teachers attending the Summer Quarter at Colorado State Teachers College take advantage of the opportunity afforded each week-end for trips into Rocky Mountain National (Estes) Park. Automobiles leave the College Campus every Friday afternoon during the Quarter for the Park, only fifty-five miles away. The snow-capped mountains are always visible from the College Campus, carrying not only the suggestion of cooling breezes but those actual breezes from the snow peaks are wafted over the Campus, making it an ideal place for Summer study.

Right into the very heart of the snowy range—and on up to the peak, if one desires—go these teachers who take the auto trips every Friday. They spend Friday night, Saturday and Sunday there, at home in Colorado Teachers College Camp. A comfortable place is provided for sleeping and eating, and at a very small cost.

The College this year plans to supplement the idea of recreation as typified in its week-end excursions, by making it possible for those who love nature to study her laws and to interpret her moods in the matchless setting of the Rocky Mountain National Park.

To make this ideal a reality, group extension classes will be organized in the Park. The subjects studied—Nature Study, Botany, Geography, Geology, Forestry, etc.—will be those in which the mountains themselves constitute a natural and unsurpassed laboratory.

While courses in Education, Psychology and Sociology will not be given in the Park, the Mountain Courses will correlate so closely with the Summer School at Greeley that all who take them can make at least eight quarter hours in residence work at Colorado State Teachers College and select anything from the varied curricula of this "Columbia of the West."

The number that can be accorded this privilege will inevitably be limited by the capacity of the Extension Service to provide accommodations. One group will follow another throughout the entire summer. Those desiring particulars should write to the Extension Department of Colorado State Teachers College.

It is not necessary to go to the mountains for recreation. Those who do not care to take the week-end excursions and yet who want some form of recreation will find plenty of opportunity for good, wholesome and health-giving play on the Campus.

The Campus itself is one grand park. It is a veritable forest of trees, while abundant shrubbery and fragrant flowers make it a delightful spot, always cool, and attractive alike for pleasant strolls or quiet study.

A number of tennis courts are provided for those who love this form of pastime and recreation, and arrangements are made for other outdoor games, "hikes," etc. And then there are entertainments, musical and dramatic—in fact, nothing is left undone to make the life of the student pleasant from every standpoint.

# THE COURSE

All the work given in the regular College Year will be offered during the Summer Session. In addition there will be a number of special courses.

A partial list of Courses of study that will be offered is here:

- AGRICULTURE** Farm Crops; Soil Physics and Soil Fertility; Animal Husbandry; Methods of Teaching Agriculture.
- BIOLOGY** Education Biology; (Biotics) Heredity and Eugenics; (Botany) Advanced Systematic Botany; (Zoology) Bird Study.
- ART** Applied Art for Primary Grades; Primary Grade Methods; Constructive Design; Free Drawing; Water Color Painting; Applied Art for Intermediate Grades and Junior High School; Methods for Intermediate Grades and Junior High School; Pottery, Glazing; Household Art Design; Antique; Oil Painting; Color Composition; Design; Commercial Design.
- BOOKBINDING** Elementary Bookbinding; Art Craft Bindings; Art Craft Leather Work.
- CHEMISTRY** Organic Chemistry; Advanced Organic Chemistry; Inorganic Chemistry.
- COMMERCIAL** Typewriting, beginning and advanced; Intermediate Typewriting; Advanced High School Typewriting; Bank Accounting, including the Burroughs Bookkeeping Machine; Elementary Accounting; Business Mathematics; Advanced Bookkeeping; Commercial Law; Business Administration; Penmanship Methods for Beginners, Teachers and Supervisors; High School Penmanship; Beginning Shorthand, Dictation; High School Shorthand; Business English.
- EDUCATION** Principles of Teaching; Project Method of Teaching; Teaching of Spelling; Story Telling Games and Literature for Kindergarten and Primary Children; Kindergarten Curriculum; Primary Methods; Methods of Improving Instruction in Primary Grades; Principles of Teaching in High School; Intermediate Grade Methods; The Junior High School; High School Problems; Educational Values; Research in Education; Federal Government in Education; Vocational Guidance, Current Educational Thought; Elementary School Curriculum; Primary Supervision; Supervised Study; High School Supervision; Principles Underlying the Education of Little Children; Educational Problems; Camp Fire Work; Boy Scout Work; Educa-

# OF STUDY

quarter. The regular College Faculty will for the most part be on duty, and special lecturers and instructors.

The complete catalog of courses will be ready about April 10.

|                                       |   |
|---------------------------------------|---|
|                                       | tional Administration; Educational Supervision; Philosophy of Education; School Management; County School Supervision; School Problems.   |
| <b>ETHICS</b>                         | Personal Talks; Ethical Culture.  |
| <b>GEOGRAPHY</b>                      | Geography Method; Geography of Commerce; Geography of Colorado; Geography of Australia; Human Geography.  |
| <b>HISTORY AND POLITICAL SCIENCE</b>  | State Government; Recent Europe; History of the East; Teaching of History; Teaching of Civics; Research in History.   |
| <b>HOME ECONOMICS</b>                 | Dietaries; Food and Cookery; Cooking and Table Service; Catering; Elementary Dressmaking; High School Sewing; Interior Decoration; Household Management; Costume Designing; Millinery.  |
| <b>HYGIENE AND PHYSICAL EDUCATION</b> | Plays and Games, Playground Organization, Gymnastics, General Hygiene, Recreation, Esthetic Dancing, Folk Dancing, Rhythmic Games, Classical Dancing, School Gymnastics, Anatomy, First Aid, Athletic Coaching.   |
| <b>INDUSTRIAL ARTS</b>                | Art Metal, Elementary Mechanical Drawing, Advance Machine Design, History of Architecture, Vocational Education.  |
| <b>LANGUAGES</b>                      | Beginners' Latin; Beginners' Spanish; Beginners' French; Caesar; Virgil; Tacitus; Second Year Spanish; Third Year Spanish; Second and Third Year French; Advanced or Graduate Latin, Spanish and French.  |
| <b>LITERATURE AND ENGLISH</b>         | Materials and Methods in Written English for the Elementary School; American Literature; Speaking and Writing; Journalistic Writing; English Poetry 1798-1892; Shakespeare; Victorian and Contemporary Poetry; Public Speaking and Oral Composition; Art of Story Telling; Oral English in High Schools; Methods in High School English; English Literature 1798-1900; the Recent Novel; Types of Literature; Types of Contemporary Literature. |

(Continued on next page.)

|                     |  |
|---------------------|--|
| <b>MATHEMATICS</b>  | Solid Geometry; Trigonometry; College Algebra; Analytic Geometry; Calculus; Teaching Arithmetic; Teaching Secondary Mathematics; College Algebra.  |
| <b>MUSIC</b>        | Methods for First Three Grades; Music Appreciation; Course for Supervisors; Methods for Grades 4, 5 and 6; Methods for Junior High Schools; Symphony; Interpretation of Standard Symphonies; Harmony; Chorus Work; Sight Reading.  |
| <b>PHYSICS</b>      | The Teaching of Physics, Projects Based on Practical General Physics (including household physics); Practical General Physics; Projects Based on Study of Electrostatics and Electromagnetics; Projects Based on the Study of Heat and Thermodynamics; Projects Based on the study of the Automobile; The Evolution of Modern Physical Theories. |
| <b>PRINTING</b>     | Elementary Printing; Intermediate Printing; Advanced Printing; Newspaper Work.   |
| <b>SOCIOLOGY</b>    | Educational Sociology; Principles of Sociology; Social Psychology; Evolution of Society and of Social Institutions; Sociology Seminar.   |
| <b>WOOD WORKING</b> | Elementary Wood Working; Intermediate Wood Working; Wood Turning.  |

## World Affairs and Great Problems

An added feature to the curriculum for this year will be courses under the heading of "Political and Social Problems," and "Problems in General Education."

All thinking men and women are concerned with the outlook on the world affairs today. This is one of the big problems of the race, and the educator is going to play a very prominent part in the solution of this problem. Men who are studying these affairs and who are more or less in close touch with them will be on the staff of lecturers who will conduct these special classes.

Great problems in experimental education are also commanding serious attention, and the school teacher, the principal or the superintendent who is not prepared to handle these problems in the most satisfying manner as necessity arises is going to be seriously handicapped. The special course prepared for the Summer Quarter will afford unexcelled opportunity to get the benefit of the close study of these problems by prominent educators who have been secured for the special Summer faculty.

## Make Room Reservations Now

Students desiring rooms should write early, to Miss Grace Wilson, assistant to the Dean of Women. Make it plain just what you want, and designate whether you want accommodations for five weeks or ten weeks, and every effort will be made to have the desired place waiting for you when you arrive.

# Some of the Prominent Lecturers Who Are Coming

- DR. PAUL H. HANUS**—Former Professor of Education at Harvard University. Widely known lecturer, and author of a number of volumes now in use in schools and colleges. Liberal contributor to educational journals. He will give lectures and class room work in administration.
- MR. ALFRED L. HALL-QUEST**—Professor of Secondary Education, Teachers College, University of Cincinnati. Lectures, and class room work in Secondary Education.
- DR. EDWARD T. DEVINE**—Author and Lecturer; associate editor of "The Survey," and Consulting Expert on Social Work. Former Professor of Social Economy at Columbia University. Lectures and class room work.
- DR. LEWIS M. TERMAN**—Psychologist; Professor of Education at Leland Stanford University. Member of board of psychologists appointed to revise army mental test methods for use in schools. Associate Editor Journal of Applied Psychology, Journal of Educational Research, and Journal of Delinquency. Lectures and class room work.
- DR. EDWARD A. STEINER**—Professor of Social Sciences at Grinnell College. Author "The Trail of the Immigrant," "The Immigrant Tide," and other sociological writings. Lectures and class room work.
- DR. EDWARD HOWARD GRIGGS**—Author and Lecturer on Literature and Philosophy.
- MISS LIDA B. EARHART**—Professor of Elementary Education Teachers College, University of Nebraska. Class room work in Elementary Education.
- MR. THOMAS C. TRUEBLOOD**—Head of Department of Public Speaking, University of Michigan. Author and lecturer. Lecturer in colleges and universities abroad and at home.
- DR. EMANUEL STERNHEIM**—Lecturer University of State of New York and Extension Lecturer University of Minnesota. Special lectures and class room work.
- MISS ELIZABETH CLEVELAND**—Supervisor of Girls' Activities, Detroit Public Schools. Special class room work and lectures.
- DR. EDWARD C. ELLIOTT**—Chancellor University of Montana. Author and Educator. Fellow in Teachers College, Columbia University, and former director of course for training teachers at the University of Wisconsin. Extensive writer on school administration. Lectures and class room work in administration.

(Continued on next page.)



- DR. MILTON C. POTTER**—Superintendent Milwaukee Public Schools. Former Superintendent of Schools, Pueblo, Colo. Special class room lectures on administration.
- MR. JESSE H. NEWLON**—Superintendent Denver Public Schools. Courses in Education.
- DR. WILLIAM A. WIRT**—Superintendent Gary Public Schools, Gary, Indiana. Prominent in educational world, especially through the introduction of new educational methods. Adviser to Board of Education of New York City. Special class room lectures in administration.
- MRS. CORA WILSON STEWART**—President Kentucky Illiteracy Commission, and Chairman Illiteracy Commission of the N. E. A. Founder of the Moonlight Schools, and author of the bill creating the first Illiteracy Commission. Author, and a contributor to educational magazines. Lectures and class room work.
- MR. LEE L. DRIVER**—Inspector of Pennsylvania Schools. Prominent in field of education. Special class room work and lectures.
- GOV. W. L. HARDING**—Governor of Iowa. Special lecturer.
- DR. FREDERICK E. PIERCE**—Professor of English Literature, Yale University. Class room work in English and literature.
- DR. G. W. FRAZIER**—Director Department of Classification and Statistics, Denver Public Schools. Class room lectures on psychology.
- DR. MARVIN F. BEESON**—Director Colorado Co-operative Extension Service. Special class room lectures on psychology.
- MR. PERRY GREELEY HOLDEN**—Agricultural educator and Director Agricultural Extension Department, International Harvester Company. Vice-Dean of Department of Agriculture, University of Iowa. Originator of rotation plan for vitalizing the teaching of agriculture in rural schools. Class room work.
- DR. HENRY H. GODDARD**—Director Ohio Bureau of Juvenile Research. Lecturer on psychology of mental defectives at New York University for several years; author of School Training of Defective Children and a writer on education, eugenics, defective children and related topics.

## Things You Should Know

Colorado State Teachers College is located in Greeley, Colorado, on the Union Pacific Railroad, fifty-two miles north of Denver.

Only thirty miles from the mouth of the Big Thompson Canon, the entrance to Rocky Mountain (Estes) National Park.

The population of Greeley is 14,000.

The drinking water is piped all the way from the snow-capped peaks of the Rockies.

Almost the entire stretch of the Rocky Mountain Range can be seen from the Campus.

Campus covers forty acres, and is declared by world travelers to be one of the most attractive college campuses in the country.

# The Opportunity

Colorado State Teachers College Summer School is THE OPPORTUNITY for everybody seeking better education. It is the opportunity not only for the graduate and the undergraduate, but for the man or the woman who has been forced to quit school before completing the High School course and who is still anxious to get an education.

The unclassified division is maintained for any teachers or prospective teachers 20 years old or over. Such students are permitted to select such studies as they can profitably carry. The work of such students will not be kept on the permanent records of the College until such students have complied with the full terms of the College entrance requirements.

Its greatest opportunity is presented to those already engaged in the Teaching profession. Timed when the weather is the hottest in other sections of the country, and when weather conditions are the most inviting in Colorado, it makes it possible for teachers to spend their vacation period profitably. It makes it possible for teachers to use the only time of the year which they can secure in taking the advanced work which they need in order to obtain their college degrees, and most certainly that which they need if they hope to keep abreast of the advance in education and profit by the high standards set and the higher salaries being offered professionalized teachers.

Courses offered lead to Life Certificates for teaching, obtained in two years; bachelor's degree in education, requiring four years, while the Graduate School offers the opportunity for post-graduate work and the master's degree.

Credits from other colleges, provided high school graduation is required for admission by such institutions, are accepted by Colorado State Teachers College, and the student given advanced standing for such work. Credits obtained at this institution are acceptable in practically all the leading Colleges and Universities in the country, and the certificates and degrees granted by this college are sufficient for teaching in nearly all the states.

The quarter will be divided again this year into halves of five weeks each. The course is designed to cover the full period, although credit is given in many of the subjects for a half quarter. Arrangements can be made to take a half or the full quarter. The first half starts with registration on June 16 and 17; classes begin June 19. The first half ends July 21. The second half begins July 24. The second half ends on August 25. Students taking the full quarter or the last half are given time to return to their homes before the opening of the fall period of school.

Necessity for registering on the dates set apart for that important matter should be closely observed by all those contemplating enrolling for the Summer Quarter, or either half of it. An additional fee of \$2.00 is charged for late registration. Furthermore, the student who registers

after the work of the quarter begins is in danger of losing some of the credit which he or she might otherwise earn.

## Living Accommodations

In the new Dormitories, with all the comforts and conveniences one may desire, a large number of women students may be housed. Only those who plan early and make reservations can, however, enjoy the dormitory life. The other students will find very good accommodations in the large and comfortable private homes of the citizens of Greeley.

Bulletin containing complete information concerning the Summer Quarter will be mailed on request.



## Expenses for the Quarter

Board may be secured in a number of private homes surrounding the campus, at an average cost of \$6.00 a week, while the College Cafeteria, operated at cost, will afford a slight saving for those who get their food there. An average of 1,200 students daily were fed in the College Cafeteria last Summer. The average cost to these students was \$5.00 a week.

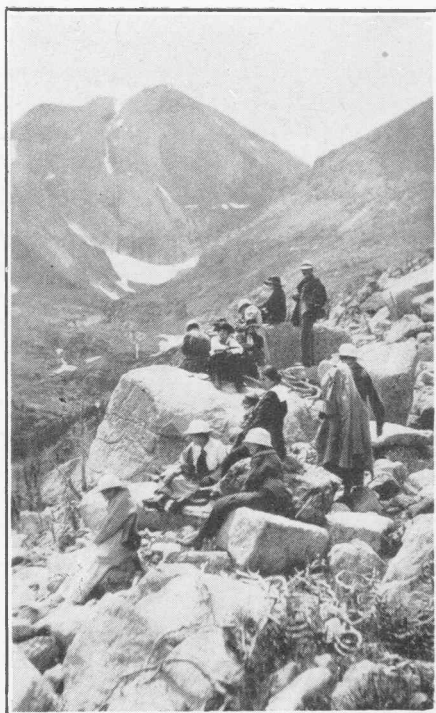
An estimate of the average expense of attending Colorado State Teachers College for the full ten weeks of the Summer Quarter figures as follows:

|             |          |
|-------------|----------|
| FEES .....  | \$30.00  |
| ROOM .....  | 20.00    |
| BOARD ..... | 50.00    |
| BOOKS ..... | 5.00     |
| TOTAL ..... | \$105.00 |

**MAKE YOUR PLANS NOW.  
SEND FOR FULL  
INFORMATION**

Address

**J. G. CRABBE, President  
Greeley, Colorado**



**ON TOP OF THE MOUNTAIN**  
Teachers College Summer Students on a week-end pleasure jaunt. Within easy reach by auto.

# Colorado State Teachers College Bulletin

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Series XXI

MARCH, 1922

Numbers 9-12

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## THE SUMMER QUARTER 1922



GREELEY, COLORADO

June 16 to August 25

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Published Monthly by Colorado State Teachers College,  
Greeley, Colo.

Entered as Second Class Matter at the Postoffice at  
Greeley, Colorado, under the Act of August 24, 1912

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# IMPORTANT ANNOUNCEMENTS

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## THE SUMMER QUARTER OPEN TO ALL

Any person twenty years of age or over, whether a high school graduate or not, may enroll in the College for the Summer Quarter and take such subjects as he is interested in and able to carry. A record of attendance and a list of the subjects taken will be kept. College credit toward graduation is given only to those who meet the entrance requirements as stated on page 10. Students who attend the summer quarter without submitting high school credentials may later present these and have their marks previously earned transferred to the regular credit records of the College.

The College, as usual, divides the Summer Quarter into two equal half quarters for the convenience of the few students who can attend for only a part of the time. Only those courses which are designated "First Half," "Second Half," or "Either Half" carry credit for less than the full quarter. All other courses must be carried for the full quarter, if taken for college credit. There are fewer of these half quarter courses this year than formerly, because of the lessening demand for them. Most summer school students are arranging to remain for the full quarter and earn a full quarter's credit toward graduation.

## REGISTRATION—PAYMENT OF FEES

All students who expect to be in attendance for the full quarter should make up a program card for the whole quarter. The quarter fees will be paid all at once or for the student's convenience in two parts—one-half June 16 and the second half July 24.

**Late Registration**—Students registering after June 17 (for the first half quarter) or July 24 (for the second half) pay a fee of \$2.00 for late registration. Except by special permission of the Dean of the College, no student, after his first quarter of school work during any given school year, who registers after the first day of the quarter shall under any consideration be allowed to take more than sixteen hours of work, and no additional credit for A's or AA's will be allowed such student for the work of the quarter in which he has registered late. If the student is more than three days late the total number of hours on his program will be reduced in proportion to the time lost.

Any student absent from class on the last day of the quarter will have his quarter report for that class turned in as incomplete unless he has a written permit from the President or Dean to leave before the close of the quarter. No teacher has authority to excuse a student from one of his courses before the close of the quarter.

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# Colorado State Teachers College Bulletin

## THE SUMMER QUARTER

1922



### DATES

The Quarter: June 16-August 25

First Half: June 16-July 21

Second Half: July 24-August 25

## The Faculty

Summer Quarter, 1922

- JOHN GRANT CRABBE, A.B., A.M., Pd.M., Pd.D., LL.D., President.  
 W. D. ARMENTROUT, A.M., Director of the Training School and Professor of Student Teaching.  
 GRACE M. BAKER, Professor of Fine and Applied Arts.  
 GEORGE A. BARKER, M.S., Professor of Geography, Physiography and Geology.  
 JOHN R. BELL, Ph.B., A.M., D.Litt., Director of Extension Service.  
 RALPH T. BISHOP, Associate Professor of Industrial Arts.  
 HAROLD G. BLUE, A.B., Social Science, High School.  
 LESTER W. BOARDMAN, A.B., A.M., Professor of Literature and English.  
 WILLIAM GRAY BOWERS, Ph.D., Professor of Chemistry.  
 ALBERT E. BROWN, A. M., Professor of Secondary Education.  
 MARGARET BRYSON, M.D. Medical Adviser of Women.  
 MARK BURROWS, A.B., Professor of Rural Education.  
 VERA CAMPBELL, Assistant Librarian.  
 ALBERT FRANK CARTER, A.B., M.S., Librarian; Professor of Library Science.  
 EUGENE SHAW CARTER, Instructor of Violin.  
 JEAN CAVE, Assistant Professor of Physical Education.  
 ELIZABETH CLASBEY, Assistant Professor of Household Science.  
 AMBROSE OWEN COLVIN, B.C.S., Professor of Commercial Education.  
 EDITH CREMEANS, Assistant Librarian.  
 ETHAN ALLEN CROSS A.B., A.M., Dean of the College. Professor of Literature and English.  
 HELEN C. DAVIS, A.B., A.M., Training Teacher, Junior High School, Geography.  
 HULDA A. DILLING, B.E., Training Teacher, Third Grade.  
 EDWIN STANTON DUPONCET, A.B., Ph.D., Professor of Modern Foreign Languages.  
 GEORGE WILLIAM FINLEY, B.S., A.M., Professor of Mathematics.  
 CHARLES M. FOULK, Pd.B., Professor of Manual Training.  
 HELEN GILPIN-BROWN, A.B., Dean of Women.  
 SAMUEL MILO HADDEN, Pd.B., A.B., A.M., Dean of Practical Arts. Professor of Industrial Education.  
 WILLIAM HENRY HARGROVE, B.S., Professor of Agriculture.  
 JOSEPHINE HAWES, A.B., A.M., English, High School.  
 JACOB DANIEL HELLMAN, A.B., Ph.D., Professor of Educational Psychology.  
 IRA WOODS HOWERTH, A.M., Ph.D., Professor of Sociology and Economics.  
 F. C. JEAN, A.B., A.M., Professor of Biology.  
 ELIZABETH HAYS KENDEL, Pd.B., Pd.M., A.B., Training Teacher, Sixth Grade.  
 JOHN CLARK KENDEL, A.B., Director of the Conservatory of Music. Professor of Public School Music.  
 HAZEL KENNEDY, A.B., Assistant in Music, Piano.  
 MARGARET JOY KEYES, A.B., Assistant in Physical Education and Dramatic Interpretation.  
 W. L. KNIES, Commercial Education.  
 GLADYS E. KNOTT, B.S., M.S., General Science, High School.  
 E. W. KNOWLES, M.D., Medical Adviser of Men.  
 WM. M. LAUX, A.B., A.M., Assistant, Latin, Spanish, French.  
 ROYCE REED LONG, A.B., Director of Hygiene and Physical Education.  
 GENEVIEVE LYFORD, B.S., Kindergarten.



FLORENCE LOWE, Pd.M., Instructor in Fine and Applied Arts.  
 THOMAS C. MCCrackEN, A.B., A.M., Ph.D., Dean of the Graduate School.  
 Professor of the Science and Art of Education.  
 ANNIE McCOWEN, A.B., B.S., A.M., Training Teacher, Fifth Grade.  
 VIVIAN MERRIMAN, Assistant Professor of Commercial Arts.  
 SONORA METSKER, B.S., M.S., A.M., Training Teacher, Eighth Grade.  
 IRVING MILLER, Instructor in Voice.  
 BERNICE ORNDORFF, Ph.B., Training Teacher, Seventh Grade.  
 WILLIAM B. PAGE, M.D., Assistant Librarian.  
 ORA B. PEAKE, A.B., A.M., History; High School Preceptress.  
 HOMER B. REED, Ph.D., Associate Professor of Psychology.  
 OTTO W. SCHAEFER, Associate Professor of Bookbinding.  
 MARGARET M. ROUEBUSH, A.B., Director and Professor of Home Economics.  
 WILLIAM E. SEARCH, Associate Professor of Physical Education.  
 JOHN H. SHAW, Director of Official Publications, and Instructor in Journalistic Writing.  
 BELLA BRUCE SIBLEY, Pd.B., Pd.M., A.B., A.M., Training Teacher, Second Grade.  
 CLARA SMELSER, B.S., A.M., Training Teacher, First Grade.  
 EDWIN B. SMITH, B.S., A.M., Professor of History and Political Science.  
 EDITH STEPHENS, A.B., Assistant Librarian.  
 FRANCES TOBEY, B.S., A.B., Professor of Oral English.  
 SUSAN VAN METER, Training Teacher, Fourth Grade.  
 I. E. VARVEL, D.D.S., Dental Examiner.  
 EDITH GALE WIEBKING, Assistant Professor of Household Arts.  
 VERA WIRT, A.B., Associate Professor of Household Science.  
 FRANK LEE WRIGHT, A.B., A.M., Professor of Education.  
 M. EVA WRIGHT, Piano and Pipe Organ.  
 DAVID L. ZYVE, A.B., M.S., Professor of Physics.

### GENERAL LECTURERS AND SPECIAL TEACHERS

Summer Quarter, 1922

The College announces the completion of plans for the summer lectures and special teachers for the coming summer quarter to include the following men and women of national educational fame.

Twelve of these will be called upon for evening lectures, some of them giving a series of five lectures during the evenings of one week. In addition to this, most of the general lecturers will teach in regularly organized classes for periods of from one week to a full quarter.

In certain courses several of the visiting instructors teach through consecutive weeks. The classes will be in charge of resident instructors when not under the direction of visiting teachers and lecturers.

*Special Notice:* If you wish to get better acquainted with many of these special teachers, schedule on your program the "Special Courses" listed on page 19.

- DR. PAUL H. HANUS, former Professor of Education at Harvard University. Lecturer, and author of a number of volumes now in use in schools and colleges.
- DR. ALFRED L. HALL-QUEST, Professor of Secondary Education, Teachers College, University of Cincinnati. Lectures, and classroom work in Secondary Education.
- DR. EDWARD T. DEVINE, Author and Lecturer; Associate Editor of "The Survey," and Consulting Expert on Social Work. Former Professor of Social Economy at Columbia University. Lectures and class room work.

- DR. LEWIS M. TERMAN, Psychologist; Professor of Education at Leland Stanford University. Member of Board of Psychologists appointed to revise army mental tests for use in schools. Associate Editor Journal of Applied Psychology, Journal of Educational Research, and Journal of Delinquency. Lectures and class room work.
- DR. EDWARD A. STEINER, Professor of Social Sciences at Grinnell College. Author, "The Trail of the Immigrant." "The Immigrant Tide," and other sociological writings. Lectures and class room work.
- DR. EDWARD HOWARD GRIGGS, Author and Lecturer on Literature and Philosophy.
- MISS LIDA B. EARHART, Professor of Elementary Education, Teachers College, University of Nebraska. Class room work in Elementary Education.
- MR. THOMAS C. TRUEBLOOD, Head of Department of Public Speaking, University of Michigan. Author and lecturer. Lecturer in colleges and universities abroad and at home.
- DR. EMANUEL STERNHEIM, Lecturer, University of State of New York and Extension Lecturer University of Minnesota. Special lecturer and class room work.
- MISS ELIZABETH CLEVELAND, Supervisor of Girls' Activities, Detroit Public Schools. Special class room work and lectures.
- DR. EDWARD C. ELLIOTT, Chancellor University of Montana. Author and Educator. Fellow in Teachers College, Columbia University, and former Director of Course for training teachers at the University of Wisconsin. Extensive writer on school administration. Lectures and class room work in administration.
- MR. JESSE H. NEWLON, Superintendent, Denver Public Schools. Courses in Education.
- DR. MILTON C. POTTER, Superintendent, Milwaukee Public Schools. Former Superintendent of Schools, Pueblo, Colo. Special class room lectures on administration.
- DR. WILLIAM WIRT, Superintendent, Gary Public Schools, Gary, Indiana. Prominent in educational world, especially through the introduction of new educational methods. Special class room lectures in administration.
- MRS. CORA WILSON STEWART, President Kentucky Illiteracy Commission, and Chairman Illiteracy Commission of the N. E. A. Founder of the Moonlight Schools, and author of the bill creating the first Illiteracy Commission. Author, and contributor to educational magazines. Lectures and class room work.
- DR. LEE L. DRIVER, Inspector of Pennsylvania Schools. Prominent in field of rural education. Special class room work and lectures.
- DR. FREDERIC E. PIERCE, Professor of English Literature, Yale University. Class room work in English and literature.
- DR. G. W. FRAZIER, Director, Department of Classification and Statistics, Denver Public Schools. Class room lectures on psychology.
- DR. MARVIN F. BEESON, Director Colorado Co-operative Extension Service. Special class room lectures on psychology.
- DR. PERRY GREELEY HOLDEN, Agricultural Educator and Director, Agricultural Extension Department, International Harvester Company. Vice-Dean of Department of Agriculture, University of Iowa. Originator of rotation plan for vitalizing the teaching of agriculture in rural schools. Class room work.
- DR. HENRY H. GODDARD, Director, Ohio Bureau of Juvenile Research. Lecturer on psychology of mental defectives at New York University for several years; author of School Training of Defective Children, and a writer on education, eugenics, defective children and related topics.

- MISS MYRTLE L. KAUFMAN, Supervisor of Elementary Schools, Logansport, Indiana. Class room work in elementary education.
- ROSCOE GILMORE STOTT, Franklin, Indiana. Associate Editor, "Lyceum Magazine"; celebrated platform speaker and chautauqua lecturer. Special evening lectures.
- MRS. LOUISE B. HILL, in charge of the Department of History, Government and Economics in the Bennett School of Liberal and Applied Arts, Millbrook, N. Y. Lecturer and Instructor in Social Science, Education, Parliamentary Law, Current Events.
- C. W. RICHARDS, Superintendent of Schools, Ardmore, Oklahoma, where he introduced all-year-round school. Successful administrator. Course in administration.
- G. E. BROWN, Superintendent of Schools, Greeley, Colorado. Courses in administration, including the elementary curriculum, philosophy of education, and educational problems.
- EMILY GRIFFITH, Principal of the Denver Opportunity School. One lecture on the work of this famous school.
- DR. SIDNEY TEDESCHE, of the Jewish Chautauqua Society. Three lectures on "The Golden Age of Spanish Jewish History."

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## The Summer Quarter, 1922

The Summer Quarter of 1922 will in general follow the plans begun in 1918. The quarter will be but a little shorter in actual time than the other three quarters of the college year. Each instructor will include all the material in his courses that he regularly uses and will give full time to each topic. A student will carry sixteen hours of work the same as in other quarters. This includes the usual two hours credit for the evening lectures.

This year the policy of bringing in from other institutions, not only lectures, but class-room teachers as well will be continued and extended. Twenty-eight lecturers and teachers from other educational institutions will be in Greeley, to give the best they have to the summer school students.

### THE GROWTH OF THE SUMMER SCHOOL

The Summer School of Colorado State Teachers College began its work in 1905 with a small faculty group and about two hundred students. In 1910 practically the whole faculty, exclusive of the training school and high school teachers, remained to teach through the six weeks of the summer school. In that year there were 443 students. In 1918 the summer term was placed upon an academic level with the other quarters of the college year. The term was lengthened to a quarter and the credits were made equal in value with those of the college year. With this step the college entered upon the four-quarter year. The change proved to be a popular one. The attendance increased instead of falling off with the lengthened term, augmented expense, and diminished credit for the work done. Today the teachers, not only of Colorado but of neighboring and distant states as well, recognize the fact that the College is doing a large service to the profession of teaching by making it possible for active teachers to keep up with the development of modern educational practice and to continue their professional education without losing time from their teaching. Two thousand teachers each year avail themselves of the opportunity.

### WHO MAY ATTEND THE SUMMER QUARTER CLASSES

Admission to the College at other times is limited to those who have completed fifteen units of high school work. The strict observance of this rule during the summer would make it impossible for hundreds of experienced teachers, who are not high school graduates, to get in touch with all the new movements in education which the College faculty and visiting instructors are presenting to the Summer Quarter students. In 1920 for the first time the College opened the summer classes to all who might profit by the instruction offered.

Any student twenty years of age or over may be enrolled in Colorado State Teachers College for the summer quarter without reference to meeting the College requirement for admission. The College believes it can render a valuable service to the teachers of Colorado and surrounding states by allowing any mature man or woman who is teaching or expecting to teach, but who has not graduated from a high school, to enroll in the College for the Summer Quarter and take from the complete College program such work as he or she may be able to carry.

No college credit will be recorded, however, for any student until the requirements for College entrance have been fully met. A record of attendance and work done will be kept. This may later be transferred to the permanent records and counted toward graduation when the entrance requirements have been complied with.

### FEEES AND EXPENSES

**Board**—Students board in private homes, boarding houses, and in the College Cafeteria. The cafeteria was started to enable students to keep the outlay for board down to a figure of approximate cost. Last summer the average cost of board for 600 students in the cafeteria was \$5.00 a week. It will not be higher than that this year.

**Rooms**—Private houses in the vicinity of the College provide rooms for students. With two students in a room the cost is seven, eight, or nine dollars a month for each student.

**Dormitories**—The first three units in the Dormitory Triangle, opened for use early in the Fall Quarter of 1921, provide accommodations for 110 women students. Each room is provided with two beds, with complete accommodations for two students. Rooms in the Dormitories cost from \$18.00 to \$24.00 for the quarter.

**Light Housekeeping**—A limited number of rooms for light housekeeping are available at a reasonable rental. The assistant to the dean of women, Miss Grace Wilson, will supply prospective students with lists of rooms upon request.

**Reservations**—Students expecting to register for the Summer Quarter should make reservations early. Write to Miss Wilson, and state specifically what you want, whether it is a single room, double room, housekeeping rooms, in the Dormitories or in private homes. It would be well to name first and second choices. State whether you want accommodations for full quarter or half quarter.

**College Fees**—The state provides funds for the maintenance of the College for three quarters in the year. The Summer Quarter has the use of the College buildings and equipment but finds it necessary to draw its financial support largely from student fees. Each student pay \$15.00 for a half quarter, or \$30.00 for the full quarter. Students not citizens of Colorado pay an additional fee of \$5.00 for the full quarter.

All students who expect to be in the College for the full quarter are expected to make out their programs of studies for the full time. The

fees, however, may be paid in two parts, one-half on June 16, and the other, July 24.

**Books**—Books may be bought from the College book room. At the end of the quarter any book in good condition and still to be used as a college text book, may be resold to the book room at a slight discount.

Students may check towels from the Bookroom, upon the deposit of \$1.50. Clean towels may be drawn by returning soiled ones. When all towels are returned, 50c will be returned to the depositor.

The table below represents a median of expense—neither the least possible nor the highest—and covers the three large items of college expense.

#### APPROXIMATE EXPENSE FOR TEN WEEKS

|                          |                 |
|--------------------------|-----------------|
| Room .....               | \$ 20.00        |
| Board .....              | 50.00           |
| College Fees .....       | 30.00           |
| Books and supplies ..... | 5.00            |
| Total .....              | <u>\$105.00</u> |

#### DIPLOMAS, CERTIFICATES AND DEGREES

The Colorado State Life Certificate is granted to all graduates of any of the two-year or three-year courses of study. This certificate is honored as a state life certificate for elementary school teachers in practically all Western states and in many Southern and Eastern states as well. The degree of Bachelor of Arts in Education is granted to candidates who complete any of the four-year courses. The degree of Master of Arts in Education is conferred on candidates who carry their school studies with distinct success one full year beyond a recognized bachelor's degree. A thesis is also required for the master's degree. Both the bachelor's and master's diplomas are also state life certificates under the laws of Colorado.

#### LOCATION OF THE COLLEGE

As this bulletin goes to several thousand teachers and students who have never visited Colorado, a few words may fittingly be said here regarding Colorado State Teachers College and Greeley as to location and climate.

Greeley is one of the most beautiful small cities to be found anywhere. It is situated 52 miles north of Denver, within plain view of the Rocky Mountains, in the heart of the richest farming country in the world. Its homes shelter an intelligent population of over 14,000 persons. Its streets are broad and shady, its lawns well kept; its water supply is piped 38 miles from a mountain canon, and is pure and soft. It is pre-eminently a city of homes, schools, and churches.

The altitude, 4,567 feet above sea level, insures clear, dry air, sunny days and cool nights. Seldom does the night temperature go above 70 degrees, even in the hottest part of the summer; 60 or 65 degrees at night is usual. Because of the low percentage of humidity, even the hottest midday is seldom oppressive, and sunstroke is unknown.

One may accomplish a given amount of brainwork here with the minimum of energy and fatigue, while recuperation comes quickly. This statement is true of the entire year.

#### RECREATION

The now celebrated week-end excursion to the Rocky Mountain National Park conducted by the Outing Committee of Colorado State

Teachers College will be continued this year on a larger scale than ever.

Teachers College Mountain Club now possesses more than seven hundred dollars worth of camping equipment, tents, sleeping bags and camp fixtures, etc., that make possible an outing that measures up to all the possibilities that heart could desire.

The most unusual and from many points of view, the most interesting experience is the night spent at timberline just three hundred feet from one of the mightiest snowdrifts in the mountains.

Starting from this point of vantage, each week-end group moves in the early dawn through the mysterious and awe-inspiring region where no trees can live to the summit of the Rocky Mountains and at the "Keyhole" looks down on a hundred square miles of mountain peaks, snow-filled gorges, beautiful lakes and waterfalls, and majestic forests. It is really the experience of a lifetime.

**Summary of Week-End Trip**—The autos start from the west gate of the college at 7:00 a. m. each Friday of the Summer Quarter, plans for lunch at Camp C.T.C. in Estes Park, and then proceed to Long's Peak Inn.

The cars are left a mile above the Inn and the party climbs in the late afternoon and early evening to Camp Timberline where tents and bonfires are in readiness.

The first day is devoted to the trip to timberline and the second to the mountains above timberline, and the third to the scenic points in the Rocky Mountain National Park.

**Cost and Equipment**—The entire charge for the 150 miles covered in the three days is \$10.00—less than 7 cents a mile. The seven meals cost \$4.00. Two nights lodging costs \$1.50. The total cost to those who go as far as Long's Peak Inn is \$15.50. Those who wish to spend the day at Long's Peak must pay an additional \$2.00 to cover the cost of establishing and maintaining Camp Timberline.

All persons expecting to make this trip must provide themselves with warm underwear, common work dresses (outing suits preferred), heavy soled shoes, that they are willing to have scuffed, and a rain coat.

## BUILDINGS AND EQUIPMENT

**Buildings**—The buildings which are completed at the present time consist of the Administration Building, the Library Building, the President's House, the Training School, Home Economics Building, Dormitories, Women's Club House, Model Cottage and the Industrial Arts Building. The main, or Administration Building, is 240 feet long and 80 feet wide. It has in it the executive offices, classrooms, and class museums. Its halls are wide and commodious and are occupied by statuary and other works of art which make them very pleasing.

The library is a beautiful building. The first floor is entirely occupied by the library, consisting of more than fifty thousand volumes. The furniture in the library is of light oak and harmonizes with the room in a most pleasing manner. The basement is occupied by committee rooms, text book department, wild animal museum, and the departments of hygiene and agriculture.

The Training School is a commodious building of red pressed brick similar in style to the Administration Building. In its construction no pains or expense have been spared to make it sanitary, fireproof, and in every possible way an ideal building for a complete graded school from the kindergarten to the high school, inclusive.

The Simon Guggenheim Hall of Industrial Arts is a beautiful structure in the classic style of architecture. It is constructed of gray pressed brick. It accommodates the departments of Manual Training and Art, including every branch of handwork and art training applicable to the highest type of public school of the present and immediate future. This building is a gift to the College from ex-Senator Simon Guggenheim.

The President's House is on the campus among the trees. In this beautiful home are held many social gatherings for students during the school year.

A temporary wooden structure was completed to take care during the war period of the needs for a modern gymnasium and auditorium.

The new Dormitories were opened early in the fall quarter. Three beautiful buildings were opened for use, forming the first units in a proposed group of seven. The Dormitories are located on an additional plot of ground recently acquired, and directly south of the old Campus. They are built on the cottage plan, each building being a complete unit in itself. The buildings are of ivory tint both outside and inside, and a touch of the quaint Colonial style is given by green shutters. A large reception room stretches across the entrance to each of the buildings. A fireplace adds to the comforts as well as the attractiveness on chilly mornings or evenings. An open stairway leads to the floor above, where the cozy rooms of the students are located. Most of the rooms contain two beds, with a study table, dressers and chairs, and the floor coverings and the draperies add to the cheeriness. A matron is in charge of each building, while the dean of women has general supervision.

**The Campus**—Surrounding the buildings is a beautiful campus of forty acres. It is covered with trees and grass, and dotted here and there with shrubs and flowers, which give it the appearance of a natural forest. During the summer, birds, rabbits, squirrels and other small animals make the campus their home, thus increasing its value as a place of rest, recreation, or study.

During the summer and fall quarters the faculty gives its evening reception to the students on the campus. At this time it presents a most pleasing appearance, being lighted, as it then is, by electric lights and Japanese lanterns.

In the rear of the buildings is a large playground, which covers several acres. In the southwestern portion of this playground is a general athletic field, a complete view of which is secured from a grandstand, which will accommodate more than a thousand spectators. On the portion of the ground adjacent to the buildings there is a complete outdoor gymnasium. To the south of the buildings are located the tennis courts and the garden theater.

During the summer, courses on the organization of playgrounds will be given, and demonstration of how to carry out these courses in the public schools will be made on the campus.

**Equipment**—The institution is well equipped in the way of laboratories, libraries, gymnasiums, playgrounds, an athletic field, art collection, museum, and a school garden. The library has 50,000 volumes bearing on the work of a teachers college. There is ample opportunity to work out subjects requiring library research. There is a handicraft department with the library wherein a student may learn how to conduct a library. The gymnasium is well equipped with modern apparatus. Games of all sorts suitable for schools are taught.



### ADMISSION TO THE COLLEGE, COURSES OF STUDY, GRADUATION, ETC.

**Regular Admission to the College**—Admission to the College is granted to those who present a certificate of graduation showing the completion of fifteen or more units in an acceptable high school. This certificate must be presented at the time of matriculation in the College, and should be accompanied by a transcript of the high school record, showing what subjects were studied and the number of units or the fraction of a unit made in each. A "unit" is a subject pursued for thirty-six weeks, with five recitations per week.

**Conditional Admission**—An applicant who is twenty years old or over, who is not a high school graduate, but who is credited with fourteen high school units may be admitted to the College upon presenting a transcript from a reputable high school, showing the completion of fourteen units. This admission is conditioned. Such students are limited to a maximum program of twelve hours per quarter and must make up the deficient high school unit in the Industrial High School during the student's first year in the College. The student could not be enrolled for the second year until the entrance condition had been removed.

**School for Adults**—Mature students over twenty years of age who have less than fourteen high school units of credit will be assigned to the School for Adults—a division between the high school and the College. As soon as they have completed the equivalent of fifteen high school units, or shown the learning power which such completion usually gives, they may be granted a certificate of high school graduation and admitted to the College.

**Special Registration for the Summer Quarter Only**—Many students come to the College for the Summer Quarter only and do not wish to go through the formality of presenting credentials for entrance. They do not expect to graduate and so do not care to have a permanent record of their credits made. Provision for these is made in the statement printed inside the front cover of this bulletin.

**Organization**—The College is an institution for the training of teachers. It graduates students upon the completion of a two-year course. Advanced students are graduated upon the completion of courses covering three, four, or five years.

**Function**—The purpose of the College is to train teachers for public school service. Being supported by public taxation of all the property of the State of Colorado, the College aims first to prepare teachers for all the kinds of public schools maintained within the State of Colorado. This includes rural schools, kindergartens, primary, intermediate grade, upper grade, junior high school departments, and high schools. The College also accepts the responsibility of training supervisors for rural schools, principals, superintendents, teachers of home economics, practical arts, fine and applied arts, critic teachers, teachers of defective and atypical children, teachers for adult night schools, etc.

While the College is supported for the training of Colorado teachers, it welcomes students from any state or country and sends its teachers anywhere that they may be called. Students come to Colorado State Teachers College from many states and its graduates go in large numbers into the neighboring states and in smaller number into distant states and countries.

The College recognizes as its plain duty and accepts as its function the training of students to become teachers in every type of school at

present supported by the state, to meet actually all the demands for the best in the public school system of the present, and to forecast those improvements and reforms which the evolution of public systems of education is to bring about in the immediate future and to train teachers to be ready to serve in and direct the new schools which are in the process of being evolved.

**Advanced Standing**—Students who come to the College after having done work in another college, normal school, or university will be granted advanced standing for all such work which is of college grade, provided that the college or normal school in question has required high school graduation as a condition for admission. Those who receive advanced standing are required to take here all the prescribed "core" subjects in the course they select, unless these prescribed subjects or their substantial equivalents have been taken already in the normal school or college from which the student comes. Only the heads of the departments involved have the power to excuse students from taking these prescribed "core" subjects. No advanced standing is granted for additional units above the usual sixteen earned in the four-year high school course. If college subjects have been studied in a fifth year in a high school, such credit as these subjects deserve will be allowed.

On September 1, 1921, the College discontinued giving credit for all kinds of work except that certified as having been taken in recognized normal schools, teachers colleges, colleges, or universities.

Those who expect to attend the Summer Quarter of Colorado State Teachers College and who desire advanced standing, should write for application blanks for advanced standing at their earliest convenience, and should return these as soon as possible, together with credentials to the College, so that they may be considered before the opening of the quarter. It is exceedingly important that full credentials relative to all the work for which credit is expected be forwarded. This saves the student much delay and inconvenience.

**The Unit of College Credit**—All credit toward graduation is calculated in quarter-hours. The term **quarter-hours** means a subject given one day a week through a quarter of a year, approximately twelve weeks. Most of the college courses call for four recitations a week. These are called four-hour courses. A student usually selects sixteen quarter-hours, the equivalent of four courses each meeting four times a week, as his regular work.

Forty-eight quarter-hours are a student's regular work for the usual school year of nine months, or three quarters.

**Maximum and Minimum Hours of Credit**—A student registers usually for fifteen or sixteen hours each quarter. If the work is to count as resident work, the student must carry at least twelve quarter-hours.

A student who wishes to take a larger program than sixteen hours must take one of the standard mental tests. Applications for permission to take more than sixteen hours are made to the Committee on Student Programs. This committee will decline to grant permission to students to take more than eighteen hours, on the ground that it is better for the most brilliant student to do extended and careful work on eighteen hours, rather than to do twenty hours or more superficially.

It is a part of the duties of the Committee on Student Programs to learn at the close of the first half of each College quarter the quality of the work of each student carrying more than sixteen hours, and reduce the number of hours in each and every case regarding which any instructor reports the student's work as either weak or unsatisfactory.

**Minimum Residence Requirement**—The College does not grant any certificate or diploma for less than three full quarters of resident study, during which time the student must have earned at least forty-eight quarter-hours of credit. Students who have already taken the two-year diploma must spend in residence at least one quarter out of each year required for the three-year or four-year courses in the College. Extension group classes, conducted by members of the College faculty, are considered as resident work and may be counted as such to the extent of one quarter out of each six quarters required for the student's graduation.

**The Grading System**—A student who takes a four-hour course may earn a little more than four hours of credit by doing unusually good work. On the other hand, less than four hours will be granted for work of poorer quality than a reasonable expectation. The system is as follows:

A mark of AA for a course gives 20 per cent above the number of hours indicated as normal for the course.

A gives 10 per cent above normal.

B gives the normal credit.

C gives 10 per cent below normal.

D gives 20 per cent below normal.

F indicates failure.

For example:

4B on a student's permanent record means that a student has taken a four-hour course and made the normal credit in it.

4AA would indicate most excellent work in a four-hour course and would carry 4.8 hours credit.

4A gives 4.4 hours credit on a four-hour course.

4B gives 4 hours credit on a four-hour course.

4C gives 3.6 hours credit on a four-hour course.

4D gives 3.2 hours credit on a four-hour course.

These marks, both figure and letter, go on the student's permanent record for later reference to indicate the quality of the work done.

A student who enters school late in the quarter or is compelled to leave may receive partial credit for the course in such a way as to indicate both the quality and the amount of credit. For example: A student may complete with exceptional distinction but two-thirds of a three-hour course. The mark should be 2AA, and not 3C. Each mark would give 2.4 hours, but the first mark would indicate the quality of the work as well as the amount of credit.

**The School Year**—The school year is divided into four quarters of approximately twelve weeks each. These are:

1. **The Fall Quarter.**
2. **The Winter Quarter.**
3. **The Spring Quarter.**
4. **The Summer Quarter.**

This division of the year is especially well suited to a teachers college, for it gives teachers in active service an opportunity equal to any of securing a complete education while actually teaching.

**Shortening the College Course**—The quarter plan, the extension work, and the grading system make it possible for students who are physically strong enough to stay in school with only short vacations to complete a college course in a shorter time than that usually required in other colleges. Ninety-six quarter-hours constitute the usual two-year college course, and one hundred and ninety-two quarter-hours make up the

four-year course required for the A.B. degree. By carrying an average of seventeen hours a quarter and making an average grade of "A," a strong student can earn 18.7 hours each quarter. At this rate he could complete the course for the two-year life certificate in five quarters, from the middle of June of one year to the end of August of the next. Or such a student could complete the course for the A.B. degree in two and a half years—ten quarters. By doing some work in extension courses through the school year while teaching, it is possible for teachers in service to reduce the time of their courses also.

**Student Teaching**—Teachers who have had less than two years of college training take their student teaching in the Elementary School. Those who have had two years of college training may choose between the Elementary School and the High School according to their own personal needs and interests. Most students are required to do two quarters of practice teaching before being granted the diploma of graduation from the two-year course. Experienced public school teachers may be excused from one quarter of this practice teaching by presenting to the director of the Training School satisfactory evidence warranting such exemption.

Students who expect to teach in the Training Department, either the Elementary School or High School, during the summer session, are asked to correspond with the Director of the Training School before the opening of the quarter.

The application of every student for graduation from the College must be approved by the State Board of Examiners before the Life Certificate can be issued to the applicant.

### APPLICATIONS FOR GRADUATION

Application for graduation must be filed in the Dean's office at least 30 days before the diploma is to be granted.

### THE DAILY PROGRAM

#### Summer Quarter

- 7:00 to 7:50—First Class Period.
- 8:00 to 8:50—Second Class Period.
- 9:00 to 9:50—Third Class Period.
- 10:00 to 10:50—Fourth Class Period.
- 11:00 to 11:50—Fifth Class Period.
- 12:00 to 12:50—Sixth Class Period.

The afternoon is open for study in the Library and on the Campus and for Physical Education classes and informal recreation.

7:00 to 8:00 p. m. the General Lectures in the Gymnasium-Auditorium.

### TRAINING SCHOOLS

#### Elementary School

The Elementary Training School is an educational laboratory where useful educational problems are being worked out under the direction of skilled experts. New methods that save time, new schemes for better preparing the children for life, new curricula and courses of study are continually being considered by this school and are tried out, provided they are sound educationally. The aim is not to develop a school that is

entirely different from the elementary schools of the state, but to reveal conditions as they are and as they should be. The elementary training school strives to be the leader in the state in all that is new and modern. Effort is made to maintain such standards of excellence in the work that it may at all times be offered as a demonstration of good teaching under conditions as nearly normal as possible in all respects.

The Elementary Training School is a complete elementary school unit containing Kindergarten, First, Second, Third, Fourth, and Fifth grades. The Sixth, Seventh, and Eighth grades are organized on the departmental plan for the purpose of exploring and diagnosing earlier than usual the interests, attitudes, and abilities of pupils and at the same time to provide better for individual differences. This organization affords splendid opportunity for studying Junior High School problems. In the elementary training school the training teacher spends approximately one-half of her time teaching and the other half observing student teaching. The work of the student teacher consists of observation, supervision, and teaching under the direction of the training teacher.

Students are free to observe any of the training teachers in elementary or secondary training school on certain days set aside for observations.

Students desiring to do student teaching during the Summer Quarter should make an early application to the Director of the Training Schools, stating the grade or subject and training teachers they desire to teach with.

### Secondary School

The primary function of the Secondary Training School is to train that group of teachers who intend to enter the field of secondary education. The State High School of Industrial Arts, the Secondary Training School of Colorado State Teachers College, is being built upon the theory that the highest interests of the pupils and the highest interests of the secondary training school can be made to harmonize.

Student teachers are to spend two-fifths or more of their time in teaching under the training teacher and the remainder in observing the training teacher. Student teachers are to be assigned teaching in terms of problems or units. Each problem requires at least five consecutive recitations or as many more as the training teacher may think necessary. Student teaching in the secondary training school consists of teaching, observing, lesson plans, readings, individual conferences with the training teacher.

### School of Reviews of Colorado State Teachers College

To the elementary school teachers of Colorado the School of Reviews of the State High School of Industrial Arts offers an opportunity to strengthen one's grip on the subject matter of instruction. It does more than that. It affords a chance to observe good teaching and to receive sound instruction in teaching technique. The teachers thus receive a thorough review of the subject matter (with some amplification and expansion of the subject matter), and expert instruction in methods. Elementary teachers who are desirous of preparing for examinations or of improving their proficiency in their work will find in the School of Reviews a real opportunity.

Courses will be given in Geography, Grammar, Arithmetic, Primary Methods, American History, General Science, School Management and Law, Rural Life and Education, General Methods, Hygiene, and Reading Circle books. Rates of tuition are \$18.00 for the Summer Quarter. The School of Reviews opens Monday, June 19th, and closes Friday, August

25th. For further information address A. E. Brown, Principal State High School of Industrial Arts, Greeley, Colorado.

#### Rural Schools

It is the aim of the Department of Rural Education to awaken an interest and develop initiative and constructive thinking toward solving the problem met with in rural, village, and consolidated schools. Special attention will be given in the Summer Quarter to the problems of curricula, school organization, and administration.

Observation and Practice: Two two-teacher rural schools and the Ault Consolidated Schools are used for observation and practice. One of these will be in session the second half of the quarter. A limited number of practice teachers will be accepted. For those who may wish to observe, arrangements may be made for weekly trips. These will be so planned as to offer the minimum amount of conflict with other work. For those interested in consolidation and its problems a number of excursions are offered to the Ault schools.

Special students: Practice teaching for those not admitted to College classes may be credited in the Industrial High School. A special class in school management and Colorado school law will be offered for special students.

## The Graduate School

The Graduate School offers advanced instruction leading to the degree of Master of Arts in Education. The principal aim of graduate study is the development of power of independent work and the promotion of the spirit of research. The various departments of the College which offer graduate courses are willing to offer not only the courses regularly scheduled but others of research and advanced nature which the candidate wishes to pursue. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work.

Persons holding the degree of Bachelor of Arts, Philosophy, Science, or other four-year degree, from a reputable institution authorized by law to confer these degrees and approved by this Institution, may be admitted as graduate students in Colorado State Teachers College upon the presentation of official credentials, including transcript of records of undergraduate work.

The prospective student should obtain the blank "Application for Admission" and send it to the Committee on Advanced Standing for its approval before the opening of the quarter. Such blanks may be secured by addressing Colorado State Teachers College, Greeley, Colorado. Original credentials should be submitted with the application for admission.

### General Plan of Work for the Degree of Master of Arts in Education

**Residence**—Three quarters of work is required in residence at the College in advance requirements for the A. B. degree. This is three quarters of work beyond a four-year college course.

**Units of Work**—A year's work shall be interpreted as forty-eight quarter-hours. Thirty-eight hours credit will be given for graduate courses pursued and ten hours for the Master's thesis which is required. Sixteen hours credit a quarter during the regular school year is the maximum, inclusive of the research involved in the thesis requirement.

**Admission to Candidacy for Degree**—Admission to the Graduate School does not guarantee admission to candidacy for the M.A. degree. The student shall not be admitted to candidacy for the degree earlier than the close of his first quarter's work (completion of sixteen credit hours). Such admission shall be determined by a committee consisting of the President of the College, the Dean of the College, the Dean of the Graduate School, the head of the department in which the student is majoring, and two professors with whom the student has had work, these to be chosen by the Dean of the Graduate School. The merits of each student shall be the basis for the decision of this committee; personal fitness, the ability to use good English, both oral and written, and the ability to do superior work in the field of specialization are among the important things to be considered by the committee.

### The Nature of Graduate Work

**Specialization**—In keeping with the function of a teachers college, graduate work shall be confined largely to professional lines of work. It shall represent specialization and intensive work. As soon after enroll-



ment as possible, the graduate student shall focus attention upon some specific problem which shall serve as the center for the organization of his year's work, including courses to be taken and special investigations to be conducted. No graduate credit will be given for scattered and unrelated courses.

**Thesis**—Research work culminating in the writing of a thesis upon some vital problem of education shall be an integral part of the work for the Master's degree.

**Breadth and Range of Professional Outlook**—In addition to the intensive and specialized work which is required of candidates for the Master's degree, they are expected to know the fundamentals of professional education.

**Final Examination Upon the Whole Course**—There shall be a final examination, oral or written, upon the whole course. An oral examination of two hours duration is customary. This examination will cover the following ground: (a) The field of the thesis and special research, including topics closely related thereto; (b) The fields covered by the courses taken by the candidate; (c) The general fields of Psychology, Sociology, Biology, and Education.

#### General Information

1. All courses taken by graduate students must be approved in advance by the Dean of the Graduate School.

2. No graduate student may enroll for more than sixteen hours of work in any quarter. This regulation is essential to the maintenance of the standard of intensive work for the Master's degree. In determining the maximum amount of work permitted, research upon the thesis topic must be included within the limit stated. To this end, the student doing research work upon his thesis topic must enroll for the same.

3. Twelve hours shall be the minimum number of hours considered as a term in residence. If for any reason a student cannot carry more than twelve hours a quarter, the remaining hours may be taken in extension when approved in advance by the Dean of the Graduate School.

4. In order that the standard of intensive and specialized work for the Master's degree may be maintained, no graduate credit will be given for elementary courses, for scattered and unrelated courses, for public platform lectures or public platform lecture courses, or for courses in which the element of routine is large as compared with the theoretical and professional aspects.

5. Excess A.B. work may be applied toward the M.A. degree only when arrangement is made in advance with the Dean of the Graduate School so that he may see that the work is of M. A. standard, and that it is in line with the specialization necessary for the M. A. degree. Such credit will be granted only to students in their fourth year who do not need all their time for the completion of their undergraduate work.

6. The courses which may be taken for graduate credit must be of an advanced character, requiring intensive study and specialization. Certain approved undergraduate courses may be pursued for graduate credit; but, when so taken, the character of the work done and the amount of ground to be covered must be judged by a higher standard than that which applies to the regular undergraduate student. The standard of intensive work set for the graduate student must be maintained even if

special additional assignments have to be made to the graduate student who works side by side with the undergraduate.

7. Satisfactory teaching experience shall be regarded as a prerequisite to graduation with the Master's degree. Student teaching in some department of the College or its training schools may, under certain conditions, be included in the graduate work of candidates for the Master of Arts degree. Routine teaching will not be recognized for graduate credit. When graduate credit is given for student teaching, this work must be of an advanced character, so organized, controlled, and supervised as to insure some decided growth of the teacher in the scholarship of the subject or professional insight into its value and problems.

8. Sixteen hours of credit toward the M.A. degree shall be the maximum amount allowed to be earned in a regular school year by any one who is employed on full time, except upon the recommendation of the Dean of the Graduate School.

9. Before the M.A. degree may be conferred a student must have had at least seventy-two hours of college work in his major and not less than thirty-two hours of professional work in Education and related fields which is acceptable in the various states as requirements for certification.

10. All work for the M.A. degree shall be done with distinction; work barely passed (marks of D and C under the present marking system) shall not be considered worthy of such an advanced degree.

11. The thesis subject of the graduate student must be approved in advance by the Dean of the Graduate School and by the head of the department concerned. Before the degree is conferred the thesis, as a whole, and in detail, must be approved by the head of the department or the instructor under whose direction the thesis work has been done and also by the Dean of the Graduate School. Two typewritten copies of the thesis must be placed on file with the Dean of the Graduate School, both of which he shall place in the library for permanent reference.

12. Before the candidate for the Master of Arts degree is admitted to final examination the thesis requirements must be met in full, and the thesis must be in such a state of readiness at least three weeks previous to final examination, that only minor reconstructions need to be made, which will not delay its being put in final typewritten form for filing before the end of the quarter in which graduation falls.

13. The final examination will be presided over by the Dean of the Graduate School and conducted by the head of the department in which the candidate has done the main part of his work. Other members of the faculty may be given an opportunity to participate in the examination. An official visitor, or official visitors, from outside the department in which the candidate has specialized shall be appointed to attend the examination.

#### Directions as to Form of the Thesis

Students submitting theses should present them in typewritten form, upon paper of good quality, of customary size ( $8\frac{1}{2} \times 11$ ), leaving a margin at the left adequate for binding—fifteen points by the typewriter, twenty if the manuscript is thick.

A title page should be prepared, containing in neat lettering at the top, the name of the institution, THE STATE TEACHERS COLLEGE OF COLORADO; below this at some distance the title of the thesis; about

the middle of the page the statement: A THESIS SUBMITTED IN CANDIDACY FOR THE DEGREE OF MASTER OF ARTS IN EDUCATION; at a lower level of the page the author's name, and at the bottom the address, and the year.

All theses should contain a brief analysis or table of contents at the beginning; should give footnote references to literature quoted by author, title of book or article, and exact page; and should contain at the end a bibliography of the literature of the subject. In giving bibliographical material, the customary form of publishing houses should be used, which is quite uniformly that of the author first, followed by title, publisher and copyright date, and in case of magazine references, title of magazine, volume or date and page.

#### Fees for Graduate Courses

Fees for graduate students in the Summer Quarter and in the regular school year will be on the same basis as fees for all others.

#### Graduate Scholarship

For the encouragement of research and scholarship several scholarships are available for graduate students for the school year 1922-23. These range from \$100 to \$600 in value. Except in a few instances where a certain amount of time is required in return for the stipend offered, the student will be expected to devote all of his time to graduate work. Applications for scholarships should be filed with the Dean of the Graduate School not later than May 15th.

#### SPECIAL COURSES

For the first time two special lecture courses will be organized this year to give students a fuller opportunity to benefit by the lectures given by the distinguished visiting educators. These will be conducted in a manner similar to that which governs Ed. 27. Daily attendance will be required with only incidental notes, readings, and recitations. One hour of credit will be given to each course for a half quarter, or two hours for the full quarter.

The courses are:

Ed. 140.—Problems in General Education.

Sociology 135.—Political and Social Problems.

The first will meet at eleven o'clock and the second at twelve. These courses are placed at the time on the program when the fewest required subjects are given so as to make it possible for a large number of students to enroll in each course. The same lecturers will appear in each series. These are: Miss Elizabeth Cleveland, Dr. Emanuel Sternheim, Mrs. Cora Wilson Stewart, Dr. Lee L. Driver, Dr. Edward A. Steiner, Dr. Henry H. Goddard, Dr. Roscoe G. Stott, and Dr. Edward T. Devine.

## The Courses of Study

Throughout this catalog, courses numbered 1 to 99 are primarily first and second year subjects; 100 to 199 are third and fourth year. Those numbered 200 and above are Graduate School.

Colorado State Teachers College is a technical school like a medical or engineering school. Its business is to train teachers for all types of schools maintained by the state. The College has abandoned the idea that there is a possibility of training teachers for the various kinds of teaching through the medium of a single course of study or a scattered elective course.

To meet the requirements for teachers of all kinds of schools the College provides the following courses of study, and asks each student entering October 1, 1918, or after, to select a course definitely and to consult as a permanent adviser the head of the department directing that course of study. Students who registered previous to that date may continue with the old course of study and complete that course if they can do so within four years from the time the course was begun by the student in residence; but all who can readily make the adjustment are advised to select one of the new courses and complete their work under the new plan.

**Length of Course**—Each course is planned to occupy twelve quarters (a quarter is approximately twelve weeks in length). Upon the completion of the course the degree of Bachelor of Arts in Education will be granted. The diploma is a Colorado life certificate. Each course is so arranged that it may be divided in the middle. The first part of each course may be completed in six quarters. The student who chooses to be graduated at the end of the two-year course receives the Colorado life certificate, but no degree. Students who come to the College with advanced standing, and those who gain time by doing work of exceptional quality, may shorten the course somewhat.

Two-year and four-year courses of study for teachers are arranged for in the following departments:

|  |   |
|--|---|
| Agriculture (2 years only).                        | Fine and Applied Arts.                    |
| Biology.   | Geology, Physiography and Geo-<br>graphy. |
| Chemistry.   | History and Political Science.            |
| Commercial Arts.                                   | Home Economics.                           |
| Education.   | Hygiene and Physical Education.           |
| Superintendents, H. S. Principals<br>and Teachers. | Industrial Arts.                          |
| Kindergarten.                                      | Literature and English.                   |
| Primary.   | Mathematics.                              |
| Intermediate.                                      | Music.                                    |
| Junior High School.                                | Physics.                                  |
| County Schools.                                    | Romance Languages and Latin.              |
| Educational Psychology.                            | Sociology.                                |

The complete courses of study are shown in the Year-Book.

**The Professional Core**—Each of the courses differs somewhat from the others in the subjects required by the department, but each course contains the following subjects:

**First Year:** Biology 2, English 4 (unless excused for proficiency), Hygiene 7, Ethics 1 (for women), Sociology 3, Education 1, Education 8, and a Physical exercise course each quarter.

**Second Year:** Psychology 2a and 2b, Education 2a and 2b (practice teaching), Education 10, and a Physical exercise course each quarter.

**Summary**—Core subjects 42 hours. Departmental requirements 30 hours. Free electives 24 hours. Total 96 hours.

**Third and Fourth Years:** (For majors in elementary school work, supervision, etc.) Education 103 (practice teaching), Education 111, Hygiene 8, Psychology 104 and 108a, and Sociology 105.

**Third and Fourth Years:** (For majors expecting to become high school teachers, supervisors, and principals.) Education 101, 102 (practice teaching), 116 and 111, Hygiene 8, Psychology 105 and 108 b and Sociology 105.

**Summary**—Core subjects 23 or 27 hours. Departmental requirements 49 or 45 hours. Free electives 24 hours. Total 96 hours.

**Summary for the Four Years**—Core subjects 65 or 69 hours. Departmental requirements 79 or 75 hours. Free electives 48 hours.

**Use of Free Electives**—The student is urged to use his free electives to broaden his education so as to acquaint himself somewhat with one or two fields outside his major interest. He is at liberty, however, to use a part or even all of his free electives in his major department.

## REQUIREMENTS FOR GRADUATION

**The Two-year Course**—A student must do full work in residence during at least three quarters before being granted a certificate of graduation from the two-year course. Thus, at least forty-eight of his ninety-six hours may be granted on advanced standing or for extension courses. Applications for graduation must be filed with the registrar at least 30 days before the close of the quarter in which the diploma is to be granted.

**Group Courses**—Each student is required to select one of the group courses given in detail under the departments of the College. If a student has taken courses elsewhere similar to those specified in his group course, he may, with the consent of the head of the department in which he is taking his course, be allowed to substitute the work he has already had for Colorado State Teachers College work. The student may not, however, be excused from the "core required subjects" except by the heads of the departments giving those courses.

**Diploma**—The diploma granted upon the completion of the two-year course is a life certificate to teach in any kind of school in Colorado, and is honored in many other states.

**The Three-year Course**—A student who comes to the College with two years of advanced standing from another college or normal school may secure the Colorado Life Certificate by doing three quarters of

residence work and meeting the requirements of the group course in which he or she is specializing.

**The Four-year Course**—At least three quarters of residence study are required for the A.B. degree. For graduates of the two-year course in this College, two quarters of additional residence study are required.

**The Fifth-year Course**—See the Graduate School, pages 16 to 19.

**Diploma and Degree**—At the end of the fourth year of study, and upon completion of 192 quarter hours of credit, the degree of Bachelor of Arts (A.B.) in Education will be conferred, and a diploma, which is a life license to teach in the public schools of Colorado, will be granted to all students who have completed the requirements of the course they are pursuing.

**Time Limits for Completing a Course**—A student is allowed four years after beginning resident work on a two-year course in which to complete that course, and another four years to complete the work of the third and fourth years after having enrolled in the third year of one of the group courses. This extension of time is made to take care of those who must teach between the years of resident work. Thus, a student selecting the General Course in September, 1916, would have until the end of the summer quarter of 1920 to complete the two-year course thus selected. Failing to complete the course within that time he or she would be required to complete one of the courses of study in effect in the Year Book current at the time of his or her application for graduation. If such a student completed the two-year course on or before September, 1920, then he or she would be required to elect one of the senior college courses of the year 1920-21 and complete all requirements of the course thus selected for the A. B. degree. This course would have to be completed within another four years (that is, September, 1924).

**Transfer of Credits from Other Colleges**—Since Colorado State Teachers College is a college for training teachers, its courses of study are technical courses. Those who come from universities or liberal arts colleges with one, two or three years of advanced credits may find that some of these will not apply upon the course of study they may select here. Colorado State Teachers College accepts all credits from standard colleges at face value to apply as electives in its course of study, but does not guarantee that a student having had a year's work in another school will be able to complete a two-year course here in three more quarters. Many students are able to apply their previous work upon the courses selected here without loss of time, but often students find it necessary to remain in Colorado State Teachers College somewhat longer than they had expected because of the number of required technical courses in a given curriculum.

**Regulation Concerning Overlapping of A.B. and A.M. Work**—No student will be granted the A. B. degree who has not completed 48 or more hours (three full quarters) in residence in the College. Twelve or more hours done in the group courses conducted in Denver, Pueblo and other neighboring cities by the resident faculty of the College may be counted as one (but only one) of the resident quarters. Three additional quarters in residence are required for the A. M. degree, with the same provision concerning outside group courses.

To prevent overlapping of time and consequent misunderstanding the Advanced Standing Committee grants advanced standing never in

excess of 144 hours to applicants who fall short of admission to the graduate school. Students transferring to Colorado State Teachers College when they are within one or two quarters of the A.B. degree must expect to lose some time by making the transfer.

## AGRICULTURE

The courses in Agriculture given in the Summer Quarter are designed to prepare teachers to teach the subject in rural, village, and town high schools. Subject matter is emphasized, but methods and principles of teaching are adequately treated along with subject matter. Field and laboratory practice is given as much as possible.

### 4. Farm Crops—Four hours.

An introductory course dealing with the most important farm crops with special reference to Colorado conditions.

### 5. Soil Physics and Soil Fertility—Four hours.

A study of the soil with reference to its formation, fertility, and relation to plant growth.

#### 1a. Animal Husbandry—Four hours.

A study of breeds of farm animals with special reference to market grades and classes and how to meet the market demands.

#### 2a. The Teaching of Agriculture—Four hours.

This will be a study of the "What and How," to teach of the subject in the different types of school in which the subject is being taught. Much time will be spent in outlining courses and selecting subject matter for the student's special type of school in which he expects to teach.

## BIOLOGICAL SCIENCES

The department of Biological Sciences occupies office, lecture room and laboratory on the third floor of the main building. It is equipped with microscopes, lantern slide collection, and type specimens for the work of zoology and botany. A museum for the use of nature work is located on the first floor of the Library Building.

### Biology

2. **Bionomics**—Required in the first or second years. Three hours. Four days a week.

A study of some of the fundamental facts and laws of biology that have a bearing on education. It forms a basis for the intelligent study of other educational subjects. It considers: Mendel's Law, heredity, eugenics, evolution and civic biology.

### Zoology

5. **Bird Study**—Four hours. Four days a week.

A study of the Colorado birds. Consists of work in the field, combined with the laboratory and museum. The course is not a scientific study of birds, but rather, as the name implies, a study of their histories, habits, habitat, and economic importance. Morning and Saturday forenoon field trips will be planned as needed. Bring outing clothes, outing shoes, and field glasses if you have them.

### Botany

101. **Advanced Systematic Botany**—Four hours. Four days a week.

A study of the morphological features upon which flowering plant classification is based. Wild flora will be extensively examined and classified. Numerous field trips.

**Biotics.****102. Heredity and Eugenics.** Three hours. Three days a week.

This course takes up a study of the laws of and physical mechanism of heredity. Following this some attention is given to their application to the problems of plant and animal breeding. Most stress, however, is placed on the general biological and educational import of these laws and their application to human society.

**Nature Study****1. Nature Study**—Four hours. Four days a week. Three hours extra out of door work.

Aims and principles of nature study, teaching nature study in the grades. This work is from both the animal and plant field and includes a study of such materials as teachers may use in the public schools. Much of the work is carried on out of doors, and for this reason students should bring outing suits and shoes.

**CHEMISTRY**

The increasing importance of the applications of chemistry to the industries since the European War has led to intensified interest in this subject. More comprehensive and practical courses in Chemistry are being given in the High Schools than heretofore, and more Chemistry is being given in connection with the courses in Home Economics since the realization of the magnitude of the world's food problems. Likewise, teachers of Chemistry, and teachers of Home Economics with some knowledge of Chemistry, are being demanded. It is the duty of every teacher to know something of the source, preparation, and properties of foods, dyes, poisons, etc.

In the program offered by the Chemistry Department, the teacher of Chemistry will find an opportunity to augment his or her knowledge of this subject. The prospective student of Chemistry will find the program suited to his or her needs; and Home Economics students of the regular school year will be enabled to pursue one or more of the required chemistry courses.

**1. General Chemistry**—Three hours. Fee \$3.00.

Two lectures and one laboratory period on the theory of chemistry and non-metals.

**2\*. General Chemistry**—Three hours. Fee, \$3.00.

Two lectures and one laboratory period. A continuation of Course 1.

**3\*. General Chemistry**—Three hours. Fee, \$3.00.

Two lectures and one laboratory period on the chemistry of metals. A continuation of Course 2.

**4. General Chemistry**—Four hours. Fee, \$3.00.

This course covers the same text book work as Course 1, but requires more laboratory work. Two lectures and two laboratory periods.

**5\*. General Chemistry**—Four hours. Fee, \$3.00.

A more extensive course than Course 2. Two lectures and two laboratory periods. Continuation of Course 4.

**6\*. General Chemistry**—Four hours. Fee, \$3.00.

A continuation of Course 5. Two lectures and two laboratory periods. Courses 4, 5, and 6 are required of all science students (excepting those specializing in biology, who may elect 1, 2, and 3 instead; and of Home Economics students taking the four-year course).

\*2 and 5 or 3 and 6 to be offered, depending on which is in greatest demand.



**7. Qualitative Analysis**—Four hours. Fee, \$3.00.

A laboratory and consultation course on the separation and identification of the common elements. Eight hours attendance. Prerequisite Courses 1, 2, and 3 or 4, 5, and 6.

**108. Organic Chemistry**—Three hours. Fee, \$3.00.

Two lectures and one laboratory period. A study of the hydrocarbons and their derivatives.

**109\*. Organic Chemistry**—Three hours. Fee, \$3.00.

Two lectures and one laboratory period. A continuation of course 108. A study of the carbohydrates, proteins and benzene derivatives.

Prerequisites for 108 and 109 are 1, 2, 3 or 4, 5, 6. Recommended to students specializing in biology or physics.

**110. Organic Chemistry**—Four hours. Fee, \$3.00.

Two lectures and two laboratory periods. Same text book work as Course 108, but more extensive laboratory work.

**111\*. Organic Chemistry**—Four hours. Fee, \$3.00.

Two lectures and two laboratory periods. A continuation of Course 110. Prerequisites for Courses 110 and 111 are Courses 4, 5, 6. Required of students specializing in chemistry and of four-year Home Economics students.

**112\*. Food Chemistry**—Three hours. Fee, \$3.00.

Two lectures and one laboratory period. A study of foods, detection of adulterants, metabolism and dietary lists. Recommended as a general cultural course. Prerequisite for 112 is 1, 2, 108 and 109.

**113\*. Food Chemistry**—Four hours. Fee, \$3.00.

A more comprehensive course than 112. Required of students specializing in chemistry and of four-year Home Economics students. Prerequisites 4, 5, 6, 110, 111.

**114 and 114B. Quantitative Analysis**—Four or eight hours. Fee, \$3.00.

Gravimetric and volumetric analysis. A laboratory and consultation course. Eight or sixteen hours attendance. Prerequisites, Courses 4, 5, 6, 7.

**117. The Teaching of Chemistry**—Three hours. Fee, \$3.00.

Discussion and reports on the teaching of high school chemistry, and practice in setting up demonstration apparatus. Required of chemistry students specializing to teach the subject.

**COMMERCIAL ARTS**

Courses in the Commercial Department divide themselves into two groups: 1. Accounting. 2. Stenographic. Students who expect to major in the department and secure a two-year certificate should elect courses accordingly. The two-year stenographic course should be followed as outlined in the year book, with possibly some electives from the accounting course, or vice versa. Mixing courses from the two groups with no attention to the requirements in the year book might make it necessary for the student to remain in school longer in order to satisfy either of the requirements of the two-year certificate. A combination of the two two-year courses referred to above constitutes the requirement for the A.B. degree. Either of them may be taken in the first two years.

**1. Beginning Shorthand**—Required of Majors in Commercial Arts. Four hours. Full quarter.

A study of the first ten lessons in Gregg Shorthand with supplementary exercises.

**2\*. Intermediate Shorthand**—Required of Majors in Commercial Arts. Four hours. Full quarter.

A study of the last ten lessons of Gregg Shorthand with supplementary exercises. This course completes the study of the principles of shorthand.

\*To be offered in case of sufficient demand.

**3. Beginning Shorthand Dictation**—Required of Majors in Commercial Arts. Four hours. First half or full quarter.

A brief review of word signs, phrasing, and the vocabulary of the Gregg Manual, after which dictation will be given of both familiar and unfamiliar matter. Enough work will be given in this course to make one proficient in taking accurately ordinary dictated correspondence.

**11. Beginning Typewriting**—Required of Majors in Commercial Arts. Four hours. First half or full quarter.

Beginning work in touch typewriting, covering position at machine, memorizing of keyboard, proper touch and correct fingering, with instruction in care of machine.

**12. Intermediate Typewriting**—Required of Majors in Commercial Arts. Four hours. First half or full quarter.

Study of approved forms and circular letters, addressing envelopes, manifold and tabulating.

**13. Advanced Typewriting**—Required of Majors in Commercial Arts. Three hours. First half or full quarter.

**17. Office Practice**—Required of Majors in Commercial Arts. Four hours. Either half or full quarter.

This course consists of intensive practice in a "Model Office." Students are required to do five hours of continuous work daily, five days per week, taking dictation and transcribing. This course also includes the operation and use of modern office appliances such as the mimeograph, mimeoscope, dictaphone, adding machines, filing systems, etc. This work is very carefully systematized and consists of actual correspondence. This comes from the president's office, the deans, and heads of departments. Outside work from churches and charitable institutions is solicited also.

**40. Business English**—Four hours. Full quarter.

The elementary principles involved in writing correct English. The sentence, the paragraph, grammatical correctness, effectiveness, clearness, punctuation, etc., applied in commercial correspondence.

**50. Elementary Accounting**—Required of Commercial Majors. Four hours. Full quarter.

A general introduction, giving the historic background of the subject and a brief statement of the profession. The foundation of double entry book-keeping. Assets, liabilities, proprietorship, the balance sheet, income, expenses, profit and loss statement. The entire class period is given to discussion and an average of one hour daily is required for laboratory work.

**51\*. Intermediate Accounting**—Required of Commercial Majors. Four hours. First half or full quarter.

Partnerships, introduction to corporation accounting, and many miscellaneous accounting and business methods. Two complete sets of books are written up in this course, one illustrating a partnership and another some features of corporation accounting.

**53. Business Mathematics**—Required of Commercial Majors. Four hours. First half or full quarter.

A thorough treatment of arithmetic from the modern commercial point of view.

**56. Beginning Penmanship and Methods**—Required of Majors in Commercial Arts. Two hours. First half or full quarter.

Drill in rapid, arm-movement, business writing. The Palmer system will be used. This course also includes methods of teaching.

**54. Commercial Law**—Required of commercial majors. Four hours. First half or full quarter.

A treatment of the general principles of common law as applied to business, together with a study of the Colorado statutes and decisions bearing on commercial interests. Contracts will be treated the first half and negotiable instruments the second half.

**150. Bank Accounting**—Required of majors in Commercial Arts. Four hours.

This includes a study of state and national banking laws, loans, discounts, commercial paper, methods and principles of banking and saving accounts. A set of books illustrating several days of business will be written, including use of the Burroughs Bookkeeping Machine.

**211. Business Administration**—Four hours. Full quarter.

The principles of industrial management and the organization of the modern office. Various types of organization, the labor force, payment of the worker, records of raw material and unfinished goods, etc.

**220. Seminar**—Full quarter.

An opportunity will be given for research work on problems in the commercial field. Problems to be selected in conference with the head of the department. This course is planned as a conference course.

## EDUCATION

The purpose of the course offered by the Department of Education is to give to the student a broad acquaintance with the most essential fields of educational activity. Although the work of the department must necessarily deal largely with the fundamental theories underlying the educative process, every course is so planned that the student should be able to make the application of these theories to actual practice in the school room.

**1. Principles of Teaching**—Three hours.

This course will consist of readings, discussions, and observations of classroom work in the elementary training school. It will deal with such topics as, types of classroom procedure; standards for judging both the subject matter and classroom instruction; development and use of lesson plans; socialized recitations and the project method; the ideas of enrichment, development and control of experiences and the methods appropriate to a realization of these ideas in the various grades of the elementary school from the kindergarten to the eighth grade.

**2. Student Teaching in Elementary Training School**—Four hours. Full quarter.

This will include observations, conferences, supervision, and teaching on the part of student teachers.

**3. Primary Methods**—Either half or full quarter. Two or four hours.

This course is based on the needs of the child between the ages of seven and eight years. This course leads up to the selection of subject-matter which functions in the child's life. To this end a brief comparison of courses of study in some of our larger city schools is made. The latest and most scientific articles on primary methods are read and discussed. Many devices for teaching beginning reading, phonics, rhythm, spelling, songs, as well as methods for dramatization of stories, multiplication table, and practice in blackboard illustrating are given.

**4. Intermediate Grade Methods**—Either half or full quarter. Two or four hours.

The course is based on the needs of the child between the ages of ten and twelve. It will consist of (1) a review of the most significant things in child study common to children of this period; (2) a comparison of courses of study for these grades; (3) the building of a course of study; (4) methods of presenting the material of the curriculum of the intermediate grades.

**7. Practical Projects in Primary Grades**—First half. Two hours.

This course will deal with practical problems and projects in the work of the primary grades.

**8. Educational Values**—Three hours. Full quarter. Required of all students, first year.

The purpose of this course is to give the student a critical attitude toward the material presented in the various school subjects. Each subject of the elementary school will be considered as to the reason it has for a place in the curriculum today; how it has been justified in the past; and how it may be presented now so as to be more fully justified. Recent magazine articles and text-books will be studied with a view to developing the attitude of looking for the material which is of greatest educational value of the child.

**10. The Elementary School Curriculum**—Three hours. Full quarter. Required of all students, second year.

This course will deal with the aims, materials, and methods of the elementary school. The course should make the student intelligently critical of programs of study in the elementary school.

**13. The Teaching of Spelling**—Two hours. Second half.

The purpose of this course is to present the most reliable and certain facts in teaching of spelling and to present them in their relation in the practical problems which the teacher has to face every day in the class room. The following problems will be discussed: The selection and classification of words; testing for word difficulty; a psychological basis of spelling; the presentation of words; the prevention and treatment of errors; the measurement of spelling ability; factors affecting spelling ability.

**15. Vocational Guidance**—Two hours. Second half quarter.

This course will deal with the place of vocational guidance in public school systems. Among other subjects it will treat of the need and value of the study of occupations, vocational analysis, opportunities for vocational education, opportunities for employment and the work of placement and vocational bureaus and various guidance agencies.

**16a. Girls' Camp Fire Work**—One hour. Each half quarter.

This course is intended for those who wish to become Camp Fire Guardians. Groups will be organized into regular camp fires and do the work usually required of girls in such groups.

**16b. Advanced Camp Fire Training**—Each half quarter. Open to students who have had the elementary course in Camp Fire.

**17. Boy Scout Work**—One hour. Each half quarter.

This course is intended for those who wish to become Boy Scout Masters.

**21. County School Problems**—Either half or full quarter. Two or Four hours.

This course considers the problem of the county school, the teacher, the child, the school board, and the community.

**22. Student Teaching in County Demonstration Schools**—Two hours. Second half quarter.

A two-teacher rural school will be available for observation and teaching. The work is intended to meet the needs of those who expect to work in rural schools.

**26a. The County School Curriculum and the Community**—Full quarter. Three hours.

This course will present the problems of the teacher who desires to instruct country children in terms of their environment. The Colorado courses of study and methods and materials for such instruction will be outlined and discussed. Special attention will be given to ways and means for vitalizing the subjects in the course of study.

**27. The General Lectures**—Required of all undergraduate students.

**51. Literature, Songs and Games for Kindergarten and Primary Children.** Either half or full quarter. Two or four hours.

A study and classification of the different types of stories, songs, and games according to their fitness for various ages and purposes.

**52. The Kindergarten Curriculum**—Four hours. Full quarter.

A study of the educational possibilities of the natural activities of childhood.

**101. Principles of High School Teaching—Full quarter. Four hours.**

This course is designed to develop those principles of teaching and features of methodology which are particularly applicable to high school teaching. A text-book is used as a basis, but this is supplemented by individual reports, class discussions, and special papers. There will also be directed observation of high school teaching. Some of the topics to be considered are: Characteristics of adolescence; types of disciplinary control; economical classroom management; types of instruction; lesson planning and supervised study.

**102. Advanced Student Teaching in Elementary Training School—Full quarter. Four hours.****103. Student Teaching in the Secondary Training School—Full quarter. Four hours.**

This course will include conferences, observations, supervision and teaching under the direction of the training teacher.

**104. The Project Method of Teaching—Either half or full quarter. Two or four hours.**

The purpose of this course is to study and define the project and project method from a critical point of view and to discuss the reorganization of the curriculum on the project basis. A study and criticism of current definitions will be made, also the historical development.

**106. Methods of Improving Instruction in the Primary Grades—Either half or full quarter. Two or four hours.**

An advanced course, dealing with methods of improving instruction in primary grades. Emphasis is placed upon the following subjects: silent reading, literature, spelling, language, and arithmetic.

**108. Educational Supervision—Either half or full quarter. Two or four hours.**

This course will deal with problems of supervision in school systems. It will be of especial value to those who expect to become superintendents or supervisors.

**109. High School Supervision—Two hours. First half quarter.**

Persons who have shown an unusually high degree of efficiency in high school teaching may be allowed to assist in the supervision of the high school work. This training will afford them a more comprehensive view of the work and practice in the supervision of the training of younger teachers. This experience is intended primarily for those who are preparing themselves to be principals and superintendents or to fill other positions of responsibility in public school work.

**110. Supervised Study—Two hours. First half quarter.**

This supervised study will deal with the entire field of supervised study. Model supervised study classes will be available for observation.

**111. Philosophy of Education—Four hours. Full quarter. Required fourth year.**

This course is designed to set forth the underlying principles of educational theory. It treats of the theory of instruction and training with the child as the concrete basis; the aim and meaning of education; educational values; the theory of management and control; and the technic of practice. Some of these are discussed very briefly as they form the basis of other courses. Practical applications of theory are constantly made.

**113. Organization and Administration of the Junior High School—Either half or full quarter. Two or four hours.**

In this course the following points will be considered: Organization: standards for judging junior high schools; historical development; the program of studies; the daily schedule of classes; courses of study for the various subjects; the qualification of teachers, etc. After many representative junior high schools of the United States have been considered from the above mentioned standpoints, each student will arrange a program of studies, and a course in one subject for a junior high school in some designated community.

**114. Primary Supervision—First half. Two hours.**

This course is intended to meet the needs of kindergarten and primary supervisors.

**116. The High School Curriculum**—Either half or full quarter. Two or four hours. Required fourth year.

In this course a practical study of the curriculum of various small high schools and junior high schools of this and other states will be made. Educational values and the needs of the community will be considered in the course. A detailed course of study for both the junior and the senior high school will be outlined by each student.

**130. County School Supervision**—Three hours. Full quarter.

A brief study of the rural educational systems of this and other countries. After the problem is considered in its historical and sociological aspects resulting from a long national evolution, the present as well as the best type of rural school will be studied as a factor in preparing for an efficient citizenship. The fundamental needs in rural education, the recent rural life movement, the redirection of the school, its legitimate functions and revitalizing agencies will be correlated with existing conditions in Colorado and the West and with the social and historical development of the country.

**131. Visual Education**—One hour.

A conference course in visual education is open to superintendents, principals, and teachers who are planning to make a wider use of pictures in teaching. Among the topics considered will be the place of picture collections, the use of the stereoscope, lantern, and motion picture machine. Instruction will be given in the installation, care and operation of projection apparatus; the making of lantern slides and motion pictures. Lists of films and lantern slides will be furnished. The school has a complete photographic laboratory, two motion picture machines, and a number of lanterns and projectoscopes. Weekly conferences will be held, and one hour of credit is offered to those regularly enrolled.

**142. Educational Administration**—Either half or full quarter. Two or four hours.

This course is designated primarily for students preparing themselves as principals, superintendents and supervisors. After making a survey of the field of educational administration, the student may select the line of administration in which he is most interested for study and research.

**143a. The Federal Government in Education**—Two hours. First half quarter.

This course treats of the efforts of the Federal Government to aid the states in education and discusses the place of the Federal Government in education.

**143b. State Systems of Education in their Relations to Teachers**—Either half or full quarter. Two or four hours. Four days a week.

This course will present the present practices of the state systems of the United States in the following relations to their teaching populations: Boards of Control and State Executive Officers, selection and preparation of teachers, certification, selection of supervisory officers and nomination and appointment of teachers, tenure, salaries, supervision and appraisal, training in service, and retirement systems. (The basis of this course is the study made by Mr. Boardman for the Carnegie Foundation for the Advancement of Teaching. Copies of this Bulletin will be supplied gratis by the foundation. It is desirable that students bring copies of recent school laws and reports.)

**152. Principles Underlying the Education of Children in the Kindergarten and Primary grades**—First half. Two hours.

This course is intended to be of help to kindergarten and primary teachers and supervisors.

**223. Research in Education**—Hours dependent upon amount of work done. Open only to students who are present the full quarter.

This course is intended for advanced students capable of doing research in educational problems. Each student may choose the problem of greatest interest to him, provided sufficient opportunity is at hand for original investigation. The results of such research are to be embodied in a thesis. Conference course at hours convenient to instructor and student.

**229a. Current Educational Thought**—Two hours. First half quarter.

This course will consist of reviews and discussion of recent books in the various fields of education. Prospective members of the class will aid greatly in the work if they will bring 1920 to 1921 books with them for use in this course.

**229b. Current Educational Thought**—Two hours. Second half quarter.

This course will consist of reviews and discussions of recent magazine articles in the various fields of education. One of the chief purposes of the course is to acquaint teachers with the best educational magazines.

**246. Seminar for Superintendents and Principals**—One hour. Each half quarter.

This course is intended to be a clearing house where superintendents and principals may discuss their special problems with a view to a proper solution of them. It will be primarily a discussion group.

### EDUCATIONAL PSYCHOLOGY

The courses of this department have been arranged with the general purpose of making the student familiar with the important contributions which psychology has made to such phases of education as school organization and administration, the aims of education, and the best means and methods of realizing these aims. The whole public school system is viewed from the standpoint of the nature and needs of the child. An attempt is made to point out what the schools should be in order to preserve the child's physical and mental health, respect his native capacities and tendencies, secure his normal development, utilize his most natural modes of learning, and promote and check up the efficiency of his responses. More specific statements of the purposes of the department are given below in the descriptions of the courses.

The department offers two curricula, the one in Psychology and the other in Special Schools and Classes. The first prepares the student to teach psychology in normal schools and high schools and to fill such positions in clinical psychology and tests and measurements as are developing in connection with public school systems. The second prepares the student to take charge of special schools and classes, especially such as are designed for backward and feeble-minded children. Students who elect either of these curricula are advised to take at least six courses of the curriculum of some other department.

#### Course of Study

##### Four Years for Majors in Psychology.

In addition to free electives, and the core subjects listed on page 36, this department requires:

**First Year:** Library Science 1, and Psychology 1 and 110.

**Second Year:** Psychology 3.

**Third Year:** Psychology 104, 105, 106, 107 and 109.

**Fourth Year:** Psychology 108a, 108b, 111, 212 and 109.

Students who wish to major in the curriculum for teachers of special schools and classes will take Psychology 112, a course in eugenics and a course in construction work in place of psychology 105, 108b and 212. They will also be held for some practice teaching in special classes.

Students who wish to specialize in the department, but find it impossible to remain at school four years, will be permitted to elect advanced courses.

**1. Child Hygiene**—First year. Three hours. Full quarter.

The main purposes of this course are: (a) to point out how the child's school progress and mental and physical development are arrested, and how his

health and behavior are impaired by the physical defects which are very prevalent among school children: (b) to discuss the causes of defects, the methods of preventing and detecting them, and the measures which are required for an effective amelioration or cure.

The following topics will be treated: educational and economic values of health; the need of health conservation; deformities and faulty postures; air requirements; malnutrition and school feeding; hygiene of the mouth; enlarged adenoids and diseased tonsils; defective hearing; defective vision.

## 2. Educational Psychology—

a. Three hours credit, four hours recitation. Required of all students. Second year. Full quarter.

The purposes of this course are: (a) to make the student familiar with the child's capacities, tendencies and native responses and to show him how they, and the nature and order of their development, are involved in the process of educating the child; (b) to discuss such conditions of the school room and school activities as will avoid fatigue and promote work.

The following topics will be treated: The child's native equipment; mental work and fatigue.

b. Three hours credit, four hours recitation. Required of all students. Second year. Full quarter.

Purposes of the course: (a) to acquaint the student with the various modes of learning and the conditions which facilitate learning; (b) to discuss the nature of individual differences and point out their significance for instruction and the arrangement of school work.

General topics: The psychology of learning; individual differences.

## 3. Child Development—Second year. Four hours. Full quarter.

The purposes of this course are: (a) to point out the child's requirements during the different stages of his physical development; (b) to describe the nature of the child's mental development and discuss the kind of school work which is adapted to him in any stage of development.

The following topics will be treated: Purposes and methods; anthropometrical measurements and growth; the development of attention and sense-perception; instruction in observation; the development of memory, imagination and thinking; the psychology of lying; the growth of feelings and ideas; volition, suggestion and interest.

104. Psychology of Elementary School Subjects—Third year. Four hours. Required. Full quarter.

The purposes of this course are: (a) to make an analysis of the school subjects with the object of determining what mental processes, and modes and conditions of learning are involved in studying them; (b) to review the results of experimental studies on the methods of teaching and learning the school subjects; (c) to discuss the necessity of varying the methods of teaching, and learning the school subjects with the progress made and with individual differences in children; (d) to criticize methods of instruction in the light of individual requirements, the result of experimental studies, and the mental processes involved in a given subject.

Topics treated: The elementary school subjects.

105. Psychology of the High School Subjects—Third year. Four hours. Required of students preparing to teach in the high school in lieu of Course 104. Full quarter.

The purposes of this course are: (a) the same as those enumerated in Course 104; (b) to familiarize the student with educational tests which are designed to measure the level of the child's performance in the high school subjects.

Topics treated: The high school subjects.

## 106. Clinical Psychology—Four hours. Full quarter.

The purposes of the course are: (a) to teach the student how to determine the mental status of a child thru first-hand observation, tests and experiments and thru the collection of hereditary, developmental and environmental data pertaining to the child; (b) to show how we may learn about the child's mental status from the effects of a prescribed course of treatment; (c) to show the social, racial and educational significance of varying degrees of mentality.

The following topics are treated: Methods and purposes of clinical psychology; mental classification of children; pathological classification of the feeble-minded; the treatment of special classes of children; social, racial and educational aspects of feeble-mindedness; mental characteristics of the feeble-minded.



**107. Mental Tests—Four hours. Full quarter.**

The purposes of the course are: (a) to make the student familiar with the means and methods which are employed to determine the child's general intelligence and the efficiency of his individual mental processes; (b) to point out the social, educational, psychological, and vocational significance of tests.

Topics treated: Various forms of individual tests, such as the Binet series and its modifications; various forms of group tests, such as the Army, Otis, National, and Pressey tests; tests of preception, memory, imagination, thinking, attention, psycho-motor control, and various combinations of mental processes.

**108a. Educational Tests and Measurements—Four hours. Fourth year. Required. Full quarter.**

Chief purpose of the course: (a) to give the student a working knowledge of the best instruments for measuring the child's school progress and his performance level in the school subjects; (b) to discuss the methods of using the educational tests and tabulating the results; (c) to point out their educational significance in all of its phases.

Topics treated: Tests and standards of reading, writing, spelling, arithmetic, geography, and all the other elementary school subjects.

**108b. Educational Tests and Measurements—Four hours. Fourth year. Required of students who will teach in the Senior High School.**

The purposes of this course are the same as those for 108a. The topics treated will be tests and standards of the high school subjects.

**212. Psychological and Statistical Methods Applied to Education—Four hours. Full quarter.**

Purposes: (a) to give school officials the technique necessary for the solution of educational problems involving the accurate measurements of mental processes; (b) to present the statistical methods employed in the treatment of educational data.

**213. Conference, Seminar, and Laboratory Courses—Hours depending upon the amount of work.**

Purposes: To make possible more intensive and exhaustive work by the student on problems of special interest to him.

Topics: Formal discipline; sex hygiene; retardation; mental tests; learning; retinal sensations; space perception, etc.

**ETHICS**

In the courses given below it is hoped that two essentials in the training of a teacher—Character and Personality—may be fostered and improved. The young woman who starts out upon her teaching career with a good ethical foundation, and the advantage of a character, developed through right ideals of conduct and appreciation, has assets which are invaluable.

**1. Ethics—Personal Talks on Right Living—Two periods. One hour credit. Full quarter.**

In this course it is the aim of the dean of women to get in touch with the personal side of each student. Living conditions will be taken up, and all matters pertaining to conduct will be open to friendly discussion.

**2. Ethics—Ethical Culture—Two hours. Full quarter.**

A course designed for instruction in the etiquette of every day life; a general appreciation of culture and its necessity in the training of a teacher. Lectures, book and magazine articles, reviews and reports.

**FINE AND APPLIED ARTS**

The Department of Fine and Applied Arts aims to prepare teachers to meet all the demands made upon regular teachers in public schools from the kindergarten through the high school in all branches of drawing,

and to train special students to act as departmental teachers and supervisors in Fine and Applied Arts. The courses are open as electives to all students of the College.

The department is well equipped. In addition to the regular equipment there is a museum of ceramics, original paintings, reproductions, and copies of masterpieces. The Museum of Ceramics is a collection of pottery, containing ancient and modern specimens from different countries.

**2. Methods of Teaching Drawing and Design in Primary Grades—**Four hours. Either half or full quarter.

Freehand drawing, elementary perspective adapted to illustrations, color, elementary design, drawing from animals and nature, picture study, black-board drawing.

**13. Methods of Teaching Applied Art in Primary Grades—**Four hours. Either half or full quarter.

Weaving, folding, cutting, stick printing, problems for special days, clay modeling, sand table projects, interiors, tools, toys.

**1. Methods of Teaching Drawing and Design in Intermediate Grades and Junior High School—**Four hours. Either half or full quarter.

Freehand drawing, perspective color, composition, design lettering, art appreciation.

**14. Methods of Teaching Applied Art in Intermediate Grades and Junior High School—**Four hours. Either half or full quarter.

Application of design and color to paper and card board construction, basketry, block-print, clay, toys costume, interior and table problems.

**3. Freehand Drawing—**Four hours. Either half or full quarter.

Perspective, drawing from objects and nature and animals. Sketching, mediums, charcoal, pencil, colored chalk.

**5. Water Color Painting—**Three hours. Either half or full quarter.

Studies from still life, nature and landscape.

**7. Constructive Design—**Four hours. Either half or full quarter.

Design applied to the construction and decoration of problems in tooled leather, block print, basketry, batik. Decoration of common objects.

**8. Pottery—**Four hours. Either half or full quarter.

History and appreciation of pottery, modeling and decorating tiles, vases, bowls. Casting, glazing.

**11. History of Architecture—**One hour. Either half or full quarter.

Illustrated lectures on the development of architecture; interpretations of famous buildings. An appreciation course.

**102. Commercial Art—**Four hours. Either half or full quarter.

Lettering, posters and pictorial advertising, design and color.

**16. Antique—**Four hours. Either half or full quarter.

Charcoal drawing from antique casts in outline and in light and shade.

**101. Drawing From Life—**Four hours. Either half or full quarter.

Study from costumed model.

**4b. Design—**Four hours. Either half or full quarter.

Principles of design and decorative composition.

**9. History of Art—**Three hours. Either half or full quarter.

Growth of the great schools and their influences; study of important masters and their work. Lectures with related readings.

**12. Household Art Design—**Four hours. Either half or full quarter.

Study of periods in furniture making and modern adaptation. Development of design and color for interiors and costumes.

**4b. Design**—Four hours. Either half or full quarter.

Development of the principles of design and color.

**105. Oil Painting**—Four hours. Either half or full quarter.

Still life, landscape composition.

**4a. Applied Design**—Four hours. Either half or full quarter.

Creative design with relation and application to textiles and other mediums. Principles of design.

## ROMANCE LANGUAGES AND LATIN

### Spanish

**1. Beginning Spanish**—Three hours.

Moreno-Lacalle Elementos de Español.

**5. Intermediate Spanish**—Three hours.

For second year students who can translate and understand spoken Spanish. El Palacio Triste and Placero y Yo will be studied. Conducted partly in Spanish.

**105. Advanced Spanish**—Three hours.

Devoted to modern Spanish drama. One play each from Benavente, Galdos, Sierra and Tamayo v Baus will be studied and read.

**225. Graduate Spanish**—Three hours.

Devoted to the history of Spanish Literature from its origin. Ford's Old Spanish Readings and Selections from Don Quijote and Novelas Ejemplares. Conducted entirely in Spanish. No translations into English being permitted.

### French

**1. First Year French**—Three hours.

Grammar and easy texts.

**5. Intermediate French**—Three hours.

Devoted to the usual high school texts read during the second and third year's work. Review of French Grammar and syntax.

**105. Advanced French**—Three hours.

Women in French literature and the French novel from 1610 to the present day. Half of the period will be devoted to lectures in French on French fiction. Conducted entirely in French.

**225. Graduate French**—Three hours.

Old French readings from la Crestomathie Francaise. Rapid survey of the earliest works in French Literature. Conducted entirely in French.

### Latin

**1. First Year Latin**—Three hours.

First Latin Book.

**5. Second Year Latin**—Three hours.

Caesar's Gallic War, Book 1. Latin Prose and a special study of Caesar's army.

**105. Vergil's Aeneid and a review of Mythology**—Three hours.

**225. Advanced Latin**—2 hours.

Plautus or Terence.

### Other Languages

A first year course, or any other year's work may be offered in Italian or German, by advanced enrollment only.

### GEOLOGY, PHYSIOGRAPHY AND GEOGRAPHY

The courses listed in this department are not review courses covering merely the material taught in the common schools. Such review courses are listed in the high school department for which no credit is given toward graduation from the college. Geography is not just a group of facts about different parts of the world. It is a definite science in which, in the underlying climatic and geologic causes, the superstructure of commercial and human factors is built. It is from this point of view that the work of this department is given.

#### 12. Geography Method—Two hours. Repeated second half quarter.

A course in which the history of geography teaching is taken up, followed by a discussion of the relative values of various methods of presentation. The materials suitable for each grade will be discussed.

#### 7. Geography of Commerce—Four hours. Continues through the full quarter.

Climate as a crop control, mineral deposits as locators of cities and industrial districts, other causes for the location of the world's large cities, and the supplanting of water by rail transportation, with a study of the principal rail routes, will be some of the subjects considered.

#### 8. Human Geography—Four hours. Continuous through the full quarter.

The relation of man to his environment and the various type environmental realms, as, for instance, the desert, tropical forest, mountains, etc., will be taken up. Required in the Intermediate, Sociology and History Courses.

#### 150. Geography of Colorado—Two hours. First half quarter.

A lecture course on Colorado geography touching the physiographic features of the state, the influence of the geologic past upon these features, weather phases and climate of Colorado, the main geographic controls in animal and plant distribution, Colorado man, past and present, and his distribution, the industries of the state and the geographic controls of industry.

#### 159. Geography of Australia—Two hours. Second half quarter.

A course on the climate, crops, mineral and timber resources with especial references to comparison with the United States. The evolution of these two great regions settled by people of English speech affords constant problems of similar and dissimilar development.

### HISTORY AND POLITICAL SCIENCE

#### 6. Recent Europe—Four hours. Either half or full quarter.

The period since Napoleon will be traced through the political, social, and industrial developments. The experience of the people since 1870 will furnish the basis for an understanding of the recent events. The relation of the people of the United States to European conditions will receive attention.

#### 12. State Government—Four hours. Either half or full quarter.

The organization and administration of state government. The government of Colorado will be the main interest of the course. Emphasis will be placed upon the functioning of state and local government.

#### 13. The Teaching of History—Two hours. Second half quarter.

The history of history instruction in schools; the aims and values of instruction; the courses of study; methods and materials for the several grades of instruction; testing results; school problems related to history, such as the place of history in the curriculum, and the relation of history to other subjects.

**26. The Teaching of Civics—Two hours. First half quarter.**

The development of civics instruction from the study of the Constitution to the present community civics; the value of civics in education for citizenship; the purpose of instruction in government; courses of study; methods and materials for the several grades of instruction.

**113. History—Three hours. Full quarter.**

The Literature of American History.

**124. History of the Far East—Four hours. Either half or full quarter.**

This is a study of the modern history of India, China, Japan, and the adjacent islands, with reference to their relations with Europe and the United States.

**215. Research in History.**

Students doing graduate work in history and political science may arrange work as desired.

**HOME ECONOMICS**

The Home Economics Course not only trains teachers of Home Economics, but also trains homemakers in the selection, use and care of materials for the home. It has as an ideal the establishment of sane standards of living, including the economic, social and esthetic sides of life.

It is the policy of the Home Economics Department to recommend as teachers of the subject only those students who have completed the four years course.

**HOUSEHOLD ARTS****4. Millinery—Two or four hours. Double period.**

The designing and construction of hats, appropriate and becoming to the individual.

Discussions of problems suitable for high school classes.

**112. Interior Decoration—Four hours.**

A study of the correct application of principles of design to interior decoration.

**107. Costume Design—Four hours.**

The solution of various problems in dress design. No dressmaking in the course.

**6. Elementary Dressmaking—Four hours. Double period.**

Selection and making of simple dresses.

**HOUSEHOLD SCIENCES****108. Household Management—Two or four hours.**

The course considers such problems as every housewife meets in a home of moderate means.

**104. Catering—Two or four hours.****1 or 2. Foods and Cooking—Four hours. Fee, \$3.00. Double period.****3. Cookery and Table Service—Four hours. Fee, \$3.00. Double period.**

Planning, preparation and serving various types of meals. Prerequisite high school 1 and 2 or equivalent.

**103b. Dietaries—Two or four hours.**

Study of selection of food. Chemistry not a necessary prerequisite.

## HYGIENE AND PHYSICAL EDUCATION

Students registering for the first time should make an appointment on registration day for the required health and dental examinations. Registration is not completed until these examinations have been made and recorded. These examinations are for the purpose of assisting students with their personal health problems and are free. The Medical and Dental Advisers keep regular office hours for free consultation regarding any or all individual health matters. The College does not, however, undertake any medical or dental treatment.

Students registering for practical (exercise) courses should dress in gymnasium costume and be ready for work at the first meeting of the class. Students coming to class in street clothing will be marked "absent." No exceptions will be made to this rule.

The courses offered by this department are divided into two classes as follows:

## I. Information Courses in Hygiene, Physical Training and Play

Courses in group one do not fulfill the College requirement for an activity course each quarter during the first two years. Hygiene and Physical Education 7 is required of all students during the first or second years. Hygiene and Physical Education 8 is required of all students during the third or fourth year.

## II. Exercise Courses in Physical Training, Play and Athletics

One course in this group is required each quarter during the first and second years.

## I. Information Courses

## 1. Physiology and Hygiene of Exercise—Four periods. Four hours.

Lectures, demonstrations, recitations. A required course for Physical Education Majors, but open to others who have had biology. Not given 1922.

## 2. Anatomy and Kinesiology—Four periods. Four hours.

Lectures, demonstrations, recitations. Use is made of skeleton, mannikin, charts and anatomical atlases in connection with text book assignments. Required of Physical Education Majors during the first year. Open to others who have had biology.

## 5. History of Physical Training—First year. First half quarter. Two hours.

The place given to Physical Education in the life of different nations. Beginnings of modern physical education; recent rise of play and recreation movement; effect of the World War on development of physical education in the United States and other countries, are among the topics considered.

## 6. Research in Physical Education. (See also Education 223.)

Qualified third and fourth year and graduate students may select a subject for research in Physical Education. The following subjects are suggested, but other suitable subjects may be chosen:

1. The status of physical education in the schools of Colorado, with a proposed plan for improvement.

2. The playground and recreation movement; its rise, growth, and present status.

3. A recreation survey of a selected community with a suggested plan for improvement.

4. Analytical study of the educational values of certain plays and group games.

5. Educational Athletics: Plan for a county or city school system.

6. Effects of the World War on the status of physical training in different countries.

7. Physical Education in the reconstruction program.

8. Physical efficiency forms for elementary school children.

By arrangement. Three or more hours, depending on the amount and quality of work accomplished.

**7. General Hygiene**—Five periods. Two hours. Either half. Required of all students at sometime during the first two years. Men and women.

A lecture, discussion course on general hygiene. Many lectures are illustrated. Consideration is given to: (a) mortality statistics as a basis for effective hygiene; (b) agents injurious to health; (c) carriers of disease; (d) causes of poor health; (e) defenses of health; (f) producers of health.

**8. Individual Hygiene**—Five periods. Two hours. Either half quarter. Required of all students during the third or fourth years. Men and women.

An informational course on the essentials of individual health conservation and improvement. Different sections for men and women.

**9. Child and School Hygiene**—Four periods. Four hours.

A course in Child and Educational Hygiene (see Education Psychology 1).

**12. First Aid**—Five periods. Two hours. Either half quarter.

A course covering the essentials of first aid in cases of accident or illness. The Red Cross Text Book is followed. Those who complete course may receive the Red Cross Certificate for First Aid.

## II. Exercise Courses

In order to secure credit for a full quarter in fulfilling the administrative regulation requiring "physical education exercise courses during each quarter in residence" during the first two years, it is necessary to carry one practical course throughout the entire Summer Quarter.

### The Following Are Exercise Courses

**101. Light Gymnastics**—Four periods. One half or one hour. Either half or full quarter.

**105. Personal Combat Games, Heavy Apparatus and Tumbling**—(Men). Four periods. One half or one hour. Either half or full quarter. Boxing, fencing and wrestling, tumbling and apparatus work.

**106. Singing Games and Elementary Folk Dancing**—Four periods. Either half or full quarter. First year students. One half or one hour. A course for those desiring rhythmic material for the lower grades.

**107. Folk and National Dances**—Four periods. One half or one hour. Either half or full quarter.

A selected list of folk and national dances suitable for school and playground use, especially for upper grade and high school groups. Two sections.

**108. Esthetic Dancing**—Four periods. One half or one hour. Half or full quarter. Students entering second half must secure approval of instructor.

Technic of the dance; plastic exercises, the development of bodily coordination and rhythmical responsiveness.

**109. Classical Dancing**—Four periods. One hour.

Advanced technic and classical dances. Prerequisite Course 108.

**111. School Gymnastics**—Four periods. One half or one hour. Either half or full quarter.

Class organization and conduct, marching, free, dumb-bell, wand, and

Indian club drills, principles of selection and arrangement of exercises, practice in organizing and leading drills, working out daily programs for different grades under school conditions.

**112. Plays and Games**—Four periods. One half or one hour. Half or full quarter.

A selected list of plays and group games suitable for use in the lower grades.

**113. Play, Playground Organization and Conduct**—Four periods. Three hours. Full quarter. Second year students.

The meaning of play; relation to mental and physical development; importance in moral and social training. One lecture and three practice periods per week. Required reference work.

**114. Athletics for Women**—Four periods. One half or one hour. Half or full quarter. Second year students.

A course in group and team games. Play material suitable for upper grades and high schools will be presented.

**115. Recreation Course**—Four periods. One half or one hour. Half or full quarter. Open to all.

A recreational activity course for men and women. This course will offer opportunity for instruction in swimming and tennis especially. A special fee of \$3.75 for each half quarter will be charged for the swimming lessons per week. This fee is to cover cost of transportation and the privileges of swimming.

**116. Athletic Team Games (Men)**—Four periods. One or two hours. Half or full quarter.

Lectures, field practice, competition; administration of athletics, athletic budgets and equipment, training and conditioning teams, discipline, etc., will be the topics. The course is planned to meet the needs of school principals and teachers interested in the athletic problems of schools.

**117. Athletic Coaching**—Four periods. Three hours. Full quarter.

A course for those preparing for the physical education field. Advanced students will be assigned to coach groups in one or more athletic team games. By arrangement. This course may be repeated.

**118. Corrective Gymnastics.**

A course for those who are not able to take the regular class work. A special regimen, depending on the disability, is worked out for each individual case. Number of hours of credit. Admission only on certificate of the College medical advisers. Students admitted to this class may not carry more than 15 hours. In some cases the number of hours may be reduced below fifteen.

## LITERATURE AND ENGLISH

The courses offered in Literature and English fall into three classes:

1. Courses in grammar and composition. 2. Courses in methods of teaching Literature and English in elementary and high schools. 3. Literary courses, cultural in nature, or intended to equip a high school teacher of English with the teaching materials and a literary background.

**1. Material and Methods in Reading and Literature**—Two hours.

A study of motivation in the field of reading, oral and silent, for children; the consideration of principles governing the choice of literature in the grades; practice in the organization and presentation of type units, including dramatization and other vitalizing exercises. A somewhat flexible course, affording opportunity for intensive work within the scope of any grade or grades, according to the individual need or preference.

**2. The Teaching of Written English**—Two hours.

This course takes up the problems of teaching formal English, both spoken and written, in the intermediate grades, and the junior high school. The functional teaching of grammar is included.



### 3. Public Speaking and Oral Composition—Three hours.

The endeavor of this course is to establish the student in habits of accurate speech, and to encourage fluency, vigor and logical marshaling of his thought in discourse of varied types, including exposition, description, narrative, oratory, argumentation, free dramatization.

### 4. Speaking and Writing English—Required of all students unless excused by the head of the English department. Three hours.

Grammar, and oral and written English, from the point of view of their function in guiding the student in the correct use of English in speaking and writing. Practice in sentence making, sentence analysis, recognition of speech faults, and the means of correcting them; and practice in both oral and written composition.

### 6. American Literature—Four hours.

A course in American literature following the plan of Courses 8, 9, and 10 in English literature.

### 10. The History of English Literature—Four hours.

A reading course following the development of our literature from 1798-1892.

### 13. The Art of Story Telling—Three hours.

A study of the main types of narrative, with emphasis upon the diction and manner suitable for each. Practice in the art of story telling.

### 15. Types of Literature—Two hours.

A reading course looking toward an appreciation of literature and covering all the types of literature that can be made interesting to young people and to contribute to the formation of good taste in reading. This would include English, American, and Foreign literature which has become classic. But no matter how "classic" it is, it still must be attractive. The types covered will be lyric, narrative, and epic poetry, drama, essay, story, novel, letters and biography.

### 16. Types of Contemporary Literature—Two hours.

A second appreciation course similar to Course 15, but dealing with the literature of not more than ten years back. Most teachers of literature leave the impression that literature must age like fiddles and wine before it is fit for human consumption. Such is not the case. Much good literature is being produced every year. After students leave school it is just this current literature that they will be reading if they read at all. We want to help them form a discriminating taste for reading, and to acquire a liking for reading so that they will be alive to what the world is thinking, feeling, doing, and saying after they leave the school.

### 17. Comedy: A Literary Type—Three hours.

The consideration of comedy as a type of drama, with intensive and comparative study of a Shakespearean comedy. The group interpretation of a Shakespearean comedy on the campus. Sometimes, when the class is large, other programs of standard plays are also given.

### 101. Journalistic Writing—Three hours.

A course in advanced English composition based upon newspaper and magazine work. Every type of composition used in practical news and journalistic writing is used in the course.

### 105. Oral English in the High School—Two hours.

The discussion of practical problems concerning the direction of Oral English in the secondary school: oral composition, literary society and debating activities, festivals, dramatics.

### 106. The Teaching of English in the High School—Two hours.

Principles for the selection of literature for senior high school pupils considered critically; illustrative studies in the treatment of selected pieces; study of types of composition work for high schools, with illustrative practice in writing.

**121. Nineteenth Century Poetry—Two hours.**

A study of English poetry from Wordsworth to Tennyson, including Coleridge, Byron, Shelly, Keats, and the lesser writers from 1798 to 1832.

**122. Victorian and Contemporary Poetry—Two hours.**

Tennyson and Browning, and the general choir of English poets from 1832 to 1892, and an attempt to estimate the significance of current tendencies in poetry, English and American; supplemented by sufficient reference to current verse of other literature to afford comparison or analogy.

**127. Selected Plays of Shakespeare—Four hours.**

The life of Shakespeare and a literary study of the plays which are appropriate for high school use, with a proper amount of attention to the method of teaching Shakespeare in high schools. Some account of the theater in Shakespeare's time.

**133. The Recent Novel—Four hours.**

The reading of ten typical novels of the past five years for the purpose of observing the trend of serious fiction to study the social, educational and life problems with which the novelists are dealing.

### Graduate Courses

Graduate students may take any course in the Department of Literature and English numbered above 104.

**230. Conference Course—**This course number is intended to cover special study in collecting material for the thesis required for the degree of Master of Arts in the department of English. The assignments will of necessity be made individually to each student preparing a thesis.

### MATHEMATICS

There has been a rather wide-spread idea among school administrators that anyone with a knowledge of subject matter could teach mathematics. As a result we have in many of our schools specialists in English, History, Latin, and various other subjects assigned to take classes in Algebra and Geometry. This again has led to some severe statements as to the value of the whole subject of mathematics in the secondary schools. What we need is a great number of teachers trained to teach mathematics as it should be taught.

The aim of every course given here is to train students to go out and teach this ancient branch of science so that it will have the very highest value to the one taught.

**1. Solid Geometry—First half or full quarter. Four hours.**

This course takes up the ordinary theorems of solid geometry and at the same time emphasizes the main points to be kept in mind by the teacher in presenting the subject of geometry.

**2. Plane Trigonometry—First half or full quarter. Four hours.**

Of all the secondary mathematics subjects trigonometry presents the greatest number of contacts with actual problems outside of the classroom. This fact is used in presenting the subject here. The surveyor's transit and chain are used freely.

**5. College Algebra—Either half or full quarter. Four hours.**

The work begins with a review of the work of elementary algebra with special attention to a clear understanding of the principles involved. The needs of those who expect to teach high school algebra are constantly kept in mind.

**6. College Algebra—Either half or full quarter. Four hours.**

This course deals with the more advanced topics, such as theory of equations, determinants, series, etc.

**7. Analytic Geometry**—First half or full quarter. Four hours.

Modern high school algebra is of such a nature that no teacher of this subject can come anywhere near reaching full efficiency without a knowledge of analytics. This course gives a clear logical treatment of the subject that can be easily mastered in a quarter's work.

**8. The Teaching of Arithmetic**—Two hours, first half quarter.

This course deals with modern movements and methods in the teaching of arithmetic. The actual problems of the class room are considered and ways and means of solving these problems presented and discussed. The aim is to give those who take the course something they will find of real help in teaching when they get into the school room.

**100. The Teaching of Secondary Mathematics**—Two hours. Second quarter.

In this day of unrest and progress the teacher who stands still is soon far behind his fellows. The object of this course is to consider the recent developments in the teaching of Secondary Mathematics and to give such suggestions and help as will make the teaching of algebra and geometry vital.

**101. Differential Calculus**—First half or full quarter. Four hours.

It is in the subject of calculus that the student gets his first real glimpse of the almost unlimited power of mathematics. To the teacher of even secondary subjects it gives an inspiration and a breadth of view that means much for his success in the class room. The course as here given covers the usual fundamentals of differential calculus.

**102. Integral Calculus**—First half or full quarter.

This course deals with the problem of integration and its many applications.

More advanced work in the field of mathematics may be arranged for by consultation with the head of the department.

**MUSIC**

The courses offered by the department are of two kinds: (a) Courses which are elementary and methodical in their nature and are meant to provide comprehensive training for teachers who teach vocal music in the public schools.

(b) Courses which treat of the professional, historical, literary and esthetic side of music, or for those who wish to become supervisors or professional teachers of vocal and instrumental music.

Courses for grade teachers and general students: Music 1, 2 and 3.

Courses for supervisors and professional teachers of music: Music 2, 105, 7, 8, 9, 10, 12, 13 and 14.

Courses which are cultural in their nature, and meant for the general or special student: Musical 7, 10, 12, 13, 14, 15 and 120.

**Private Instruction**

The Conservatory will be in full operation during the entire Summer Quarter. Students wishing to begin vocal or instrumental study or to continue their study while attending the Summer School will find an ideal opportunity to study with unusually accomplished teachers at very attractive rates.

The fixed policy of the Conservatory is to provide individual instruction of the highest possible artistic type at a considerably lower cost than is usually charged for the same grade of instruction. This is made possible because the state assumes all actual expense of salaries of teachers, and other overhead expenses, as it does in all other college subjects.

Especially attractive rates will be made to professional students or serious students who may wish to take three or more lessons per week.

A flat reduction of 10 per cent will be made to students wishing to take advantage of this opportunity. Rates will be furnished upon application. Practice rooms may be secured at the College.

Recitals by the Musical Faculty and by students will be given during the Summer Quarter.

The Chorus will present a program of worth-while numbers during the quarter. Those interested in choral singing should register for Music 6 the first week of school. Frequent recitals will be presented by the Philharmonic Orchestra to which all students will be invited.

In case there is sufficient demand a special group of carefully picked students will form a Glee Club. Students interested in this organization should report to the director as early in the quarter as possible.

### 1. Sight Reading—Required of Majors in Music. Three hours.

Notation, theory, sight reading. Designed especially for teachers desiring to make sure their knowledge of the rudiments of music so that they may be able to teach music in the public schools more efficiently.

### Music 2a—Required of Majors in Music. Three hours.

Methods for the Primary Grades. The teaching of Rote Songs. How to help Monotones. The development and care of the child voice. A delightful repertoire of Rote Songs is acquired. The work of the first three grades is studied intensively. The first steps in technique.

### Music 2b—Required of Majors in Music. Three hours.

Methods for the Intermediate Grades. An intensive study of the problems of the teacher of these grades. Sight Reading, Interval Drill, Signature of keys (major and minor), Care of the Voice. All problems of these grades considered and practical solutions offered.

### Music 2c—Required of Majors in Music. Three hours.

Methods for junior high school. Material and methods for the crucial period in the musical career of the child. The changing boy voice. Intensive study of part singing. Musical appreciation for these grades. A practical course to meet the needs of the teacher.

### 6. Chorus Singing—One hour.

Worth-while music and standard choruses are studied and prepared to present in concert.

### 8a. Harmony—Required of Majors in Music. Three hours.

Beginning harmony. The work consists of written exercises and the harmonization of melodies in four voices. These are corrected and subsequently discussed with the students individually. Work completed to the harmonization of dominant discords and their inversions.

### 8b and 8c—Required of Majors in Music. Six hours.

Harmonization of all discords. The circle of chords completed, modulation, etc. The harmony courses continue throughout the year, and the work is planned to meet the individual needs of the class.

### 9. Advanced Harmony—Three hours.

A continuation of Courses 8a, 8b, and 8c.

### 10. Methods in Appreciation—Required of Majors in Music. Two hours.

This course is planned to prepare teachers to present more intelligently the work in appreciation of music, for which there is such a growing demand in all our schools. A carefully graded course suitable for each grade is given. The lives and compositions of the composers from Bach to Wagner are studied.

### 12. Individual Vocal Lesson—Required of Majors in Music.

Correct tone production, refined diction and intelligent interpretation of songs from classical and modern composers. To make arrangements for this work, consult the director of the department.

**13. Individual Piano Lessons—Required of Majors in Music.**

Piano work is arranged to suit the needs and ability of the individual. From beginning work to artistic solo performance. To arrange work, consult the director.

**14. Individual Violin Lessons.**

The work will be outlined according to the ability of the student. To arrange work, consult the director.

**15. Individual Organ Lessons.**

Organ work is arranged to meet the needs of the individual student. Some knowledge of Piano is a prerequisite. To arrange work, consult the director.

**105. Supervisor's Course—Four hours.**

The material used in the grades and high school is taken up and studied from a supervisor's standpoint. Actual practice in conducting works of a standard nature will be offered those interested in this course.

**120. Interpretation and Study of Standard Symphonies—Two hours.**

The standard oratorios are studied. The best known solos and choruses are presented by members of the class or talking machines. The content of the work is studied with the hope of catching the spirit of the composer. The symphonies of Haydn, Mozart, Beethoven, Schumann, Schubert and other writers of the classical and modern schools are presented to the class.

## PRACTICAL AND INDUSTRIAL ARTS

The Practical Arts Division includes industrial arts, fine and applied arts, and commercial arts. The courses are varied and are organized especially along lines dealing with the technical phases of practical arts education, opportunity being given for study along historical, practical and theoretical lines. An excellent training department, housed in the Training School Building, gives full opportunity to put into practice in a teaching way the ideas presented in the various courses. This gives an opportunity for the individual students not only to become acquainted with the underlying principles in the work, but also the added advantage of teaching these branches in the Training School under expert supervision.

### Woodworking, Drafting, Printing and Bookbinding

The Woodworking, Drafting, Printing and Bookbinding Departments of the State Teachers College are the most modern departments to be found in the Middle West. The departments occupy the first and second floors of the Guggenheim Hall of Industrial Arts. The rooms are large, well ventilated and well lighted. The students in these departments are never crowded for room or hindered in their work from lack of equipment. All equipment is of the latest and best type and is always kept in first-class working condition. It is the aim of the departments to employ methods in woodworking, drafting, printing and bookbinding as thorough and practical as are to be found in the regular commercial shops.

**5. Vocational Education—Required of all Majors in Industrial Arts, Commercial Arts, and Fine and Applied Arts. Four hours. Either half or full quarter**

The course deals with the historical development and the fundamentals of teaching practical arts subjects in their relations to other subjects of the school curriculum and their application in future activities that the child will enter.

**1. Elementary Woodwork**—Required of Industrial Arts Majors. Four hours. Fee, \$1.00. Either half or full quarter.

This course is arranged for those who have had no experience in wood-working and is designed to give the student a starting knowledge of the different woodworking tools, their care and use. The construction of simple pieces of furniture is made the basis of this course.

**2. Intermediate Woodwork**—Required of Industrial Arts Majors. Four hours. Fee, \$1.00. Either half or full quarter.

This course is a continuation of Course 1 and is designed for those who wish to continue the work, and deals with more advanced phases of wood-working.

**19. Wood Turning**—Required of all Industrial Arts Majors. Four hours. Fee, \$1.00.

The aim of this course is to give the student a fair knowledge of the woodworking lathe, its care, use and possibilities. Different types of problems will be worked out, such as cylindrical work, working to scale, turning duplicate parts, turning and assembling, the making of handles and attaching them to the proper tools. Special attention will be given to the making of drawings such as are used in ordinary wood turning.

**10. Elementary Mechanical Drawing**—Four hours. Either half or full quarter.

This course is designed to give a knowledge of the use of drawing equipment and materials. Problems presented include geometrical drawing, elements of projection, development of surface, isometric and oblique projections, simple working drawings and lettering.

**118. Advanced Machine Design**—Four hours. Either half or full quarter.

A study is made of the transmission of motion by belts, pulleys, gears and cams. Sketches, details and assembled drawings are made of valves, vises, lathes, band saws, motors and gas or steam engines.

**109. Advanced Art Metal**—Four hours. Either half or full quarter.

The base for this course is the designing, making and finishing of artistic jewelry in semi-precious and precious metals, including all the steps that are fundamental in stone setting and finishing.

**201. Seminar**—Four hours. On demand. Either half or full quarter.

Individual research work in the field of practical arts. Problems to be selected upon consultation.

This is a conference course. Conference hours will be arranged to meet the demands of students in the course.

**Note:** Other courses listed in the regular Year Book not listed in the Summer Catalog may be taken by special arrangement with departments in which courses are offered.

### Printing

**1a. Elementary Printing**—Four hours. Either half or full quarter.

The aim of this course is to acquaint the student with the various tools and materials of a print shop and to teach him the fundamentals of plain type-composition. He will carry simple jobs through the various stages from composition to making ready and printing on the press.

**2a. Intermediate Printing**—Four hours. Either half or full quarter.

A continuation of elementary printing with a view to making the student more proficient in the fundamentals of the art. The principles of typographic designs will be studied in the designing and composing of letter-heads, tickets, programs, etc. Color study in selection of papers and inks.

**3a. Advanced Printing**—Four hours. Either half or full quarter.

A continuation of the study of typographic design in the laying out and composition of menus, title and cover-pages, advertisements, etc. Imposition of four- and eight-page forms, advanced press work and a study of plate and paper making will be given.

**4. Practical Newspaper Work**—Four hours. Either half or full quarter.

The various processes incident to the printing of a newspaper will be performed by the student in this course.

**5. Shop Management—Four hours.** On demand. Either half or full quarter.

Organization of the various forces of the shop to maintain production with efficiency. Planning for the mechanical processes of printed product. Planning and selection of equipment. Maintenance of equipment.

**6. Shop Accounting—Four hours.** On demand. Either half or full quarter.

Keeping of shop records and accounts. Purchase of printing materials.

### Leather Craft Art and Bookbinding

**1a. Elementary Bookbinding—Four hours.** Either half or full quarter.

This course includes the following: tools, machines, materials and their uses, collating and preparing their sheets for sewing, sewing on tape and cord, preparing of end sheets, trimming, gluing, rounding and backing, head-binding, banding and preparing backs for covers, selecting cover materials, planning and making of covers and all steps necessary for the binding of full cloth, buckram, and paper bindings, having spring or loose backs; also the binding of one-quarter loose and tight back leather bindings with plain and fancy edges. The making of small boxes, writing pads, memoranda books, leather cases, cloth portfolios and kodak albums.

**1b. Elementary Bookbinding—Four hours.** Either half or full quarter.

A continuation of Bookbinding 1a.

**1c. Elementary Bookbinding—Four hours.** Either half or full quarter.

A continuation of Bookbinding 1b.

**2a. Intermediate Bookbinding—Four hours.** Either half or full quarter.

This course includes the binding of books in half leather, half morocco, cowhide, calf, sheep, and fancy leathers; also the planning and making of full leather travelers' writing cases, music cases, and art leather work.

**2b. Intermediate Bookbinding—Four hours.** Either half or full quarter.

A continuation of Bookbinding 2a.

**2c. Intermediate Bookbinding—Four hours.** Either half or full quarter.

A continuation of Bookbinding 2b.

**3a. Advanced Leather Craft Art Work—Four hours.** Either half or full quarter.

This course is a review of both of the other courses in higher grade work and construction. Full leather bindings with raised panels is given in this course. Gilt edging, fancy edges including starch and agate edges.

Finishing in antique and gold, hand lettering in all its phases, tooling in gold and antique, stamping on stamping machines, of cloth, leather, and other materials in blind, gold and other metals and foils.

**3b. Advanced Leather Craft Art Work—Four hours.** Either half or full quarter.

A continuation of Bookbinding 3a.

**3c. Advanced Leather Craft Art Work—Four hours.** Either half or full quarter.

A continuation of Bookbinding 3b.

**4. Shop Management**—Four hours. Either half or full quarter.

The organization of the various forces of the shop to maintain producing and efficiency in the work. Planning of the mechanical work of binding. Laying out and selection of materials and methods of equipment. Floor space planning and arrangement for public schools and colleges.

**5. Shop Accounting**—Four hours. Either half or full quarter.

Keeping of shop records and accounts. Purchasing and selection of materials such as tapes, papers, buckram, leathers, etc.

**6. Cost Accounting**—Four hours. Either half or full quarter.

Advanced work growing out of shop management, shop accounting and equipment, dealing with the factors that enter into the estimating of production costs, such as materials and general shop expenses, etc.

**Note:** All advanced courses by special arrangement.

## PHYSICS

The various courses to be given by the Physics Department have a double purpose in view; first, to give the students an adequate knowledge of theoretical and applied physics; second, to develop in close co-operation with the students more efficient methods of teaching this subject in secondary school and college. Although the former is essential, the latter constitutes the problem proper in a teachers college.

In our century of intense industrialism, the role of physical science has become of such importance that its place in the public school curriculum ought to be carefully reconsidered. The Physical Department of Colorado State Teachers College is, therefore, facing the two-sided problem:

1. What ought to be the purpose and the organization of physics teaching in a progressive school?
2. What ought to be the best organization of physics teaching under existing conditions?

These two sides of the problem will constantly be kept in view in all courses given by the Physics Department. In these courses topic, problem, and project methods will be combined in such a way as to allow the classroom to be organically absorbed by the laboratory. Then only will the motivation become natural; the students will then find a motive where they used to find a text book. Moreover, the students will be placed in the atmosphere of actual teaching in full co-operation with the Physics Department. "Red-letter" lessons will be both practiced and observed by the students. This will force them to lead, so to speak, a treble existence: that of a college student, that of a high school pupil, and that of a teacher.

Such is our purpose, our main problem, to which will be subordinated all other purposes, however interesting or useful in themselves.

The two sides of the problem, if correctly approached, will give ample opportunity to the initiative and originality of the students in organizing their own work.

The problem of teaching physics, if correctly solved, will put into their hands a powerful instrumentality for imparting to their own pupils, "the methods of experimental inquiry and testing, which give intellectual integrity, sincerity and power in all fields of human activity"; it will, moreover, enable them to arouse the somewhat slow enthusiasm of the high school pupil for this master science of our century.

**103**—Four hours. Either half.

This course although practical, will not enter into the narrow technicalities of a trade school course. The reason why this course is given, lies not



in the importance acquired by the automobile in our every day life but in the multiplicity of physical principles involved in the gasoline engine upon which many interesting experiments and projects can be organized.

**111a—Two hours. First half.**

This course is primarily intended for teachers of science or for less experienced teachers of Physics. They will deal with the outstanding chapters of Mechanics, Heat, Sound, Light, Magnetism and Electricity.

**111b—Two hours. Second half.**

A continuation of Physics 111-A.

**201—Two hours, second half.**

This course is intended for teachers both of high school and college. Its main purpose is the organization of lectures, experiments, projects and "red letter lessons" in close cooperation with the department.

**202—Four hours. Full quarter.**

This course provides an adequate reformation concerning the laws of electrostatics and electro-magnetics, illustrated by experiments and projects based upon practical applications of electricity. It presents out of the immense mass of electrical phenomena only those which have a direct bearing upon the teaching of physics in secondary schools and colleges. The course will include experiments, problems and projects on D. C. and A. C. machinery, telephone, telegraph, wireless, etc.

**203—Four hours. Full quarter.**

This course will include a simple exposition of the mechanical theory of heat; the effect of heat upon properties of matter; various forms of energy and their transformations. Principle of equivalence. Carnot-Clausius principle. Dissipation of energy.

This course will be accompanied by a series of experiments and projects based upon steam engines, gas engines, etc.

**205—Two hours. First half.**

This course will begin with the Newtonian concept of the universe and follows the evolution of theories of light, heat and electricity. It will include elements of the electro-magnetic theory of light, the electro theory and radio activity as well as an outline of the theory of relativity.

**104. The New Physics—Four days. Two hours. Either half quarter.**

This course is devoted to the study of electrons, kathode rays, X-rays, alpha rays, beta rays, gamma rays, and radium and its disintegration products. We are well equipped to illustrate this course.

**3. General Physics—Four hours. Full quarter.**

A course in magnetism and electricity. Text-book: Kimball's College Physics.

## SOCIOLOGY

This department regularly offers a series of courses in Sociology, Anthropology, and Economics. While designed primarily to meet the practical needs of elementary and high school teachers, supervisors, administrators, and social workers, the courses are so arranged as to provide a special preparation for the teaching of the subjects named, and for a liberal training in the field of social thought. A full four-year course is offered.

As a knowledge of sociology is commonly regarded as a necessary basis of educational theory and practice, courses specially adapted to supply such basis, and to render practical assistance to all grades of teachers, are given in the Summer Quarter. The specific courses offered for the quarter beginning June 16, 1922, are as follows:

**3. Educational Sociology**—Three hours. Full quarter. Required of all first year students.

This course presents the sociological conception of education with certain sociological principles and their application in education. Text and special readings.

**105. The Principles of Sociology**—Four hours. Full quarter. Required of third year students.

This course is a study of the scope and history of sociology, sketches of the leading contributors to this science, and an exposition of its main principles as set forth systematically in a selected text. Lectures, readings and reports.

**130. Social Psychology**—Two hours. Full quarter.

A study of suggestion and imitation, crowds, mobs, fads, fashion, crazes, booms, crises, conventionality, custom, conflict, public opinion, etc. Text, Ross' Social Psychology.

**209. Seminar in Sociology**—Four hours. Full quarter.

Only graduate students, or those capable of doing graduate work, will be admitted to this course. The exact nature of the work will be determined after consultation with the class, but it will probably be a study of the means, methods and possibilities of the conscious improvement of society.

**132. The Family**—Three hours. Full quarter.

A study of the evolution of the family with emphasis on the modern situation. Particular attention will be paid to the relationship of the family to education, industry and ethics.

**110. Economics**—Three hours. Full quarter.

A course based on Seager's "Principles of Economics" and covering, in addition to the Principles of Economics, the subjects of the Industrial Revolution in England, the Industrial Expansion of the United States, Tariff, Monopolies, Railroads, Profit Sharing, Trusts, Taxation, the Labor Movement and Legislation, Social Insurance, and Socialism.

# Colorado State Teachers College

GREELEY, COLORADO

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## SUMMER QUARTER, 1922

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### The Calendar

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June 16-17, Friday-Saturday—Registration Days for the Summer Quarter.

June 19, Monday—Classes begin.

A fee of two dollars is collected for late registration after Saturday, June 17.

July 25, Friday—The first half of the Summer Quarter closes.

Students, if possible, should enroll June 16-17 for the Full Quarter, but they have the privilege of enrolling for either Half Quarter independent of the other. Many courses run through the first Half Quarter only. Some run through the Second Half Quarter only. Most of the courses, especially the required courses, must be taken throughout the whole quarter before any credit will be given.

Normal hours of credit: Either Half Quarter, 8 hours; Full Quarter, 16 hours.

July 28, Monday—New enrollment for the Second Half Quarter. Classes begin.

August 25, Friday—The Summer Quarter closes. Graduation Day.









COLORADO STATE  
TEACHERS' ASSOCIATION  
Greeley, Colo.





THIS VOLUME was bound in the  
BINDERY of COLORADO STATE  
TEACHERS COLLEGE

By Marie Oberding  
Full Quarter, 1922

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Colorado State Teachers College  
Bulletins  
1921 - 22  
Series 21  
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# Colorado State Teachers College

# BULLETIN

SERIES XXI

APRIL, 1921

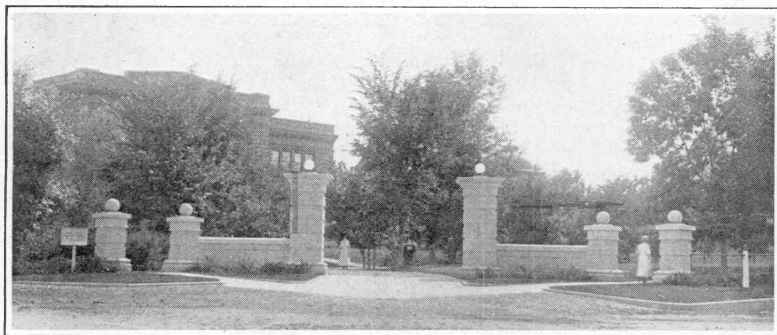
NUMBER 1

*Summer Quarter*

1921

STATE HIGH SCHOOL OF  
INDUSTRIAL ARTS

High School Department of Colorado State Teachers College  
Greeley



Published Monthly by State Teachers College, Greeley, Colorado  
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of March 1, 1879

- A. E. BROWN, A.M., Principal. Director of Secondary Education, State Teachers College, Instructor in General Methods.
- GEO. A. BARKER, A.M., Professor Geology and Climatology, State Teachers College, Instructor in Geography.
- MARK BURROWS, A.B., Director of County School Administration, State Teachers College, Instructor in School Management.
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- WILLIAM H. HARGROVE, B.S. in Ed., B.S. in Agriculture, Professor of Agriculture, State Teachers College, Instructor in Rural Life and Education.
- GLADYS KNOTT, M.S., Head of the Science Department, State High School of Industrial Arts, Instructor in Geography.
- ARTHUR E. MALLORY, A.B., Head Mathematical Department, State High School of Industrial Arts, Instructor in Mathematics.
- LUCY N. MCLANE, A.B., Head of Department of Oral English, State High School of Industrial Arts, Instructor in Literature.
- ORA B. PEAKE, A.M., Head of History Department.

## *Foreword*

The Summer Quarter of the State High School of Industrial Arts is designed primarily for adults who have not completed their high school education. Of the adults it is particularly for those who are teaching and who desire to improve their knowledge of subject matter and of teaching technique. Such persons will find in the School of Reviews a splendid opportunity to increase their professional value as educators; a more confident presentation of subject matter, and an increased capacity to lead in the community should result from this ten weeks of study.

### THE CITY OF GREELEY

The State High School of Industrial Arts, which is a part of Teachers College, is located at Greeley, in Weld County, Colorado, on the Union Pacific and the Colorado & Southern Railways, fifty-two miles north of Denver. This city is in the valley of the Cache la Poudre River, one of the richest agricultural portions of the state. The streets are lined with trees, forming beautiful avenues. The elevation and distance from the mountains render the climate mild and healthful. The city is one of Christian homes and contains churches of all the leading denominations. There are 10,000 inhabitants.

Information about interesting trips, the Summer Quarter lecturers, etc., will be found in another part of the bulletin.

### THE SCHOOL OF REVIEWS

The School of Reviews is a special feature of the State High School of Industrial Arts. It is the summer phase of the Ungraded School for Adults. The Ungraded School for Adults is a school which attempts to provide educational opportunity for people who have reached the age of maturity without having completed their high school education. For various causes young people often discontinue their high school work before they complete the four year course, and many of these people after experi-



ence in fighting the battles of life discover that a high school education is very desirable for purposes of success and self realization. To such persons the Ungraded School for Adults is indeed a boon. They are admitted with deferred classification and when their ability has been demonstrated they may be allowed some credit for life experience which appears to have been of educational value.

The following opportunities are to be found in the School of Reviews:

1. Opportunity to obtain credit toward high school graduation.
2. Opportunity of pursuing review courses giving both a firmer grip on subject matter and an expanded view of the subjects of instruction.
3. An opportunity to receive instruction on improved methods of presentation of subject matter.
4. An opportunity to take some work along cultural lines, and to enjoy the cultural advantages of a collegiate institution.

The following is the schedule of the courses in the School of Reviews:

7:00—Grammar and Primary Methods.

8:00—Arithmetic and Geography.

9:00—American History and Rural Life and Education.

10:00—Management and General Science.

11:00—Hygiene and Methods.

Credit is given toward graduation for the courses given in the School of Reviews.

### THE REGULAR HIGH SCHOOL COURSES

During the summer regular High School work is maintained in most of the high school subjects. This gives an opportunity for those to study who prefer to use a part of their summer vacation for that purpose. It also gives an opportunity for those who have some deficiency in their high school work, to make up such deficiency. The work will be of the same high quality that is required through the other quarters of the school year. Classes will be maintained in Mathematics, English, History, Science, Art, Commercial, Home Economics, Languages and Mechanical Drawing. The State High School of Industrial Arts has a high standing as is shown by the fact that it is accredited by the University of Colorado and by the North Central Association of Colleges.

### FEES AND OTHER EXPENSES

The fees for the summer School of Reviews are as follows:

Single subjects ..... 5 weeks \$3.00    10 weeks \$ 6.00

Two subjects ..... 5 weeks \$6.00    10 weeks \$12.00

Three or more subjects..... 5 weeks \$9.00    10 weeks \$18.00

Those registering for regular High School work will be charged the regular rate of \$4.00 per quarter.

An approved list of rooms is kept by the College. The cost of rooms is from \$14.00 to \$18.00 per month. Board may be had in private homes and boarding houses at from \$6.00 to \$6.50 per week. The College Cafeteria also serves excellent meals at a reasonable cost.

## SUMMER LECTURES

The State Teachers College secures for the Summer Quarter a number of the leading educational men of America. Some of these men give evening lectures, which are free to persons enrolled in the High School. These lectures deal with educational themes and other themes pertaining to community leadership and responsibilities. They are inspirational and helpful in concrete ways. These lectures therefore constitute an exceptional opportunity. We give below the names of some of these lecturers:

Dr. Edward Howard Griggs, Author and Lecturer on Literature and Philosophy, New York City.

Dr. Edward Carey Hayes, Head of the Department of Sociology in the University of Illinois and author of standard books on Sociology and Economics.

Dr. Lincoln Hulley, President of John B. Stetson University of Deland, Florida, will give courses of lectures on Literature and History.

Dr. Edward A. Steiner, Professor of Sociology in Grinnell College, Iowa, lectures on Social, Industrial and Immigration Problems.

Dr. Edward L. Thorndike, Head of the Department of Educational Psychology, Teachers College, Columbia University, lectures and classroom work in Educational Psychology.

Dr. William F. Snow of New York City, lectures and classroom work on Hygiene and Public Health.

## CAMP DUNRAVEN

The week end excursion to the Rocky Mountain National Park conducted by the Outing Committee of the College, will be continued this year. Automobiles start at 11 A. M. each Friday and reach the Camp in Estes Park for a mid-afternoon dinner, then proceed to Longs Peak Inn. A booklet giving complete particulars can be had by addressing the Extension Department of the College.

## EXTENSION WORK

For the benefit of those who may want to pursue high school extension courses later, classes in some of the extension courses, particularly mathematics, will be started. Three or four lessons will be worked out with the assistance of the teacher so that the pupil can get the technique of working out the lessons alone. This will be of great value to those who desire to pursue extension work.

## THE SUMMER QUARTER CALENDAR

Registration begins on Monday, June 20. Classes begin Tuesday, June 21. The first half of the Summer Quarter closes Friday, July 22. The second half begins on Monday, July 25. The Summer Quarter closes on Friday, August 26.

For further information concerning the Summer Quarter of Reviews write A. E. Brown, Principal State High School of Industrial Arts, Greeley, Colorado.

Series XXI

Number 2

MOUNTAIN CLUB

(Oblong book of views, see separate volume)







# Colorado State Teachers College BULLETIN

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SERIES XXI

JUNE, 1921

NUMBER 3

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Section Six of the Educational Survey  
of Colorado State Teachers  
College

## THE TRAINING SCHOOL

by

FRANK L. WRIGHT  
Professor of Education



GREELEY, COLORADO

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Published Monthly by State Teachers College, Greeley. Entered as Second-Class Matter at the Postoffice, Greeley, Colorado, under the Act of August 24th, 1912

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BUREAU OF  
EDUCATION  
SERIES XXI  
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of Colorado State  
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# Colorado State Teachers College BULLETIN

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Section Six of the Educational Survey  
of Colorado State Teachers  
College

55422

## THE TRAINING SCHOOL

by

FRANK L. WRIGHT  
Professor of Education



Published By  
**THE BOARD OF TRUSTEES**  
Greeley, Colorado  
JUNE, 1921



# Foreword

Peculiar difficulties have attended the working up and presentation of this Survey Report on the Training School. The sub-committee originally assigned by the Chairman of the Survey Committee to examine and report to the faculty the Training School situation consisted of the Director of the Training School (who as Chairman was to write the report) and two other members of the faculty,—one a Training School teacher and the other a teacher in the College proper. The general questionnaire of the faculty was to afford the starting point for the work of this sub-committee as well as of the other groups.

At the close of the first year, however, the Director of the Training School was elected to the principalship of a city normal school, and the other two members of the sub-committee left the school—one for service in the Army and the other to a new teaching position; so the work for the first year stopped with the collecting of the data on the general questionnaire.

The sub-committee was reconstituted the following year with the new Director of the Training School as Chairman. At the close of the year he was elected to the presidency of a Western normal school, and the work of the sub-committee again was halted.

To make sure of completing the work when the sub-committee was again constituted it seemed necessary to draft as Chairman a member of the Survey Committee who had been in contact with the work of the Committee from the beginning. The faculty are under obligations to Mr. Wright for his undertaking this oft-interrupted piece of work—so long after the period when the data were fresh.

It is universally agreed that the satisfactory operation of a training school is the most difficult phase of the established work of a school for teachers. It is made far more difficult than the operation of a public school, because of its **double purpose**. It must first be made a **first rate school for children**. It must then be made a **first rate school for prospective teachers**. The eighty years of the normal school experiment in the United States have still not taught us finally the one best way of doing these two, apparently simple tasks. Only those who are acquainted with the real problem think that its solution is simple.

Many years of experience, however, have finally brought substantial agreement among educators in regard to the desirability of developing **two major lines** of training school work. First, it is clear that the effective preparation of teachers requires the development of the "demonstration or observation or model school" function, in order that prospective teachers may see and reflect over the finest examples of what **teaching can be**, in the hands of a master. Since teaching is essentially an **art examples** are fundamental to learning it. Second, it is clear that the preparation of teachers requires the development of the student-

telligent practice. About these two functions of the training school there teaching function. Art implies skill, and the basis of skill is merely in- is no question. And it is clear that under favorable conditions the two may be successfully developed together in a single training school. This is in fact the characteristic task of the director of a training school—to develop these two training school functions to their highest efficiency.

This task is complicated by the mathematical relations existing between the numbers of training school children and the numbers of college students or prospective teachers. The problem is easiest in the small normal school where the proportion of training school children to prospective teachers is large. It is hardest in the large school for teachers where the proportion of prospective teachers is much larger. The growth of a school for teachers always eventually brings it face to face with this difficulty. It is instructive to see how various schools have met the problem. It is sometimes evaded by permitting all the teaching in training school to be done by student teachers. Needless to say this is not a satisfactory solution. It is sometimes met by developing the "observation or demonstration or model school" function and decreasing or even omitting altogether the student teaching function. Neither is this a satisfactory solution. In a dozen or so of normal schools in the United States we may today see another type of solution,—students taking turns at teaching while their fellow-students "play class." It is ludicrous to see mature men and women making believe to receive a lesson in beginning reading or arithmetic from a make-believe teacher. The problem is again sometimes side-stepped by asserting that the training school should become a laboratory for experiment. It seems, however, that the experiment function if developed at all must be developed in a separate school. The typical training school has its hands quite full in the attempt to meet the other two purposes.

It is finally becoming clear that if we adopt the two-fold training school purpose above stated we face certain obvious alternatives as schools for teachers grow. We assume first that growth is not to be accompanied by any lowering of efficiency. Then, either (1) the training school must be proportionally increased in size as the number of student-teachers increases; or (2) the enrollment of the college or normal school must be restricted when the training school has reached its maximum size; or (3) the school for teachers must acquire student-teaching facilities in the public schools of the state. This last solution is becoming ever more common; and it is becoming clear that in the future normal schools will not be located in communities either too small to provide the necessary training school or unwilling to do so; and it seems likely that in the competition of the future the teachers colleges that lack adequate training school facilities will be forced either to move or lose their chance to draw the best grade of students.

While the present study does not go deeply into these central problems of training schools it does suggest that the Greeley situation is at present somewhat better than is found in a considerable number of normal schools. Happily, it seems that it can be made still more favorable

before the limits of fruitful growth are reached even with the present facilities; and the obvious possibilities of extending the facilities have not as yet been touched. That they will be is as certain as that the College will grow.

The report calls attention to the fact (well known to all students of the normal school problem) that the state teachers college touches few rural school teachers. No normal school or teachers college has ever been able to. Good departments of rural work have been established in many schools but prospective rural teachers do not enroll. The employing of additional professors of rural school education is hardly a solution. Nothing will enroll prospective rural teachers in normal schools except a state certification requirement. In the meantime institutes, extension work and summer schools may be of considerable use.

Among the several other needs of the training school reported in this study probably that which is most pressing is the matter of the printed curriculum. The need is only more obvious than are the clues to meeting the need. The relation which a training school bears to the central purpose of a school for teachers requires that its curriculum shall cover the usual materials of the public schools of the state,—the materials which its graduates must teach—and its organization of instruction must of necessity be such a one as can be carried out under the conditions existing in a typical public school.

Section VII, The Course of Study, still remains to be published.

J. G. CRABBE,

President



# The Training School

## A Preliminary Statement

Studies have been made within the past few years, which attempt to show that there is a difference in the intelligence of children enrolled in training schools and of those enrolled in the regular public schools. In this study it would have been desirable to have had access to data of this type in both mental and educational tests, but no such data had been taken at the time of this survey, 1917-18. There are no records as to mental ability or educational attainments or even teachers' marks of a single child who attended the elementary school during the year 1917-18, or any year previous. A card like the following was filed for each child in the training school during the year 1917-18, but was evidently destroyed by the next training school director. These cards are being completed again this year, 1920-21, for all children enrolled in the school.

|  |  |
|--|--|
| 5Name -----                                  | Colorado State Teachers<br>College<br><br>Training School<br><br>Pupil's Record Card<br><br>Address -----<br><br>New Address ----- |
| Date Birth: Yr. ---- Month-- Day -- Place -- |  |
| Mental ----- Grade ----- Test-----           |  |
| Parent or Guardian ----- Occupation -----    |  |
| Graduated: Yr. ----- Month ----- Day -----   |  |
| Withdrew: Year ----- Month ----- Day -----   |  |
| 2Cause of Withdrawal -----                   |  |

| GRADE             | 3Age | Date of Ad-<br>mission |       |     | Days<br>Present | Days<br>Absent | 6Effort | Scholarship6 | Non-Promoted |       |     | Promoted |       |     | 4Cause<br>Promotion<br>Non- |
|-------------------|------|------------------------|-------|-----|-----------------|----------------|---------|--------------|--------------|-------|-----|----------|-------|-----|-----------------------------|
|                   |      | Year                   | Month | Day |                 |                |         |              | Year         | Month | Day | Year     | Month | Day |                             |
| Kinder-<br>garten | B    |                        |       |     |                 |                |         |              |              |       |     |          |       |     |                             |
|                   | A    |                        |       |     |                 |                |         |              |              |       |     |          |       |     |                             |
| First             | B    |                        |       |     |                 |                |         |              |              |       |     |          |       |     |                             |
|                   | A    |                        |       |     |                 |                |         |              |              |       |     |          |       |     |                             |
| Second            | B    |                        |       |     |                 |                |         |              |              |       |     |          |       |     |                             |
|                   | A    |                        |       |     |                 |                |         |              |              |       |     |          |       |     |                             |

1. This card shall be kept on file in the Director's office.
2. Financial conditions of home, illness in family, personal illness, physical defects, incapacity, indifference, failure of promotion, left city, go to work.
3. Give age on birthday nearest September 1, of current school year.
4. Irregular attendance, physical defects, incapacity, indifference.
5. Last name first.
6. Below average, above average, average.

| GRADE   |   | Age | Date of Admission |       |     | Days present | Days absent | Effort | Scholarship | Non-Promoted |       |     | Promoted |       |     | Cause Non-Promotion |
|---------|---|-----|-------------------|-------|-----|--------------|-------------|--------|-------------|--------------|-------|-----|----------|-------|-----|---------------------|
|         |   |     | Year              | Month | Day |              |             |        |             | Year         | Month | Day | Year     | Month | Day |                     |
|         |   |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
| Third   | B |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
|         | A |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
| Fourth  | B |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
|         | A |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
| Fifth   | B |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
|         | A |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
| Sixth   | B |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
|         | A |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
| Seventh | B |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
|         | A |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
| Eighth  | B |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |
|         | A |     |                   |       |     |              |             |        |             |              |       |     |          |       |     |                     |

The Year Book for 1918-19 gives the only information to be had concerning these elementary school children; this publication lists merely the names of the pupils for each grade.

Because of the delay occasioned by change in personnel of the Committee, opportunity is afforded to refer to the Carnegie's Survey of the Missouri Normal Schools (1) and Wilson's Study of Training Departments in the State Normal School in the United States (2). The material in this bulletin on teacher training facilities in Colorado State Teachers College, however, has been limited to the year 1917-18 or earlier, even though many changes for the better have taken place since that time.

This preliminary statement should probably contain one other point so that the reader may the better understand the writer. It will be remembered that Montaigne in his "Education of Children" says that persons should not quote from others "for fear the comparison renders the appearance of their own writings so pale and sallow that they lose much more than they gain." The writer has in no sense followed the advice of this educator, but on the other hand, has been very liberal indeed in his filchings. Otherwise, there would have been little material for a



survey of Teacher Training facilities in Colorado State Teachers College.

- (1) The Carnegie Foundation for the Advancement of Teaching, Bulletin No. 14 "The Professional Preparation of Teachers for American Public Schools."
- (2) Wilson, L. A.—"Training Departments in the State Normal Schools in the United States." Eastern Illinois Normal School Bulletin No. 66.



# Training School Survey

## I. INTRODUCTION.

One of the most important factors in determining the standing of any teacher training institution is its facilities for student teaching. If every teacher in the United States were required to have at least one year of student teaching under careful supervision, much time and energy of both pupil and teacher in the public school as well as the resources of the community would be conserved. After showing the loss to the pupils and communities of poorly trained teachers, Prof Mead (1) says "How such a loss can be justified ethically is not clear." The importance of Teacher training has not been seriously considered. If it had been given enough consideration no such statements as the following would appear in an official bulletin (2): "Of the 20,000,000 children of the United States 10,000,000 are being taught by teachers who have had no special preparation for their work and whose general education is clearly inadequate."

"Of the 600,000 public school teachers in the United States it has been estimated by competent authorities that 65,000 are teaching on permits not being able to meet the minimum requirements of County Superintendents."

Teaching is a vocation. "Vocational education which ignores practical training is largely futile. When the time arrives in the development of the boy or girl when he should seriously undertake preparation for a calling it is necessary that somehow and somewhere he should be able to devote a considerable time to actual participation in the concrete process of the calling itself" (3). Few would be willing to trust themselves to surgeons who had not one or two years of clinical work after their schooling. So the public school administrator goes on this same supposition when he demands experience. This experience in the way of teacher training under expert supervision may be provided largely by the Training School in Teacher Training institutions.

That the validity of supervised teacher training "has been accepted in practice is indicated by the fact that a training department is maintained by every state normal school in the United States and by a considerable number of private normal schools." (4)

Persons responsible for teacher training have gone on record repeatedly as to the value of the training department. Such statements as the following indicate the attitude of leaders in the field of Normal school administration toward the Training school: "Actual teaching is capable of ranking as the most valuable course for the students" (5); "There is no longer any question in the minds of those competent to judge, that the place of the Training Department is pivotal; it is the hub from which should radiate all the activities of the other departments" (6); "The training school is the heart of the Normal School" (7). President J. G. Crabbe of Colorado State Teachers College expresses his opinion in these words: "The Training school in any teacher training producing agency including State Normal Schools and Teachers Colleges is the very heart of the Institution. Without it there can be no real satisfactory training of teachers. It is a quasi clinic for prospective teachers. It is the final testing out agency for teaching in any system of Training Schools. The Director of the Training School should be the biggest man among the members of the faculty in scholarly attainments, experience and character." (8)

In spite of these expressions on the part of Administrators, the fact probably remains as is expressed by the Carnegie Foundation "It is not

too much to say, indeed that the Training department is the weakest part of the structure, (in the Missouri Normal Schools) and the same thing is probably true in many, if not most of the State Normal Schools in this country." (9)

Theoretical value of a training department is seldom realized in practice because of lack of a common knowledge of the best features of all training schools by those responsible for teacher training; and because of a "general lack of a satisfactory correlation of all of the work of the Normal School with the Training School. Not only does the training school as a rule occupy a subordinate position in the normal school organization instead of being the pivotal point and focus of all departments, but the work of the training school seems in many, if not most, cases to be detached, to lack a fundamental relation to what is taught and learned 'upstairs'. It is no unusual thing for the Normal School student to complain that the theory that has been taught to him in courses in psychology, principles of teaching, and special methods (to say nothing of the purely academic courses) has no perceptible connection with the work of the training school. This is sometimes due, no doubt, to the fact that the 'theory' is impracticable and that those responsible for the practice teaching know it, and in consequence will have no commerce with it; but it is oftener due merely to a complete mechanical separation of the training department both from the department of educational theory and from the academic departments,—a separation which results in the total ignorance of each party regarding what the other is teaching or practicing, if not, indeed, in actual opposition or open friction". (10)

In spite of this friction however, several studies which have been made tend to show the value of teacher training. H. G. Childs in his study of the value of practice teaching for teachers in secondary schools, had reports from nineteen city superintendents upon as many teachers who had done practice teaching as a part of their preparation. The summary of these reports, as given by Wilson is: "Ten of the 19 teachers were decidedly above the average of all teachers in the teaching staff, 17 of the 19 were equal to or above the average of all, but two were below the average and none were reported unsatisfactory. The comparison with other teachers with no previous teaching experience is still more striking as 14 of the 19 were rated decidedly above the average; only one was rated below the average and none were rated as unsatisfactory". (11)

Furthermore of 79 teachers who had done practice teaching as a preparation for later teaching, "69 reported that it had much value; eight that it had moderate value; two that it had little value".

The purpose of this survey of the teacher training facilities in Colorado State Teachers College, then is two-fold: (1) to present impartially facts concerning organization, material, methods, defects and advantages of the system, so that they may become common knowledge to all administrators or others interested in the training of teachers, who desire it; and (2) (the much more important purpose) to bring to the members of the faculty of the College, a **conscious** realization of the problems and short-comings; to bring about a more definite unity of purpose on the part of the faculty; a more thorough realization that the College exists for the sole purpose of the training of teachers, that the training school is the central, most positive agency in the school for the realization of this purpose, and finally that the success or failure of the training school in accomplishing this definite purpose, depends largely on each member of the faculty, be he Dean, Director of the Training School, Training Teacher, or the most insignificant assistant in the institution.

- (1) A. R. Mead, The Ethics of Student Teaching, Educational Administration and Supervision. Vol 6: 395.
- (2) Supplement, January N. E. A. Bulletin, 1920, p. 3.
- (3) David Snedden, The Problems of Vocational Education, p. 27.
- (4) L. M. Wilson, Training Departments in State Normal Schools of the United States. The Normal School Bulletin, Eastern Illinois Normal School, p. 9.
- (5) N. E. A. Addresses and Proceedings, 1899, p. 846.
- (6) N. E. A. Addresses and Proceedings, 1809, p. 561.
- (7) Report of the National Council of Normal School Presidents and Principals, Educational Administration and Supervision, March 1918, p. 166.
- (8) Introductory Paragraph in "The President's Final Opinion of the Training School and what a Great Training School Ought to Be"—President J. G. Crabbe—Private File.
- (9) Carnegie Foundation for Advancement of Teaching. Bul. No. 14, p. 192.
- (10) Ibid Page 199
- (11) Eastern Illinois Normal School Bulletin No. 66 Pages 12-13



## II. THE FUNCTION OF THE TRAINING DEPARTMENT.

If the Training School is (or is expected to be) the "hub," "the very heart," "the heart and core," of the teacher training institution, then to determine the function of the one will involve the function of the other. It might be well, at this point, however to throw out the suggestion that the training school is not the only department of a teacher training institution which contributes materially to the training of teachers. But it is probably safe to say that a clear statement of the function of a teachers college will pretty clearly define the purposes of the training department of that Teachers College also.

The function of Colorado State Teachers College is expressed thus: "The function of the Teachers College is to make teachers. To do this it must keep abreast of the times. It must lead in public education. It must project the future. The modern conception of education embraces all of human life. The deep and rich notion enlarges the function of an institution that aims to prepare teachers. This function embraces in its relations: the faculty, the child, the student, the home, the state, society, and the course of study." (1)

Professor E. D. Randolph's statement of the function of a Teachers College is probably as good as any that has been formulated, thus far. He says, "The function of a Teachers College is the insuring to society of a more reliable agency of social solidarity and progress—a body of public school teachers who as a result of prospective adjustment to (1) their social responsibilities and (2) the institutional duties they will have in the public schools, will be able to cooperate with the spirit and in the technique of modern education to secure the due relationship between public school work and the effective pressures of life.

"In brief, Teachers Colleges are expected to exercise wise leadership rather than merely to perpetuate existing practices. They are to organize social pressures in response to modern educational thought and thus facilitate the slow adjustment of the public school to social conditions. While insuring efficiency in what must be done, they are to guarantee to society that what most needs to be done shall not be omitted." (2)

It would be worth while for the faculty of any institution to try to state the function of that institution, as they see it. Without some unifying agency such as a faculty council, there would probably be little unanimity of statement, but value would come from the unity of purpose required in the consideration of a common problem. Furthermore some members of any faculty might be made to realize, by such an undertaking, that they are not realizing the function it is intended they should.

It would be worth the time and energy of the faculty of Colorado State Teachers College, also, for each to carefully formulate the function of the Training School as a department of the College and to determine how its activities may be correlated with those of other departments. It is unfortunate that in the present survey a statement of the function of the Training School was not called for from every member of the faculty. As will be seen from reading the following questionnaire which was sent to all members of the faculty, each individual was asked to state the function of his department. Consequently the function of the Training School was stated only by teachers in the Training School.

Here is the questionnaire which was sent to all members of the faculty. The returns will be discussed only as they apply to the Training School.

## GENERAL QUESTIONNAIRE OF THE FACULTY

- A thoroughly frank and completely independent response is desired.
1. Make a complete but concise statement:
    - (a) of the function of your department.
    - (b) of its organization to accomplish that function.
  2. What are the chief barriers to realizing your department's functions?
  3. Make a complete but concise statement:
    - (a) of the function of each of your courses.
    - (b) of interrelations of your courses.
  4. What are the chief barriers to realizing these functions?
  5. List all the changes made in the last two years in either the organization of your department or school, or in the emphases within established activities of the department or school (including new courses framed, old courses abandoned or changed), stating in each case the reasons for the changes or abandonment and the method of accomplishing the changes (e. g. whether by co-operative effort or otherwise.)
  6. List all the changes which in your opinion should be made in the organization of your department or school, and in the emphases within the established activities of your department or school.
  7. To what extent do the activities of your department cooperate with the activities of other departments? To what extent should they be cooperative?
  8. List what seem to you the most important problems of the College.

Since there are really three separate divisions of the Training Department of Colorado State Teachers College,—The State High School of Industrial Arts, The Elementary Training School, and the Rural Demonstration Schools,—it will be necessary to give the aims as formulated by the teachers in these various divisions.

### Functions of the County Schools

The printed statement of the functions of the county schools department is "The object of the courses offered here is to prepare county teachers for community leadership and to assist in the proper organization and management of the type of school found in the open country. However every effort consistent with existing conditions and lasting progress shall be made to point out the importance of reorganizing the county educational system upon a principle that shall lead to centralization. While the new conception of a new school is in progress of formation we must make the best of the present situation. Whatever may be the organization, equipment or skill in management, good teaching is the fundamental source from which the product of our schools can be judged. The rural teacher, especially, on account of limited time and a crowded curriculum should have a clear-cut knowledge of the material he teaches. It shall be one of the chief aims of the department to stress the importance of scholastic preparation, a professional training that relates the child closely to the teaching process and of making the county school of the future a dynamic force in the community." (3)

In answer to the questionnaire, the Director of County Schools says, "The function of the County School Department is to train teachers for County Schools so that the numerous characteristic difficulties of management, administration and teaching may be met effectively; to adapt the subject-matter to the experience of country children; to apply knowledge of the sociological conditions prevailing in country sides; to assist country folks to hold their own against artificial attractions of town and city by supplying factors for making country life adequately satisfying; and finally to enrich and increase the sources of good by conserving the life blood of the nation."



## Functions of the Industrial High School.

In the Year Book the statement is made that "The primary function of the High School Department is to train that group of teachers who expect to enter the field of secondary education." (4)

The Principal of the Secondary school has given the following functions:

1. After giving the functions as quoted from the Year Book above, the instructor continues: The way in which this purpose is realized is best expressed, perhaps, in a report submitted to the President last spring and approved by him. \* \* \*

The essential features of the report are incorporated in certain courses of study which are found in last year's catalogue (See page 62 and 63)

The Industrial High School acts also as a feeder for Teachers College. This is a secondary, though important function. Last year's catalogue contains names of ninety-four of our own high school graduates who were resident students of Teachers College during the three winter quarters. This number is considerably increased by non-resident and summer school students.

I believe that our High School Department meets the needs of the young people who expect to enter the profession of teaching more perfectly than any other high school in the state. The growth of the school is rather a convincing evidence of this fact. The enrollment in 1913-14 was 156; in 1916-17, 389. The latter number includes the summer school students but does not count any student twice. The enrollment for the winter term of 1917-18 is thus far 304. If the summer enrollment should be added the total passes substantially beyond the 400 mark.

Instead of defining the function of the secondary training school, the departmental teachers responded with reference to the field in which their teaching is done. Only three of the eight so much as mentioned the training of teachers as a function. In two of these cases, teacher training was mentioned last among the functions. This indicates that the training of teachers is not considered the most important function of the secondary school by the secondary teachers. These responses indicate that subject matter is an important factor in Industrial High School, that the pupil also plays an important part, and that student-practice-teaching is given a subordinate place. Neither a "professional" consciousness, nor a unified consciousness is in evidence in the responses. There is little in the above returns which would indicate that the teachers realize any distinction between the functions of a Teachers college and of a Liberal Arts college.

## Functions of the Elementary Training School

The printed statement of the function of the Elementary Training School is: "The training school has three functions in connection with college students (1) to test their ability to teach and place the final stamp of approval upon their college course, (2) to give them the best modern methods of teaching, and (3) to give to majors in the kindergarten, primary, and upper grades special training which is intended to fit them for special work and teaching in these departments." (5)

The functions, as presented by the members of the faculty of the elementary training school follow:

1. The function of the Training School is to train young people in the art of teaching. This should be at the heart of the institution. I take it that the ultimate aim of each department in this institution is to contribute something to the teaching power of those who go out from its portals.

While the Training School constitutes but one department out of many, all aiming at the same end, it holds the unique position of being most closely related to each department.

Some departments contribute content or subject matter in their courses. Other departments contribute methods and principles of teaching as well as content.

In the Training School content and children are brought together under the direction of certain methods and teaching principles that have been accepted by the best educational thinkers of the day. Here both content and teaching principles are judged by the reaction of children.

Here standards for judging classroom instruction should be worked out and applied.

This is the educational laboratory where young people learn, through practice, the art of teaching children how to study.

2. The function of the kindergarten is to train teachers in the principles and practices of the Kindergarten, to give primary teachers an understanding of the work of the Kindergarten, and to demonstrate the value of Kindergarten experience for children.

3. The function of the Primary teacher in a training school is to prepare primary teachers.

4. The function of the Training School is (1) the training of teachers, (2) the serving as laboratory for trying out new methods and theories, (3) the instruction of children.

5. The function of the Training School is (1) to train teachers, (2) to teach children, (3) to lead the community and state in new educational methods, (4) to provide a laboratory where educational experts may experiment.

6. The function of the Training School is (1) to build up and maintain an advanced twentieth century public school, modern in every respect and worthy of a great educational clinic, (2) to train teachers for the elementary schools of our country.

7. The function of a training school it appears should be that of a leader in advanced educational thought and practice; therefore, its purpose would be threefold: (1) An experimental school, (2) a model school, (3) and a practice school. It seems then that the chief function is to test theory or theories of the most modern thinking and the ability to teach with sustained effort and insight on the part of college students.

8. The business of a teachers' college, it seems to me, is to prepare teachers of high ideals, of wide knowledge of educational problems and progress, and of keen professional interest to teach with the greatest possible efficiency.

The function of a training school, I take it, is (1) to give practical training for such efficiency of service; (2) to raise the student's standards of what can be actually accomplished in the development of the child's mind and character in an up-to-date school; (3) to test the practicability of the best educational theory. An ideal training school is therefore three schools in one,—a practice school, a model school or school for observation, and an experimental school.

9. To train teachers for the elementary schools.

TABLE 1.

Summary of Functions of Training School as stated by Elementary School Faculty.

| FUNCTIONS   | Number of |    |
|---|-----------|----|
|   | faculty   | %  |
| 1. To train teachers  | 8         | 89 |
| 2. To serve as an educational laboratory  | 5         | 56 |
| 3. To serve as a "model school"   | 2         | 22 |
| 4. To lead county and state in educational methods; to maintain an advanced Twentieth Century public school | 2         | 22 |
| 5. To instruct children   | 1         | 11 |

It will be noted that only one of the teachers mentions the function of a teachers' college. The eight other teachers may or may not have a clear conception of the function of the teachers' college of which they are a part.

There is evidence however, that these elementary training school teachers have a clearer and a more nearly unified conception of the function of their unit, than do the teachers in the Industrial High School. The fact that eight of the nine teachers mention as a function of the training school, "To train teachers"; and that in the case of all but two, this function was mentioned first, indicates that this is considered the chief aim. Five of the nine teachers are agreed that the training school should serve as a "laboratory" or "an experimental school." It is intended that it shall be a laboratory "for trying out new methods and theories," "where educational experts may experiment," "to test the practicability of the best educational theory." Nothing is said as to whether the school is to be a laboratory for the training teachers and the students in training only, or for all other members of the faculty as well. Suffice it to say a few research bulletins have been worked out through experimentation carried on in the training school. (6)

The County School Department is the one phase of teacher training in Colorado State Teachers College by which the student teacher is furnished actual public school experience, since these student-teachers do their practice teaching in rural schools. Student teachers in the Industrial High School and the elementary training school have no opportunity to practice under typical public school conditions unless these schools are furnishing this opportunity.

It seems that the authorities who determine the policies of the training facilities of Colorado State Teachers College (1917-18) are anxious that the organization and activities be changed so as to render this "practice teaching under typical public school conditions" possible to a much greater degree than is possible at present. One other point of emphasis as to function, also, is that these schools shall be **schools for children.**

President Crabbe in a communication to the principal and teachers of the elementary training school, says, "Its function is to produce the finest type of City Public School PLUS better teachers; a better curriculum which is to be definite but flexible; a better daily program, definite but flexible; most modern methods; modern equipment; highest ideals; immediate advice and expert council with College Professors; rational research work and sane experimentation that may be without injury to pupils.

"Ninety per cent of our graduates go out from the College to teach in Public Schools. Our business is to prepare them for this life work.

**"This school for children** is the **foundation** of all of the work of the Training School and must be supreme in organization, plans, policy, method, etc. The work of the children must never suffer because of the work in observation and student teaching." (7)

President Crabbe further suggests that it should be **"A School of Observation and a School of Practice,"** which will be discussed under organization.

It would seem fitting before passing from the statement of the functions of Training School to sound a note of warning to administrators who would make these training schools "typical public schools" and "for the children."

Certainly one is justified in saying that any Training School within a Teachers College exists **primarily for the Student Teachers.** "The plea of the traditional Training School man that the **first interest to secure in a Training School, is that of the children is in the final analysis only an evasion of the very considerable difficulties of securing both sets of interests.** The point of danger is, of course, that too much teaching of children may be given to inexperienced teachers. It is quite easy to exagger-

ate this danger, however; because taking the situation by and large (as we should) all the public schools are largely taught by inexperienced teachers and mainly by not very well-trained teachers, and always with far less supervision or opportunity to profit from mistakes than is the case in any well-regulated training school. If we are to stress the interests of children, it should be those of the larger group of children, namely, the public school children, in whose interest our school was created.

"The general type of school that should be established will necessarily be one not modelled upon the public schools. The reason for creating Teachers Colleges is to be found in the deficits of the public schools. The professional studies of (conscious) Teachers Colleges, are definitely directed to changing unsuccessful public school procedures."  
(8)

Then a Training School organized as a "typical public school," yet operated with the conscious purpose of changing "unsuccessful public school procedure" presents an anomaly. The fact must not be overlooked, however, that one does not prepare for a certain type of activity and then engage in activity of a totally different kind. This means that there must be some training of the teacher who is to go into the public school, for that public school experience. It means further that the teacher who is to "be able to cooperate with the spirit and in the technique of modern education" will probably need training outside the traditional public school.

Finally, then the function of a Teachers College is to insure "efficiency in what must be done" and "to guarantee to society that what most needs to be done shall not be omitted." The Training Department of a Teachers College exists primarily for the student teachers. It must, however, harmonize the interests of the student-teachers with the interests of the children to be taught in the public schools. Its faculty must be ever mindful of the functional relations of the Training School to the Teachers College. This may be brought about by wise, broad leadership in the College and in the Training School.

- (1) Year Book & Catalogue, Colorado State Teachers College, Bulletin, April, 1917—Page 31.
- (2) E. D. Randolph, Professor of Sociology, Chairman of General Survey Committee "Analytical Outline of the Essentials of Organization."
- (3) Year Book and Catalogue, Colorado State Teachers College—Bulletin April 1917.
- (4) Year Book 1917-18 Colorado State Teachers College Bulletin, April 1917.
- (5) Year Book and Catalogue, 1917-18 Colorado State Teachers College Bulletin, April 1917, P. 63.
- (6) 1916—A Study in Addition—16 pages.  
1917—Errors in English—16 pages.  
The experimental work on two other studies—one in spelling and one in reading—had been made previous to the time of this survey.
- (7) The President's Final Opinion of the Training School and What a Great Training School Ought to Be.
- (8) E. D. Randolph—Analytical Outline of the Essentials of Organization. (Unpublished at this time).

### III. BARRIERS TO TRAINING SCHOOL EFFICIENCY.

**What are the chief barriers to realizing your department's functions?**

In answer to this question, faculty members other than those of the elementary Training School had little to say. Here are the only two references to the training department made by members of the faculty other than teachers in the Rural Department, the Industrial High School and the Elementary Training School.

"Student teachers are 'placed' in the training school with little reference to what courses they have taken in the College."

"Lack of appreciation of the administrative difficulties involved in dividing the work of a teacher between high school and college work."

#### **Barriers to the County Schools Department.**

The Director of the Department of County Schools gives the following "Barriers to Realizing Functions."

1. The uncertainty of securing and holding competent teachers for the demonstration schools.

There is no sufficient reason why these schools should not be placed approximately upon the same basis in point of salary, expert teaching and direction as the training school. The rural population of the state pays its proportionate share of the taxes in support of the College as compared with the cities and is entitled to the same consideration.

The maximum salary paid to Demonstration school teachers at present (1917-8) is \$810.00 per year, and the minimum is \$765.00. The maximum in the Training school is \$1800.00 per year. The maximum in cities is \$900 to \$1000 per year. The call from the cities is an attraction to our best Rural Demonstration teachers to leave their positions.

When the right teacher is found, she should be started with a minimum of \$1000.00 or \$1200.00 per year. The district of course would pay the major portion of the salary.

2. Under the present conditions the Director of County Schools has small opportunity to organize his work through the aid of County Superintendents and know the problems first hand as they arise in rural communities. Certain courses should be given more frequently during the year and the Director should be relieved when occasion demands it, from some of the instruction he is now giving so that he may answer the calls received from the field.

3. Teachers College is the only institution in the state that prepares teachers directly for work in the rural schools. Only 36 teachers can be so trained with our present facilities. Three thousand are needed in the state. The rural school problem can only be solved by giving teachers the specific training necessary to meet the conditions prevailing in the country.

4. The head of the department should be given such freedom and initiative as will enable him to carry out the details of a policy inaugurated with the end in view of holding him for results. (This statement and the next which is not quoted indicates that the Director thinks he has not been given initiative either in handling the department or in spending the budget.)

#### **Barriers to Realizing Function of Industrial High School.**

With the exception of the principal, the teachers in the Secondary Training School answered the question largely from the point of view of departmental teachers of English, the languages, history, etc., rather than as members of a training school. Of the twenty-eight barriers recorded by the members of the faculty of Industrial High School, thirteen or over forty-six per cent were strictly departmental, while thirteen others dealt with problems of inadequate teaching force, rooms and

equipment, which in turn may have been given with a view to the particular department, rather than teacher training, in many instances.

The principal says:

The chief barriers are lack of adequate teaching force (especially men), rooms and equipment.

a. Taking these defects up in the order given, I would say that during the past three years four men have been transferred from the high school to the college faculty. And there is not now, excepting only the principal, a single man left on the high school faculty. It is clearly apparent that this condition should not obtain. It is true, however, that a number of high school classes are taught by men who are in the college faculty and this in part supplies the need of strong masculine influence essential to the organization and development of an efficient high school. The addition of several thoroughly trained men to our faculty would greatly benefit the high school.

Turning now to the question of room. The high school department has at its disposal six recitation rooms, an office and a chapel. In only one of the rooms can a large class be accommodated without discomfort. If it were not for the fact that the high school students have the privilege of using the college laboratories, and the additional fact that when they are taught by the college faculty the recitation is usually held in college rooms, it would be utterly impossible to house the students at present in the high school. The high school has just the same room that it had when its enrollment was 100.

Now as to equipment, it is perhaps enough to say that only one room in the high school department is provided with comfortable chairs. The rest are furnished with folding chairs, (in the main). The situation which has been described under this heading, the faculty has endeavored to bear patiently, realizing that a better day was coming and that in a few years the question of room, equipment and teaching force would be more commensurate with the urgent needs of a growing school. We mention these merely in order that the committee may understand some of the difficulties under which the high school has labored.

Other barriers mentioned which have to do more or less with the preparation of teachers are:

1. Lack of practice teachers.
2. Lack of time for consultation with practice teachers.
3. Too much of the teacher's time is taken up with clerical work outside of this department, such as
  - (a) Making out and mailing the monthly grade cards for high school students.
  - (b) Checking daily chapel attendance.
  - (c) Chairman of the High School Y. W. C. A. Advisory Committee.
  - (d) Treasurer of High School Loan Fund.
  - (e) Faculty Advisor.
  - (f) Miscellaneous clerical and stenographic work for High School office.

TABLE II.

Barriers given by Industrial High School Teachers.

|   | No. of barriers | % of total |
|---|-----------------|------------|
| Strictly department barriers                    | 13              | 47         |
| Lack of Equipment                               | 7               | 25         |
| Lack of Adequate Teaching Force                 | 3               | 11—        |
| Lack of Sufficient Rooms                        | 3               | 11—        |
| Lack of Practice Teachers                       | 1               | 3—         |
| No time for Consultation with practice teachers | 1               | 3+         |
| Total number of barriers                        | 28              | 100        |

### Barriers to Realizing Functions of Elementary Training School.

In analyzing the responses of the faculty to "the chief barriers," as was the case with regard to "the functions of departments," one finds that the teachers in the elementary training school took a much more professional attitude than did the teachers of the Industrial High School. The former group seems to realize more clearly that the task is one of training teachers.

In order to show the nature of the responses of the training school teachers to the question of "chief barriers," there are quoted below the responses from the Director and two of the teachers.

1. Lack of scientific organization of the Training School as a whole and little if any unification of effort. Lack of room and equipment for taking care of the present number of student teachers.

2. The chief barriers to realizing the department's function are:

- a. The conditions under which we are working.
- b. Too many student teachers.
- c. The lack of a well-developed system of work.
- d. Lack of a systematic plan of college and training school courses preceding the course in teaching.
- e. Lack of a definite and fully developed course of study for the pupils in the grades.

f. A poorly arranged building for a Training School.

3. The chief barriers to the accomplishments of these functions is the magnitude of the work to be done by a small force. Contributing factors are lack of room and proper equipment.

Those in authority are cognizant of these conditions and I understand that plans are now being made to change them.

As things are, the work attendant upon realizing any one of these functions would be sufficient to engage the time and energy of a larger force than ours. Model teaching demands broad knowledge of subject matter, of educational principles, of up-to-date methods, and of the needs of pupils, demands which have provided sufficient work for a large corps of teachers in Horace Mann and the Brooklyn Training School. Supervision with its attendant conferences is sufficient to occupy the time of one person,—even if we fall far short of spending the two hours of thought Dr. McMurry feels is required before we offer criticism of a lesson. Time will forbid that much opportunity be given for developing the third or experimental phase of our function, if we are to develop the Training School into a typical public school as we understand is now to be the object of our work.

The decision to make the Training School a typical public school in so far as possible removes a barrier which I have felt very keenly this year, namely, a lack of unity in the work because of the uncertainty in my mind as to the character of the work which would be approved. This lack of unity is apparent in other ways which the Director of the Training School is attempting to adjust gradually. We waste time for the student-teachers and ourselves, for instance, because we use different plan forms in different grades. There is a lack of close organization in our course of study and work begun in one grade is not carried on in the next oftentimes. Palmer method in writing, for example is given in the College, taught in one grade, and dropped in the next at the will of the training-teacher. This condition is true to some extent, at least, in more important subjects in the curriculum, notably literature, composition, and grammar. In this subject not only do methods of work differ, but ideas regarding the purpose, the immediate ends to be obtained, etc., will be found to be at variance.

Such changes as are necessary to better such conditions will of course take time and the co-operation of both Training School and College Departments.

It is too early for me to say what part the new program and changes

in methods of training the students for teaching will play in realizing these functions; but there are certain barriers to its successful fulfillment under present conditions which may be eliminated by an increased force and by closer co-operation between the Training School and College Departments, as I understand it to be the case.

The advantages of wider observation of the presentation of work and of actual teaching experience in various subjects has been mentioned and I trust I shall not be understood as being in opposition to the plan because I mention some points which appear to be disadvantageous under present conditions.

a. The plan calls for more work in a grade than can be done by one training teacher successfully. Long hours are necessitated when a teacher is asked to teach half of the time, supervise every recitation by a student teacher, write up criticisms of any worth, look over plans and hold conferences each day.

(b) Only a small number of students can be supervised under this plan as a supervisor can handle only two teachers during a fifty minute period and even then the one supervising the children's study must go unsupervised.

(c) The grades having twenty-five minute periods for recitation must require more than one college period of student's time if the training teacher is observed regularly. The student being required to teach twenty-five minutes, supervise twenty-five minutes, will of necessity have her observation and conference hours fall outside of one period.

(d) The presence of the training teacher throughout each lesson given by the student-teacher takes the responsibility of the disciplining from the student-teacher. In my experience, one of the difficult things to accomplish in training work is to secure a sense of responsibility for the conduct and progress of the class on the part of the student-teacher. The question arises in my mind as to whether this constant supervision will not increase this difficulty and will not cause a lack of initiative on the part of the student-teacher. Is it possible to eliminate altogether the trial and error method? Does not failure to get expected results sometimes arouse the ingenuity of the individual and cause quick thinking and consequent growth in a really competent girl? This I know is a dangerous policy or argument, unless it be limited, but, on the other hand, when shall the student-teacher begin to walk alone? I suppose this must be answered by the judgment of the training-teacher as is indicated by Mr. Hotchkiss's "Directions to Critic Teachers"; but can it be understood that when a teacher is thus left alone for a period that the training-teacher is not considered guilty of a misdemeanor by members of the College Faculty?

(e) The "sliding-program" does not consider the question of fatigue as related to the presentation of school subjects. Is this a matter worthy of note? Are we justified in giving any subject at any time on the program?

(f) It has been impossible for me to arrange to teach stated days for the student-teachers without violating what seemed to me to be the best interests of the work. If, for example, I decide to teach on Tuesday and Thursday each week, I often find that it would be of greater advantage to the teacher and the progress of the work that I should teach at another time as the work for Monday may need to be continued by drill exercises or in some other form, and may be done just as well by the practice-teacher while the new work for Wednesday may present difficulties which a larger experience may be able to meet more successfully. The plan of having certain classes taught throughout the term by the training-teacher cannot be used in my room as it would leave few periods for practice-work, and require more than one period of the student's



time. I feel that it would be unwise to drop our "special work" in order that more practice periods may be provided, as that would be too much of a sacrifice of the pupil's interests for the sake of a program.

(g) The unity of the work in any subject must be preserved if the children are to suffer no loss in this kaleidoscopic succession of changes. Here, I perceive the danger of being forced to return to text book work and methods unless very detailed, topically-arranged courses of study are ready to place in the hands of student-teachers. Changing subjects every two or three weeks, a training-teacher finds it impossible to acquaint those in her charge with the necessary methods of work, subject matter and its immediate problems for the day, and anything like an adequate conception of the work as a whole,—its foundation and its goal. We are very materially improving the character of the work by an insistence upon activity of the pupils; may we not have mental activity without physical demonstration of the fact? We certainly do not wish to lose the thought that the emotional and spiritual nature is to be trained. Is there no time in school for a child to listen? No time to reach out toward the things beyond his own powers of accomplishment?

What is the place of the cultivation of appreciation in this scheme of "sliding program," and this strong emphasis upon "pupil activity"? Shall one keep always the daily bread of one's own handmaking, nor pause to smell the hyacinths beyond his reach?

TABLE III.

Summary of Barriers as Given by Elementary Training School Teachers.  
(Total Number of Teachers 9)

| Barriers   | No. of Teachers |
|--|-----------------|
| 1. Too heavy load  | 6               |
| 2. Inadequate rooms and equipment                              | 4               |
| 3. Too many student teachers                                   | 3               |
| 4. Indefinite and conflicting instructions                     | 2               |
| 5. No time for study   | 2               |
| 6. Lack of organization  | 2               |
| 7. No coordination of College study and teaching               | 2               |
| 8. No course of study  | 1               |
| 9. Lack of recognition of function                             | 1               |
| 10. Two years time inadequate                                  | 1               |
| 11. Over-emphasis on measurable results                        | 1               |
| 12. Inadequate recognition of the peculiar conditions existing | 1               |

There are real barriers to the development of the Department of County Schools. There has been great difficulty in securing the services of competent teachers in the demonstration schools and in retaining them for any considerable length of time. As the director suggests, probably an increase in salary might help to relieve this situation. It would seem that the College could well afford to develop this department to a much larger degree than it is being developed at the present time. More than 36 teachers should have preparation for the rural schools of Colorado each year, when 3000 are needed. Of course, a much larger number (245) than 36 is receiving some instruction along rural lines in the institution. But in order to be of greatest service, there should be at least one assistant, so that the director could get out over the state and meet the demands in the field more directly than is possible at present.

The policy of promoting—if such it may be called—teachers from the high school into college work, is detrimental to the high school faculty. Ordinarily there should be some difference in training and experience of the two classes, and persons especially valuable as high school instructors should not be changed to the College, and it goes with-

out saying that teachers in the high school who are not satisfactory should not be promoted to college positions. In fact the change from the high school to the college should not be considered a promotion, necessarily, but such will be the case so long as present conditions—poorer salaries, and much less preparation for high school instructors (see next chapter)—exist.

Without doubt, both the high school and the elementary training school are seriously handicapped because of lack of room and equipment. This is particularly true with regard to the high school. Six recitation rooms, an office and a small assembly room are indeed close quarters for 341 live high school youngsters. The elementary school with thirteen rooms, offices, and a good assembly room on the first and second floors, with play rooms and storage rooms, lockers, etc., in the basement, is furnished with much better facilities for its 347 pupils. Although more room is needed and the arrangement is not the most satisfactory for training facilities, many teacher training institutions do not have nearly such satisfactory conditions. When the west wing of the training school building is completed, both the high school and training school will be housed in this one building comfortably. This arrangement will be much more satisfactory for both the high school and the college as at present the high school is housed in the Administration building, where the offices are located and many College recitations take place.

Many of the barriers mentioned by the Elementary training teachers will be discussed in detail in following pages in connection with organization, administration, and supervision of teacher training. Furthermore the last teacher quoted on "Barriers" had much to say on organization which the reader will do well to keep in mind in connection with the following chapter.

#### IV. ORGANIZATION.

The function of any institution should determine, largely, its equipment and its organization. The function of the Training School, then, if this function is conscious to those in charge, should be the determining factor in its equipment and organization. Naturally the amount of money available for teacher-training facilities, must be taken into consideration; but on the other hand, the money available will be determined largely by the function of the training school as realized by the administration.

Even though administrators may realize the proper function of the training school and have unlimited resources, it is seldom possible to secure the ideal organization advocated by leading authorities today. This organization calls for the use of local public schools.

Wilson says "The most satisfactory arrangement for training-school purposes is probably (1) a school on the Normal school grounds and completely under the control of the Normal school where demonstration teaching, observation, preliminary participation and first practice teaching may be done, together with such educational experimentation as can be combined with these activities; this (2) supplemented by training facilities in public schools. Either one without the other is unsatisfactory. In schools making no use of public schools for training purposes, student-teachers are inadequately prepared to meet the school room conditions of the public schools which are not duplicated in the practice school organized primarily for purposes of practice teaching." (1)

In small towns, some arrangement, whereby all the local public schools may be available for training-school purposes under the direct control of the training department of the Normal school is probably most satisfactory. This arrangement is followed in several places. (2) In some cases the schools are maintained jointly by the Normal School and the local community. (3) The Director of the training school (4) or the professor of education (5) may be made city superintendent of the schools.

"In larger towns and cities, the training school may well be a ward or district school of the public school system." (6)

It is interesting to note that "Of seventy five schools for which facts could be ascertained, forty-two have practice schools established and operated wholly under Normal School authority; nine use only city or village schools for observation and practice; twenty-four have practice or model schools under the control of the Normal School and also use public schools under cooperative management of Normal School and local authorities. In six of these twenty-four cases, the school wholly controlled by the Normal School is used as a school for observation and for demonstrational teaching with but little student teaching." (7)

Although most authorities agree that the use of at least a part of the local public school system for teacher training is mutually advantageous to the public schools and the teacher-training institution involved, it is evident from the statement above, that such arrangement is by no means common. Sometimes it is impossible to come to any agreement and often if it is not possible to make a satisfactory arrangement with public school officials for the use of the schools for teacher training. These officers fail to realize "that student teachers—will have had, before doing any teaching in the public schools, more preparation and experience than have eight out of ten of the persons who now enter the teaching profession each year"; "that the normal school will supplement local funds available for teachers' salaries" and thus secure "more expert teachers than the community could hope otherwise to afford";

"that the work of the schools will be supervised with a care which the community alone could not provide for." (8)

Sometimes, too, the administrators in Teachers Colleges do not appreciate the importance of making some arrangement with the public schools, and consequently after failing to win the support of the community at first, do not make the attempt again.

Colorado State Teachers College, so far as can be learned, has never made an attempt to secure permission to use the public schools for teacher training. For years, the training school afforded opportunity for practice teaching to the comparatively small number of teachers demanding such training. Consequently, all training, including observation, except that in preparation for the rural schools, has been secured in the Elementary training school and the Industrial High School, both wholly under the control of the College.

There are in the college, then, really three departments for teacher training, the Industrial High School enrolling 341 students, the Elementary Training School with an enrollment of 347, and the Rural Demonstration Schools with 204 pupils. Each of these (1917-18) are under separate principals, known as Principal of the High School, Principal or Director of the Elementary School and Director of County Schools. If there is any correlation of activities of these Departments, it is not planned in the organization. It may be further stated in this general statement of organization that of the above principals and directors, only the Director of County Schools is listed as a member of the Department of Education and giving courses in that department. During the Summer Quarter, the Director of the Elementary School has given a course in the Department of Education, but a majority of the courses have been given under the head "Training School." (8)

### The Rural Schools Department

The Director of County Schools Administration has given the following outline of the organization of the Department of County Schools:

#### A. Rural Demonstration Schools.

1. Four one-teacher country schools near the College are being used very successfully for training teachers for rural and village schools.

2. There is a teacher's cottage for each school, built upon the grounds and furnished by the school district at a total cost of approximately \$1,200.

3. The student-helper spends four weeks in these schools, lives with the regular teacher, and shares the expense of living. The cost to her is \$16 per month. Four hours' credit is given for this work—a total of 120 hours' work.

4. All students in their senior year who anticipate teaching in the country are required to take their first term of practice in the Training School and the second term in the Demonstration School. A student who desires to specialize in rural education may elect a second term in the Demonstration School.

5. These schools have been in operation during the past year and a half and have provided, each year, training for 36 prospective teachers in their senior year. The student-helper is to act as an assistant or helper to the regular teacher and to assume such regular duties of a teacher as her capabilities warrant.

6. The school board, employing a regular teacher for a demonstration school in cooperation with the College, pays a minimum salary of \$70 per month, for nine months. At this time none of the schools pay less than \$75 per month.

7. The Teachers College supplements this salary of \$70 per month with a minimum of \$10 per month for nine months in the

year, according to the necessities of the individual case. One teacher is now receiving \$15 per month from the College.

8. The Teachers College is granted in view of its supplementing the teacher's salary, the privilege of using these country schools for observation purposes and the training of teachers for the country schools of the state.

9. Supervision—The Demonstration Schools are under the direction of the regular teacher, the school board, the county superintendent of schools, and the Department of County Schools. The director of the County Schools Department assumes direct and active supervision.

10. The Departments of Agriculture, Manual Training, Music, and Domestic Science are giving weekly lessons in their respective lines in these schools in order to vitalize and motivate the usual subjects taught.

11. Student teachers are rated at the end of four weeks' training in the Demonstration Schools by the regular teacher and the Director of County Schools, upon the following general points, each having from six to eight specific ratings:

- |                                   |       |            |
|-----------------------------------|-------|------------|
| a. Physical and Native Efficiency | ----- | 130 units. |
| b. Measure of Instruction         | ----- | 130 units. |
| c. Preparatory Efficiency         | ----- | 130 units. |
| d. Acquired Efficiency            | ----- | 110 units. |

The rating system tends to intensify effort and encourage a definiteness of purpose and aim which should characterize the work of the rural teacher especially.

B. Colorado Rural Club:

1. Function—

a. To further the interests of present and prospective teachers in third class districts of Colorado.

b. To develop a leadership that will function in the lives of children and parents of rural communities,

c. To so direct the club activities that its members will be capable of initiating rural social progress and education through the school,—to the end that country life may be made adequately satisfying.

d. To keep alive the interest necessary to solve a most difficult problem in a comparatively new and untried field.

C. County School Exchange:

1. Function—

a. To disseminate the activities of the department as a new field of endeavor.

b. To publish short articles of interest to rural teachers which are pertinent to this line of work.

c. To learn through correspondence with county superintendents about the best work that is being done by rural teachers in the various counties and to receive the written account of this work for publication.

D. Course of Study.

1. Description—

- |  |        |
|--|--------|
| a. Rural Seminar (Rural School Problems)       | 2 hrs. |
| b. County School Methods                       | 3 hrs. |
| c. Administration of Rural and Village Schools | 3 hrs. |
| d. Rural Education                             | 3 hrs. |
| e. Rural Sociology                             | 3 hrs. |
| f. Rural School Curriculum and the Community   | 3 hrs. |
| g. Observation (1) in West Side School         | 4 hrs. |
| h. Teaching in Rural Demonstration Schools     | 4 hrs. |
| i. Observation (2) in Demonstration Schools    | 1 hr.  |
| j. Public School Subjects                      |        |

## E. Faculty:

1. Director of County schools—
  - a. Teaches the subjects indicated under Course of Study—  
Enrolled last year, 245.
  - b. Miss Salberg, Ashton School 38 pupils
  - c. Mrs. Hunt, Hazelton School 48 pupils
  - d. Miss Riley, Bracewell School 62 pupils
  - e. Mrs. Reynolds, New Liberty School 56 pupils

### Industrial High School

The organization of the Industrial High School is given in the State High School of Industrial Arts bulletin in the following words:

"The State High School of Industrial Arts is organized on the departmental plan.

"Classes are grouped in such a way that intellectual progress is not broken when a given subject is finished, but the student is able to take up another subject in the same department which simply gives another phase of the theme contained in the course which has been completed. A student is thus able to study English for four years, and realize at the end of that time that every course taken has contributed something to the great central purpose of giving the individual a mastery of the English language and literature."

Following this there are four other paragraphs on the "Department of History," "the tremendous scientific awakening," etc., one of which follows:

"The great pedagogical principle of unity, which is illustrated in the paragraphs preceding this one, is just as important in mathematics, the languages, and vocational subjects as in English and history and science."

"There are ten distinct courses of study (curricula) included in the curriculum (program of studies) of the State School of Industrial Arts. They are as follows:

1. Teachers' Course.
2. Practical Arts Courses.
  - (a) Commercial Course.
  - (b) Course in Home Economics.
  - (c) Manual Training Course.
  - (d) Course in Agriculture.
3. Ungraded School for Adults.
4. School of Reviews.
5. Extension Course.
6. College Preparatory Course.
7. Short Course.

"In order that those who are interested may know the purpose and content of each, a brief description of these courses of study is included in this bulletin.

"1. Teachers' Course.—The function of Colorado State Teachers College is to train teachers. Its mission is to train teachers for every type of school—the district school, the city school, and the high school. Its duty is to help all who desire to teach.

"———Today a boy or girl can come directly from the eighth grade to the Colorado Teachers College and enter the Teaching Department of the State High School of Industrial Arts. This is a course established especially for those who are planning to become teachers."

"———Students need the larger vision and the deeper insight into the principles of teaching which a more thorough study of pedagogy, psychology, sociology and biology will give them. Graduates are therefore urged to remain and complete the two-year college course, thus securing both the more thorough preparation and a Colorado life diploma." (9)

The other "Courses" mentioned above are described in a similar man-

ner to that of the Teachers' Course. From all this one secures little on the organization of the school.

Under the heading "Faculty" the following statement is made:

"The State High School of Industrial Arts is organized in accordance with the Departmental plan. At the head of each department is a man or woman who has been selected because of special fitness for the work of that department. The fact that substantial salaries are paid enables the Trustees of the College to select individuals who have had unusual training, and whose success has been demonstrated in other fields. The aim of those whose duty it is to select members of the faculty is to secure as departmental heads men and women whose scholarship, ideals, and devotion to duty, will make for the highest degree of excellence in the school." (10)

A number of high school subjects—Advanced Algebra, Trigonometry, Physiography, Biology, Agriculture, Physics, Music, Printing, Mechanical Drawing, Manual Training, Sewing, Cooking, and Art—are taught by members of the college faculty.

One must conclude from this discussion of the organization of the High School that the "secondary" function, namely, "The Industrial High School acts as a feeder for Teachers College" rather than the "primary" function "to train that group of teachers who expect to enter the field of secondary education" is most emphasized at present.

### The Elementary Training School .

The principal of the Elementary Training School describes the organization in the following way:

"The organization consists of:

1. A typical elementary school system composed of one elementary school unit, including kindergarten and the eight secondary grades.
2. Nine training teachers.
3. The heads of the College departments.
4. Director of the Training School.
5. President of the College."

There is also a student assistant for each training teacher. This assistant is usually an older, more experienced student, or one who has shown some special ability in teaching in the grade in which she is assistant. These assistants spend two hours a day in their respective rooms.

The following responses from other members of the Elementary Training School faculty on the "organization" give additional information thus:

"In most of the grades the pupils are divided into two sections, the one reciting while the other studies. This is done in order to (1) give the critic teacher an opportunity to do part of the teaching while the student teacher observes this teaching, (2) give the critic teacher an opportunity to give close supervision while the student teacher is teaching."

"The work in each room in its ideal arrangement aims to give each student practice teaching every day; observation every day; criticism of their teaching, and conference on plans every day. This program further aims to enlarge the teaching experience by changing the subject taught by each teacher from four to five times during a Quarter; such a "sliding program," as it is called, giving a student an opportunity for observation of the most important school subjects and some ideas regarding the presentation of the same."

Since a large majority of the teachers trained in this institution receive their student-teaching in the Elementary Training School, a more detailed discussion of this school will be undertaken. For convenience

the topics mentioned above by the principal of the Elementary School will be discussed, but in reversed order, i. e.

- (1) The President of the College.
- (2) The Director of the Training School.
- (3) The heads of the College departments.
- (4) The nine training teachers.
- (5) The school itself—"a typical elementary school."

#### A. The President of the College.

The President of the College should be especially interested in the Training School when he considers it "the very heart of the institution." President Crabbe has taken a keen interest in the organization and policies of the teacher training agencies in Colorado State Teachers College. He has made an effort to impress his faculty with the idea that the training school is the "heart of the institution" and that "without it there can be no real satisfactory training of teachers." In a number of faculty meetings the proper place of the training school in the college has been discussed.

The following communication on "What a Great Training School Ought To Be" gives the President's idea of an ideal organization for a "great training school."

#### A SUGGESTED ORGANIZATION FOR A TRAINING SCHOOL

a. A school for children, covering all grades from Kindergarten to and including high school. Its function is to produce the finest type of City Public School

#### PLUS

better teachers; a better curriculum which is to be definite but flexible; a better daily program, definite but flexible; most modern methods; modern equipment; highest ideals; immediate advice and expert counsel with College Professors; rational research work and sane experimentation that may be without injury to pupils.

Ninety per cent of our graduates go out from the College to teach in Public Schools. Our Business is to prepare them for this life work.

This school for children is the foundation of all of the work of the Training School and must be supreme in organization, plans, policy, method, etc. The other departments of the Training School must be subordinate to this department. The work of the children must never suffer because of the work in observation and student-teaching. This does not mean that the work in observation and student-teaching needs to be inferior. Rather, if the regular work with the children be superior, the work of the other departments of the school will be superior.

#### b. A School of Observation.

1. A term of observation of expert teaching done by the regular training teacher should be required of all students during their first year in College..

2. Two more terms of observation of expert teaching done by the regular training teacher should be required in the second year of the College, in connection with the students' practice teaching.

#### c. A School of Practice.

1. Certain professional (education) subjects should be demanded as a prerequisite to student-teaching.

2. A Methods Course to be selected by student and Director of the Training School should be required of all student-teachers.

3. Two terms of student-teaching should be required in the second year of the College.

#### Remarks

a. A definite yet flexible daily program for each grade must be followed, particularly noting educational values. A sliding pro-



gram is desirable in order to accommodate students in classes of observation.

b. A definite yet flexible daily program of observation and student-teaching for each student-teacher must be followed.

c. In general, about 50 per cent of all teaching should be done by the regular training teacher for two special reasons:

1. To give observers an opportunity to see only expert teaching.

2. To keep the children's regular work up to standard.

d. Only a limited number of student-teachers can be accommodated in each grade. This number is largely fixed by the school program as noted in (a) above and the remark noted in (c) above.

e. Student-teachers should teach more than a single subject—preferably three or four subjects; these subjects should be enlarged to cover the entire curriculum when feasible and practicable.

### B. The Director of the Training School.

In this same communication the President says, "The Director of the Training School should be the biggest man among the members of the Faculty in scholarly attainments, experience, tact, and character."

The importance of adequate preparation and of a long tenure of office for the Director of the Training School can hardly be overemphasized. Judd and Parker have emphasized qualifications and tenure of office in the following words: "The director of the training school is the most important officer in the normal school excepting the president. He should be thoroughly informed concerning all phases of elementary school work—that is, he should be able to make a good detailed course of study for all subjects in all grades and should have a good critical judgment in the choice of methods. He should have broad training in education and be qualified to teach most of the courses in the department of education. He should have unusual administrative ability, including both force and tact, in order that he might ably assist the president in securing efficient cooperation by all members of the faculty in training prospective teachers for the real concrete detailed tasks which they will undertake when they begin to teach.

"If he is such a competent person as here described, he should be given full charge of the training school and of the department of education (including psychology), subject only to the supervision of the president. In view of the importance of his position, if he is thoroughly competent every effort should be made to keep him for many years of service.

"Hence his salary may justly be 50 per cent larger than that of any other instructor in the faculty, since the loss of a competent departmental teacher is not one-tenth as serious in the continuous efficient conduct of the training of teachers in the normal school as the loss of a competent director of the training school." (11)

During the present administration an effort has been made to secure the services of such an expert as is described above for the position of Training School Director. The salary of the Director of the Training School is as large as that of any other member of the faculty (1917-18) and is equalled only by the salaries of two deans. The difficulty in this institution is that the qualifications for this office are so high and the available funds so limited that it is a difficult task to retain for any considerable length of time the men secured. Consequently, the directors have had difficulty in securing the wholehearted support of the training school faculty; and it has been a much greater problem to secure the hearty cooperation of other members of the faculty.

### C. Heads of Departments and Faculty Cooperation.

To what extent do the activities of your department cooperate with the activities of other departments? To what extent should they be cooperative?

Authorities on teacher training have said that "normal school teachers may properly be expected to participate in some very active way in the work of the training department," (12) and that there is great need for close cooperation of "all the work of the normal school with the training school." (13) Still one finds in these same writings, "many difficulties in the way," "each individual supervisor is essentially a law unto himself," "the general lack of cooperation," etc. Only three of the forty-six officers from whom Wilson had replies, seemed to think the problem of cooperation had been satisfactorily solved in their institutions and these three were probably fooling themselves.

There are doubtless numerous good reasons why the Training School should be made the "pivot" of a teacher training institution; but there are also some causes for the lack of such an attitude on the part of members of the regular faculty. The unequal pay of the training school faculty and that of the regular normal school is naturally a deep gulf to cooperation. Often the experience and lack of training on the part of the faculty of the training school and the training and lack of experience perhaps on the part of the regular faculty, causes further friction. Sometimes the practitioner finds that theories are being taught which do not harmonize with her beliefs; and often those teaching the theories have no confidence in the theories and practices of the training teachers.

Certainly the blame for lack of cooperation cannot be easily placed on one or on a few individuals; but surely a large part of the blame can be placed upon the individuals who have to do with the organization of the training school. One ordinarily visits a home after the host or hostess has visited him; persons call on others after they have been called upon or invited to call. It seems that, so long as the organization remains as it is at present, the first step toward cooperation should come by call or invitation from the training school faculty. The organization, probably should be changed, however.

"The desired interlinking of all normal school departments with the training school is certainly not to be realized by turning over the practice teaching to the control either of the general normal school faculty or of a committee representing the various academic departments. The supervisory staff, (however), should include many, if not most, of the members of the so-called academic departments, and the entire group (which includes the director of the Training School, an expert administrator, and a body of 'carefully selected and specifically trained critics') should form what might be termed a training-school 'cabinet.' This body should legislate upon all matters concerning the organization of the training school curriculum and questions of educational policy; the superintendent or director, as the officer in whom administrative responsibility is lodged, should have authority to make decisions upon all matters of administration, with the provision that any member of the cabinet may appeal from his decisions to a higher administrative authority.

"—The chief difficulty in carrying out this plan under present conditions is serious but not insurmountable. It would require that appointments to all important positions in academic departments be limited to persons who are qualified by personality, experience, and training to participate in the responsibilities that it is proposed to delegate to the members of the practice school cabinet. It would mean in other words, that there would be but a very subordinate place in the normal school organization, or none at all, for the teacher who is merely a specialist in subject matter.

"Needless to say the relationship between the department of education and the training department should be particularly close and intimate, and to this end it is advisable, we believe, to combine the headship of the department of education and the directorship of the training department in one and the same person. The other members of the staff in education should also have definite responsibilities in the administration and supervision of the training school to the end that every class in educational theory may be in charge of a teacher who is in daily touch with the actual problems of teaching and management in an elementary or a secondary school." (14)

Some authors advocate that members of the normal school faculty should "teach children daily for at least a good part of each year," and that "members of the training school staff should take part in the teaching of normal school classes." (15)

Wilson (16) had returns from forty-three schools in twenty-six different states on types of cooperation between Normal departments and training departments. Here is a summary of these types in the forty-three schools:

|   | Schools so reporting |
|---|----------------------|
| 1. Training School staff part of general normal school faculty for all purposes   | 23                   |
| 2. Training school supervisors, but not room teachers, part of normal school faculty for all purposes   | 5                    |
| 3. Entire training school staff part of normal school faculty only for consideration of matters of training school policy                         | 3                    |
| 4. Head of training department gives courses in department of education   | 35                   |
| 5. Principal of training school (a separate person from director of training) teaches classes in normal school                                    | 4                    |
| 6. Normal school teachers supervise practice  | 8                    |
| 7. Normal school teachers determine methods to be used in various subjects in training school   | 2                    |
| 8. Normal school teachers act as advisors to training school staff in some definite way   | 4                    |
| 9. Normal school teachers make course of study for training school, in whole or in part   | 7                    |
| 10. Normal school teachers teach demonstration lessons  | 6                    |
| 11. Normal school teachers of drawing, manual arts, domestic science and art, and physical education teach their subjects in training school also | 19                   |
| 12. Normal school teachers of other than special subjects mentioned above give instruction in training school                                     | 7                    |
| 13. Critic teachers give courses in normal school during regular terms  | 15                   |
| 14. Critic teachers give courses in normal school in summer session   | 6                    |
| 15. Standard tests are given in training school by members of normal school faculty   | 5                    |
| 16. Normal school teachers and critic teachers give joint courses in observation  | 11                   |
| 17. Teachers in normal school and training school visit one another's classes systematically  | 3                    |
| 18. Normal school instructors hold conferences with training school staff upon invitation   | 2                    |

There is a vast difference of opinion among educators as to what extent the above types of cooperation should or might be carried out. One believes that teachers in normal departments should teach children "daily for all or at least for a good part of each year" and that "Heads of departments should be supervisors in fact of their subjects in the

training school" while another says "this was found impossible and it was urged that special competent critic teachers be employed for supervision and criticism." In Platteville, Wisconsin, regular teachers of arithmetic, geography, English and history in the Normal School known as, "Consulting Supervisors," are assigned one hour a day to the training school. These special supervisors visit classes, talk and confer with student teachers, conduct model lessons and the like. (17)

Although one finds in Colorado State Teachers College the types of cooperation as represented in numbers 1, 4, 5, 6, 7, 9, 11, 13, 14, 15, 18, above, still there is much to be done along this line. In fact as has been shown elsewhere, "inter-departmental cooperation is mainly incidental or accidental." (18)

Four College departments mention cooperative relations with the training schools. One department mentions observation of Training School work as a privilege granted by the Training School. Three other College departments mention their willingness to cooperate with the training schools,—in terms, however, that suggest doubt of welcome, should they proffer their services. One department describes past cooperation which the "new organization of practice teaching renders impossible," but looks toward giving aid in making courses of study for the Elementary School. One remarks regretfully that there are no relations with the Training School except in way of making suggestions on the course of study.

Even less was said by Training School teachers than by members of the College faculty concerning cooperation. Only one of the teachers in the secondary school seems to appreciate the possible inter-relations of her department and other departments. This appreciation, too, seems to have come quite suddenly, probably after receiving the questionnaire. In an "N. B." this teacher says, "I wish to state very humbly that I realize the efficacy of more earnest cooperation which can come only through a clear vision, on my part, of the aims and methods of other departments."

The Elementary School teachers have less to report on this topic than on any other. It seems probable that theirs is too full, crowded, and hurried an existence to make it possible for them to seek cooperation. In replying, one teacher mentions three members of the faculty by name who "show great interest in" and gave "unlimited time and energy" to some special enterprise of that grade. Three other departments were mentioned as having "rendered valuable assistance."

The Director of the Training School has shown by the following communication that he desires the cooperation of other members of the faculty. Furthermore he called three meetings to which certain members of the faculty were invited to meet with him and his teachers to discuss problems especially vital to the Training School. The effort was discontinued after the first three meetings because it was found impossible to agree on certain fundamental principles.

The following letter shows the attempt made by the Director to secure cooperation:

## THE RELATION OF TRAINING SCHOOL AND COLLEGE

### Preliminary Suggestions by Director of Training School.

We desire to provide for the closest possible cooperation between the various departments of the College and the Training School. This can best be done through one common clearing house and the logical person to assume this responsibility is the Director of the Training School. With this end in view I feel that it is my place to take the initiative in asking for a conference with the heads of the various departments of the institution.

In my judgment there is urgent need for a reorganization of the curriculum for the Training School and I am certain that the heads of the departments

can render valuable assistance in making courses of study in the various subjects, which will meet the aims of the Training School.

Since class room instruction and the curriculum aim at the same result, the same standards used for judging the one should be used for judging the other. This calls for the very closest cooperation between the Training School and the heads of the various departments in the making of a new curriculum.

In taking up this problem I suggest the following order of procedure:

1. The Director of the Training School to take the initiative in calling on Heads of Departments for assistance.

2. The Director of the Training School to give to Heads of Departments a clear conception of standards to be observed in class room instruction in the Training School as a guide for the making of the curriculum. The curriculum to be the joint efforts of the Head of the Training School and Heads of Departments.

3. The Director of the Training School to assume the responsibility of organizing and supervising the teaching force in the Training School so as to put into operation the curriculum.

4. The Director of the Training School to keep heads of Departments informed from time to time as to the progress of their respective subjects.

5. While the Director of the Training School and the Heads of Departments may call upon their respective subordinates for their judgment and assistance, the final and ultimate responsibility shall rest jointly with the Head of the Training School and the Heads of the Departments.

We also desire that the Training School be used by the various departments of the college as an Educational Laboratory provided the best interests of the children and student teachers be observed. To this end we invite any department of the institution which wishes to make an experimental study of an educational problem, to present to the Director of the Training School a definite statement of the proposed problem with plans for carrying the work forward.

In any organization where so many different departments are represented, there is danger that no one will assume the responsibility for unifying the work as a whole. I believe this is one of the most important duties of the Director of the Training School. In order to do this most effectively he should have a hand in the making of the curriculum as well as in supervising the class room instruction where the subject matter of the course of study is presented to the children.

Approved by the President.

Even though most of the inter-departmental cooperation is "mainly incidental or accidental," and though comparatively little was said concerning cooperation between the Training School and other college departments, the fact remains that eleven of the eighteen types of cooperation given by Wilson are found in Colorado State Teachers College.

1. The entire Training School staff has always been a part of the general normal school faculty for all purposes. Training school teachers are given as much consideration as any members of the faculty in discussion or voting. (19)

4. Although, as has been indicated before, there is no Head of teacher training but three principals or directors, each of these have been scheduled for some course or courses in the department of education.

5. Training Teachers have always given courses in the College. Many of these have been scheduled under separate departments of the Elementary Training School, High School, and County Schools. Here are the courses offered for the year 1917-18.

- A. Appearing in the Year Book under the caption "Industrial High School."

### Courses Primarily Senior College

103. Student Teaching in the High School—Required of students preparing to be high school teachers. Four hours. Every Quarter.

- 105. Principles of High School Teaching. Four hours.
- 107. Advanced Course in High School Student Teaching. Four hrs.
- 109. High School Supervision. Hours to be arranged.

B. The Elementary Training School

**Courses Primarily Junior College.**

- 1. Observation and Methods. Required of all Junior College students. Four hours.
- 2. Teaching in the Elementary School. Required of all Junior College students. Four hours.
- 3. Elementary School Supervision. Hours as arranged with the training department.
- 5. Primary Methods. Required of students specializing in primary work. Four hours.
- 6. Primary Methods. Four hours.
- 7. Third and Fourth Grade Methods. Four hours.
- 8. Fifth and Sixth Grade Methods. Three hours.
- 9. Grammar Grade Methods. Three hours.
- 14. Construction work for Grades. Four hours.
- 31. Literature and Story Telling in the Kindergarten and Primary Grades. Three hours.
- 32. Construction in the Kindergarten and Primary Grades. Four hours.
- 33. Plays and Games for Kindergarten and Primary Children. Three hours.
- 37. The Kindergarten Program. Four hours.
- 39. The Relation of the Kindergarten and the Primary Grades. Three hours.

**Courses Primarily Senior College**

- 110. School Hygiene. Three hours.
- 111. The Use of Interest in Teaching. Three hours.
- 112. Selection and Use of Upper Grade Books. Three hours.
- 122. The Play Life of Children as a Basis of Education in the Kindergarten. Three hours.
- 123. Kindergarten materials. Four hours.
- 124. Kindergarten Conference. Four hours.

C. County Schools Department.

- 1. Teaching in Rural Demonstration Schools. Five hours.
- 2. Observation in Demonstration Schools. One hour.
- 6. County School Methods. Required for County Schools major. Three hours.
- 26. The Rural School and the Community. Required of County Schools majors. Three hours.

**Courses Primarily Senior College**

- 106. Rural Sociology. Three hours.
- 107. Rural Seminar. Two hours.
- 125. Administration of Rural and Village Schools. Three hours.
- 130. Rural Education. Three hours.
- 6-7-11. In some of the special departments such as music, art, manual arts, and the like, normal school teachers supervise practice and determine methods used. They also teach.
- 9. Not only do teachers of these special departments, but also teachers in arithmetic, geography, history, have something to say concerning the course of study in the training school. As will be shown

later, however, little has been done in a constructive way, recently, on the course of study.

13-14. Practically all of the critic teachers give courses in the normal school sometime during the regular year and a few give courses during the summer.

15. Standard tests, mental and educational, are given in the training school by members of the normal school faculty.

The members of the Department of Psychology describe very complete and useful services rendered to the Training School by way of examining children and studying "problem cases." Training Teachers do not mention this cooperation. Probably the cooperative relations, therefore, are actually greater than accounts from the faculty suggest.

It is not probable, however, that the right sort of conscious co-operation will come until public school experience is required of all teachers whether training school teachers or not; until Normal School training is required of all; until equal qualifications are required of training teachers and regular normal school faculty; and finally until no distinction is made between the training school and normal school faculty in salary. Probably, not until these things are realities in normal schools, will there be the spirit of true cooperation.

#### D. Training School Teachers.

As adequate training, long tenure, and salary are important to the director of the training school, so the success of the training teacher and of the training school is dependent upon these same factors in the training school teacher. If as Judd and Parker (20) suggest, "Every Normal-school graduate who has had the good fortune to teach for 100 hours under the careful supervision of a superior critic teacher has probably profited more in terms of efficiency from this experience than from any 1000 hours of departmental instruction in the normal school," then it behooves a College President to be careful in the selection of his training school force and to pay salaries necessary to secure the most "superior critic teacher."

It is interesting to compare the members of the normal school faculty with those of the secondary Training School and of the Elementary Training School as to scholastic preparation, type and amount of experience, salaries, teaching load, etc. Since Dr. J. D. Heilman, in his section of the Survey (21), has worked out tables and correlations of comparison along these lines, it seems well to incorporate in this survey a brief summary of his findings.

Dr. Heilman shows that the high school and the training school both are without men except in the case of the principals, a condition which has often been deplored but which is quite prevalent in most American public schools.

The training of the teachers in the College surpasses that of the teachers who work in either the training school or the high school. This difference is indicated by the following figures which give the average amount of training above the high school for each class:

|                         |            |
|-------------------------|------------|
| College Faculty         | 5.57 years |
| High School Faculty     | 3.90 years |
| Training School Faculty | 4.13 years |

Teachers of the college have had more public school experience; also, than those of the high school and the training school. The averages for the three groups are:

|                         |            |
|-------------------------|------------|
| College Faculty         | 6.09 years |
| High School Faculty     | 3.60 years |
| Training School Faculty | 4.81 years |

The teachers in the training school average about 3 years less teaching experience before entering the faculty here than the teachers in the college, and the high school teachers average from 4 to 5 years less. Because of the fact that a few of the training school teachers

have been in this institution for a great many years, the total teaching experience, at present, of the teachers in the training school and of the college teachers is practically the same. The teachers of the high school have not had quite half as much experience as either of the other two groups. Furthermore, practically the entire corps of teachers in the high school has changed recently.

It is evident from the material above that the teachers in the high school are not so well prepared for their work as either the teachers in the College or the training school. These teachers have had less training and less experience than either of the other groups, although most authorities agree that this adolescent period is as important as any through which the child passes during his public school experience.

Teachers in both the high school and the training school have had much less public school experience than the teachers of the college, although, it seems, that they should know much more about the public school problems, because of the nature of their task.

This more adequate training and experience on the part of the teachers of College classes would indicate that what was suggested earlier in this study—that the training school should not have and probably does not have a corner on good teaching in any teacher training institution—holds true in Colorado State Teachers College. If training and experience count for anything, then the teachers in the training school and more particularly those of the high school are seriously handicapped in comparison with the “regular” college faculty.

Still another comparison made in the former survey was that of salary. Three paragraphs will suffice to show this comparison.

“The median salary of the women who teach in the college is \$25 less than the median salary of the training school teachers, but their mean salary is about \$50 higher. If we look at Table II, we can see that the college women have more training than the women of the training school, but Table X shows that the training school teacher has more experience than the college teacher. The training school teachers also vary less in their training and probably less in their experience, and their salaries vary less.

“The median salary of the training school teachers is \$275 more than that of the high school teachers, but their experience far surpasses that of the high school teachers and their training is about the same. The variation in experience appears to be in accordance with the variation in salary.

“For the college teachers the median salary is \$900 more than for the high school and training school teachers. On account of differences in training and experience this much difference in salary and probably more is justifiable, but, as was pointed out before, the training and experience of the teachers in the high school and training school should be such as to merit just as high a salary as that received by the college teacher.”

Dr. Heilman further gives the mean total time devoted to college teaching, and other college work of three small groups engaged in similar school work. Here are his findings:

|                                     | Number | Mean Total Time |
|-------------------------------------|--------|-----------------|
| Deans, Directors and Principals     | 9      | 42.83           |
| Elementary Training School Teachers | 8      | 57.30           |
| High School Teachers                | 8      | 40.41           |

It is not difficult to see that the total time given to college work by the Elementary training teachers is considerably more than that of either of the other groups. But there are many things to be taken into consideration other than time spent in teaching and supervision, scholastic preparation, experience, salary, etc., in the selection of Training School teachers. Many items of qualification have to be considered.



## E. Training School Pupils.

There is some question as to whether the training school is a "typical elementary school system."

There are two distinct classes of pupils in the elementary training school. Because of the advantages of the kindergarten, industrial arts, special work in music, folk and aesthetic dancing and dramatic work, many of the well-to-do families send their children to the training school in preference to the Greeley public schools. Furthermore the children of the faculty attend the training school. During the year 1917-18 there were 30 children whose parents are faculty members, enrolled in the elementary training school.

On the other hand, because of the three quarter arrangement, the training school catches those children whose parents move about; because of the fact that text books are furnished and only a very small fee (50 cents or \$1.00) is charged, the children of many poor people attend the training school; and because of the fact that the Greeley public school has had in the past, in the Training School, a dumping ground for those below standard in mental ability, the school probably has had more than its reasonable share of these pupils.

The Director of the Training School in a communication to the President said:

"It has been the policy of the school to accept almost every pupil who made application for entering the training school. This has resulted in overcrowding certain grades; also many pupils of inferior mental type are entering almost every grade. Many of these pupils should be classified as special children and put in a room by themselves for special instruction. Again many of the children coming to us are from families that move about a great deal, and consequently are more or less retarded. About 40 per cent of the pupils now in the Training School are here for the first time. Many of the remaining 60 per cent have been here but one or two quarters."

It is well to remark here that the Director began a "black list" which contained the names of those pupils who were mentally retarded as well as those who had bad records of attendance and deportment.

Much has been said in the Carnegie Report of the "Spirit and Morale of Practice Schools" in Missouri. The authors report that "A serious handicap to the efficiency of a practice school is the difficulty of ensuring on the part of pupils a proper attitude toward the work of the school. Pupils are not always inclined to take the student-teacher seriously, and this means that the work which the student-teacher represents is not taken seriously. The problem is not insoluble, for some practice schools are characterized by a most commendable spirit of industry and cooperation. Among the state normal schools of Missouri, for example, Springfield furnished a striking illustration of efficiency in training-school organization from this point of view. But in some of the other institutions, conditions in the practice school at the time when the visits were made were little short of desperate." (22)

The report gives illustrations to show, "The pupils are especially disorderly"; "The student-teacher corrects a boy for whispering, and he responds by 'making a face' meantime continuing with his whispering"; "They whisper, talk, and tickle one another"; "There is a good deal of 'horse play' among the boys—such as slapping on the back followed by exaggerated expressions of pain from the one struck," etc., etc.

The difficulty is that such a situation may creep into a training school almost without the knowledge of the training school force. The student teacher must have a grade in teaching and tends "to hide or overlook the inattention and mischief of the pupils, trusting that the supervisors will not find out how unfortunate the conditions really are, —a policy in which he is often abetted by the pupils themselves, who

assume a righteous and industrious attitude while the supervisor is present, only to drop it when his back is turned." (23)

Although the situation in Greeley is not so bad as that quoted, there is a feeling among both student teachers and pupils that the student teacher does not have much authority. In a study made during the progress of the Survey (1917-18) statements were collected from students and pupils working in the training school. "No remark heard once **only** was used." Here are three statements taken—the first from a student-teacher, the other two from pupils in the training school.

"The student teacher has (in some cases) absolutely no responsibility for discipline, progress of children, subject matter or new methods. Simply an 'impartor of a bit of information.' Then the children are unmanageable when the training teacher is not present because they feel that the student-teacher does not have real authority.

"The student-teachers don't have any real 'say so' over us so we don't need to get our work."

"We always do the work for the training teacher but we don't have to for the student-teacher unless she tells on us."

It is indeed interesting to note how the attitude of the pupils and student-teachers, also, change with a change in the director. Furthermore there is an entirely different attitude in the different rooms depending largely, of course, upon the nature and attitude of the training teacher.

If the above is true,—and one may find any number of student-teachers who will testify to its truth,—then the organization should be of such a nature that both the President of the College and the Director of the Training School will visit the rooms often enough to sense the attitude and correct it where necessary. The training teacher, too, must be alert to the needs of pupils and of student-teachers, and be in such close touch with both that there will be the spirit of cooperation. No training teacher can afford to be unmindful of the attitude of her student teachers toward her. Any lack of consideration on her part will eventually react upon her in the form of discouraged, disheartened student teachers and a demoralized group of children.

#### F. The Course of Study

In his discussion of Organization, the Director of the Training School omitted what Judd and Parker mention as one of the four most important factors in the organization and conduct of practice teaching—"the detailed printed course of study of the training school." (24) It will be noted that several teachers in the training school, quoted above mentioned the absence of a well-defined program in the Training School in Colorado State Teachers College.

Judd and Parker justify their position in the following terms: "The importance of such a course of study in improving the efficiency of state and city school systems is generally recognized. In such systems the teaching of a single group of children in the regular subjects is usually done by one teacher for a year. If a detailed printed course of study is important in such cases, it is obviously of **much greater importance in a training school where a single group of children may have anywhere from 4 to 50 different teachers in the regular subjects during a year.** Apart from the efficiency of the training of the practice teachers, the welfare of the children demands some such definite guide for practice." (25)

The last printed matter on the subjects taught in the training school appeared in a "Hand Book of Practice for Training Teachers, Supervisors, and Student Teachers in the Training School" issued in 1916-17. In this "Hand-Book" are discussed:

- (1) Subjects and Their Aim
- (2) General Attitude on Subject Matter
- (3) Electives in the Elementary School

- (4) English and Reading
- (5) Physical Training
- (6) Spelling
- (7) Arithmetic
- (8) Writing
- (9) Geography and History
- (10) Hygiene
- (11) Woodwork and Mechanics
- (12) Sewing and Cooking
- (13) Modern Foreign Languages
- (14) Typewriting and Printing.
- (15) Music
- (16) Art
- (17) Nature Study and Agriculture

Merely the aim of, and importance attached to these subjects are discussed. This is indicated by the fact that the entire discussion of the above seventeen topics was given less than four pages in the "Hand Book." In order to show the nature of this discussion I quote four of the seventeen sections mentioned above:

### Electives in the Elementary School.

In making such subjects (vocational) elective we do not mean to allow the child to be free to choose and drop subjects at will. The following rules govern here:

1. A subject such as Spanish or Manual Training is assigned to a child only after a study of his needs, his purposes in life, and his special abilities.

2. The parents, the training teacher, and the child all have a voice in the choice of elective subjects.

3. A subject, when once elected, should be continued for the remainder of the elementary school course, and cannot be dropped before the end of the school year. In case a subject is dropped the reasons must be such that the training teacher and principal agree that it is best for the child to drop it. For illustration, if a girl elects sewing in the 5th grade, it is understood that she, her parents, and her teacher all think it wise for her to learn to sew. She should learn to sew well before she drops the subject. The elective is as much a serious part of the school work as the required subjects, and often it is more important.

#### Arithmetic

Accuracy and enough speed for practical purposes in the fundamentals are stressed. In addition, practical work in fractions, decimals, percentages, interest, taxes, partial payments, and mensuration is given. Bookkeeping and business arithmetic as an elective is given in the eighth grade. We are also considering algebra as an elective in the same grade.

#### Woodwork and Mechanics

Woodwork, one hour a day, is given from the fifth grade up. It is our aim to give the boy a technique as well as to have him acquire an interest in this kind of work.

Mechanics, electricity, wireless, etc., are given in the seventh and eighth grades one hour a day. A knowledge of the theory and a degree of technical skill may thus be acquired early and serve as a basis for life activities.

#### Music

Music is taught regularly in all the grades. The pupils are taught to read notes and memorize common songs and national airs. The elementary school has an orchestra and instruction in this work is given

free of charge to children who may be interested in the instruments.

The last somewhat detailed course of study for the training school was issued as a bulletin of the College in May 1915. (26) This bulletin contains ten illustrations and twenty-five pages of printed matter. The outline of the work by grades covers thirteen pages. I select Grade 4 to illustrate the nature of this outline.

#### Grade 4

**Arithmetic.**—Reading numbers to 1,000,000; multiplication by numbers of two or more figures; division of numbers by two and three figures, tables of measure, simple fractional processes; addition of mixed numbers having fractional endings 1-2, 1-4, 1-3, 1-6.

**Reading.**—Elson Primary School Reader, Book Four; Free and Treadwell, Book Four; Graded Classics, Book Four; Plutarch's Tales, Greeks; Plutarch's Tales, Romans; Four Old Greeks; Children's Classics in Dramatic Form; Kipling Reader; Alice of Wonderland; Water Babies; Docas, the Indian Boy; American Life and Adventure; Stories from American History; Seven Little Sisters; Each and All; Fifty Famous Stories; Robert Louis Stevenson Reader; Approved Selections for Fourth Year.

**Literature.**—Stories of the boyhood of Achilles; Greek myths and legends—Philemon and Baucis, Prometheus, Clytie, Daphne, Phaeton, and Golden Fleece.

Selections for memorizing: September; The Bluebird; Orphant Annie; The Raggedy Man; The Night Wind; The Wind and the Moon; The Birds of Killingsworth; The Corn Song.

**Composition.**—Reproduction of stories, paragraphs and dramatizations; original stories; accounts of personal experiences; of things collected of books read, and of home duties; keeping simple accounts, keeping a diary; drill in punctuation.

**Spelling.**—Lists of words selected from children's errors; lists based on scientific investigation of the vocabulary of the fourth grade children; simple rules for spelling.

**Writing.**—Each child's papers are graded by the Ayers' scale and are kept on file.

**Geography, Home.**—Geography of Greeley; Irrigation, potato industry, sugar beet industry, cattle and sheep industries, relation of county and city, relation of city to the rest of the United States.

**Geography, Foreign.**—The Aram; the Eskimo and Lapp; the African and Filipino; the Chinese and Japanese; the Indian of the Northwest, of the Southwest, of the prairies, of the Eastern woodlands; the foreigner in Weld County.

**Nature-Study.**—Acquaintance with the trees of the campus and home, close observation of the elm and spruce; landscape design; gardening; animal life of the locality; grasshopper, crickets, katydids, butterflies, moths, skippers, dragonflies.

**Music.**—Introduction of sharps and flats; unequally divided beats; interval work; pitch names and scale tones in all keys; dictation exercises; sight reading. Work is based on The New Education Music Course. Lessons interpreting to the children the best vocal and instrumental selections suited to them.

**Art.**—Drawings from Nature forms in full and foreshortened views; pose drawings from animals, birds and children in mass, illustrative work illustrating games, stories, and holiday events; designs for book covers, calendars, invitations, holiday cards and menu cards; clay modeling. Color and hues of color.

A teacher who has been in the system a number of years reports that some teachers use this old course, while the new teachers often use the course they have been using in the schools from which they came.

It may be mentioned here, that an excellent course in history was developed for the training school in 1911. It might be well to require all teachers to use this course until a better one is developed.

There is a general understanding as to what subjects are to be taught in each grade, but each teacher determines the content of these subjects except in the case of special subjects such as modern languages, home economics, music, physical education, etc. An instructor of these subjects in the College determines their content in the training school.

It has been suggested that greater opportunity is given children in the training school than in most public elementary schools for special work.

The following is the program for four of the special subjects in the training school for the Fall Quarter, 1917-18.

### TRAINING SCHOOL

December 11, 1917

#### PROGRAM FOR DOMESTIC SCIENCE AND MANUAL TRAINING

|                  | Monday   | Tuesday  | Wednesday | Thursday | Friday   |
|------------------|----------|----------|-----------|----------|----------|
| <b>7th Grade</b> |          |          |           |          |          |
| 11:30-12:10      |          |          |           |          |          |
| Girls—           | Sewing   | Sewing   | Sewing    | Cooking  | Cooking  |
| Boys—            | Man. Tr. | Man. Tr. | Man. Tr.  | Man. Tr. | Man. Tr. |
| <b>6th Grade</b> |          |          |           |          |          |
| 1:30-2:30        |          |          |           |          |          |
| Girls—           | Cooking  | Cooking  | Sewing    | Sewing   | Sewing   |
| Boys—            | Man. Tr. | Man. Tr. | Man. Tr.  | Man. Tr. | Man. Tr. |
| <b>5th Grade</b> |          |          |           |          |          |
| 2:30-3:30        |          |          |           |          |          |
| Girls—           | Sewing   | Sewing   | Sewing    | Sewing   | Sewing   |
| Boys—            | Sloyd    | Sloyd    | Sloyd     | Sloyd    | Sloyd    |
| <b>8th Grade</b> |          |          |           |          |          |
| 3:30-4:30        |          |          |           |          |          |
| Girls—           | Sewing   | Sewing   | Sewing    | Cooking  | Cooking  |
| Boys—            | Man. Tr. | Man. Tr. | Man. Tr.  | Man. Tr. | Man. Tr. |

#### PROGRAM FOR ART AND MUSIC

|                  | Monday | Tuesday | Wednesday | Thursday | Friday |
|------------------|--------|---------|-----------|----------|--------|
| <b>8th Grade</b> |        |         |           |          |        |
| 8:55-9:30        | Music  | Art     | Music     | Art      | Music  |
| <b>7th Grade</b> |        |         |           |          |        |
| 9:30-9:55        | Music  | Art     | Music     | Art      | Music  |
| <b>1st Grade</b> |        |         |           |          |        |
| 9:55-10:15       | Music  | Art     | Music     | Art      | Music  |
| <b>5th Grade</b> |        |         |           |          |        |
| 10:15-10:40      | Music  | Art     | Music     | Art      | Music  |
| <b>2nd Grade</b> |        |         |           |          |        |
| 10:40-11:00      | Music  | Art     | Music     | Art      | Music  |
| <b>3rd Grade</b> |        |         |           |          |        |
| 1:30-1:50        | Music  | Art     | Music     | Art      | Music  |
| <b>4th Grade</b> |        |         |           |          |        |
| 1:50-2:15        | Music  | Art     | Music     | Art      | Music  |
| <b>6th Grade</b> |        |         |           |          |        |
| 2:15-2:45        | Music  | Art     | Music     | Art      | Music  |

The modern languages as a subject in the elementary school have had a place for some time. In a letter from the Director of the Train-

ing School, one discovers the situation and policy in 1917-18.

"At the present time Spanish is taught in the eighth grade. French is taught in the first and third grades. There seems to be no policy as to languages in the Training School. I understand from talking with the critic teachers (the principal was new 1917-18) that it has been largely a matter of choice with individual training teachers. No other person seems to be responsible for the languages."

"It shall be my policy to permit no teacher to teach either of these subjects who is not recommended by Dr. D. (Head of Department of Romance Languages), and that the work shall be carried on under his supervision just as music, art, manual training and other special subjects are carried on under the direction of their respective departments. "Dr. D. and I have agreed that in our judgment there is little gain, if any, derived from work in either of these subjects in the Primary Grades. There is a question in our minds as to the grade in which these subjects should be introduced. Certainly not below the fourth or fifth grade. For the present we recommend that both French and Spanish be offered as an elective in the seventh and eighth grades, and that we will require all children in these grades to elect one or the other of these subjects and that the pupils, once having made a choice, be required to continue with that subject for two years, or until the eighth grade is completed."

The need of a long tenure for the Director of the Training School has been discussed. It should be mentioned again, however, in connection with the course of study. It is indeed interesting to note how each new director not knowing what has been done by his predecessor sets aside the work previously done, and puts the teaching force to work on a new course of study, and this in turn joins that "innumerable caravan" which has gone before.

It seems that heretofore the training teacher has had little to say with regard to the general policy of the training school but almost all to say concerning the work in her own room. There surely is need of a closer organization so that the director will consult his teachers on matters of policy, while, the teachers will be glad to have his advice on matters pertaining to their rooms, as well. Only through some such constructive plan, will there develop a carefully planned and organized course of study in the training school. Here is one of the greatest needs of the Training School of Colorado State Teachers College.

- (1) Wilson, L. M.—Tr. Departments in State Normal Schools. The Normal School Bulletin No. 66, Eastern Ill., Normal School, Charleston. p. 20-21
- (2) In New Hampshire, Albion, Idaho, etc.
- (3) Hays, Kans.
- (4) DeKalb, Ill.
- (5) Hays, Kans.
- (6) Prep. of Teachers for Amer. Pub. Schs. Carnegie Foundation for Advancement of Teaching. Bulletin 14, p. 193.
- (7) Wilson—P. 18.
- (8) Ibid P. 22.
- (9) Colorado State Teachers College Bulletin, Series 17, No. 3, June 1917, pp. 14-16.
- (10) Ibid P. 23.
- (11) Judd, C. H. and Parker, S. C.—Problems Involved in Standardizing State Schools—Bulletin, 1916, No. 12. Bureau of Education. pp 87-88.
- (12) Wilson—Training Schools in State Normal Schools in U. S. P. 51.
- (13) Carnegie Foundation Bulletin No. 14, P. 199.
- (14) Ibid—pp. 201-202.
- (15) Wilson—Tr. Depts. in State Normal Schools—51-52.
- (16) Ibid Pp. 53-54.
- (17) Ibid, Chap. IV. particularly pages 51, 52, 61.
- (18) Colorado State Teachers College Bulletin—Series XX, No. 5. p. 75. (The next paragraph is an almost direct quotation from this same page).
- (19) Numbers below refer to the numbers given by Wilson in his classification of types of cooperation, recently referred to. Only those numbers occur which represent the types of cooperation found in Colorado State Teachers College.
- (20) Judd and Parker—Problems Involved in Standardizing State Normal Schools. Bulletin 1916, No. 12. Bureau of Education, p. 73.
- (21) Colorado State Teachers College Bulletin, Series 20, No. 9. Pages 19, 25, 26, 27, 28, 29, 31, 32, 36, 37, are especially interesting along this line.
- (22) The Professional Preparation of Teachers for American Public Schools. The Carnegie Foundation for the Advancement of Teaching. Bul. 14, pp. 205-7.
- (23) Ibid Pages 207-208.
- (24) Bureau of Education, Bulletin 1916. Number 12. p. 87.
- (25) Ibid p. 89.
- (26) A Bulletin concerning The Elementary School—Series XV, No. 4.





## V. RECENT CHANGES AND NEEDED CHANGES IN THE ORGANIZATION OF TEACHER TRAINING IN COLORADO STATE TEACHERS COLLEGE AS INDICATED BY RETURNS FROM FACULTY.

List all the changes made in the last two years in either the organization of your department (including new courses framed, old courses abandoned or changed, stating in each case the reasons for the changes or abandonment and the method of accomplishing the changes, e. g., whether by cooperative effort or otherwise.)

### I. Changes in the Rural Demonstration Schools.

#### 1. Changes Recently made.

a. Observation 2 in Demonstration schools was added this year for the purpose of receiving the reaction of student-teachers who had spent one month in these schools, of correcting false impressions, offering constructive criticism of the skill gained and of the pedagogical fitness of methods used.

b. An agreement has been reached between the Training School and the County Schools Department to permit (or require?) all students who expect to teach in the country to elect one month's teaching out of the two terms required by the Training School, in the Rural Demonstration schools. If a student desires to specialize in Rural Education, she may elect a second month's practice.

#### 2. Changes Suggested.

a. All faculty members who contribute to the work of the department should be listed as a part of the faculty in Rural Education in order to coordinate the work properly.

b. The Department should have an assistant who knows the rural problem and who is able to do the regular class work in the absence of the Director. Three additional persons should be employed to take care of the rapidly growing extension activities in conjunction with the Department of Rural Education.

c. Teacher-training in the Demonstration schools should be upon the same basis in point of remuneration to regular teachers, adequate preparation of teachers and supervision as the Training School. There should be expert instruction for children whether they live in town, city, mountain, plain, or valley. If not, why not?

### II. Changes in Industrial High School.

As was true with regard to "Function" and "Barriers" so as to changes, most of the teachers in the secondary school responded as members of the departments of languages, history, etc., rather than as training teachers. Consequently only a few recent changes and needed changes are listed for the high school faculty. Some of the returns which are departmental in nature but have to do with the organization of teacher training are included in this report.

#### 1. Changes made in the last few years.

a. The addition of a fourth year to the high school. This seemed a wise plan and had been suggested by the President of the College, many members of the college faculty, and many of the leading school men of the state.

b. The addition of the fourth year made necessary the introduction of fourth year courses in English, history, science, mathematics, etc.

c. The Correlation of the College Preparatory course with a group of Practical Arts courses in such a way that the student is permitted to elect a group of subjects looking toward college entrance

or a group of subjects studied mainly as a preparation for the duties and responsibilities of life.

d. Improvement and further development of the Ungraded School for Adults as described in detail in the high school bulletin.

e. The Organization, in connection with the Extension Department, of high school extension courses.

f. Four years ago, I believe, there were no required courses in the high school; today there are many. The students are happier, and our credits are accepted in other schools.

g. Four years ago a student teacher taught every day; today she teaches, the first quarter, once a week but hands in two or more lesson plans. The second quarter she teaches twice a week and hands in two lesson plans, and the third quarter she teaches four times a week and hands in four lesson plans. This plan has done much toward improving the general tone of the school.

2. Changes needed according to responses from teachers.

a. The most important change pending in the organization of the high school department is the correlation and coordination of the present high school with a junior high school which is soon to be established in the institution.

b. Increased teaching force. (Mentioned by two teachers).

c. Enlarged teaching equipment. (Mentioned also by two teachers).

d. Only fourth year college students allowed to teach English in the high school. The student teacher must have had special work in English.

e. Cooperation with the College.

### III. Changes in the Elementary Training School.

The responses of the Elementary School Training teachers are arranged by teachers according to grade beginning with the kindergarten and ending with the director. First the changes made during the last two years are recorded and later suggested changes.

1. Changes made in the last two years.

A. Kindergarten.

(1). The kindergarten specials teach through the morning in kindergarten for one quarter rather than one period a day for two or three quarters. This gives them a clearer conception of the kindergarten as a whole and is better preparation for directing a kindergarten.

(2). In the kindergarten this year we are giving greater freedom of choice to the children in order to get their viewpoint and to stress individual development.

B. First Grade.

I can answer only for the changes this year.

(1). One of the most detrimental changes is the long hour of the morning session 8:50-11:50 with only an intermission of 15 minutes 10:15-10:30.

All children need more time during the best part of the day to live in "God's out of doors," enjoy our splendidly equipped playground, and use our magnificent athletic field.

(2). Eliminating of modern languages in the lower grades.

(3). School hours lengthened.

(4). Grading of student teachers in consultation with principal.

(5). Children excluded from the building until certain hours in morning and at noon.

(6). Training teachers on duty at 8:40 A. M. and 1:15 P. M. In other words all the duties of a public school teacher plus the training of teachers.

(7). Use of prescribed text book and a tendency toward page to page teaching.

(8). A revolving program in most grades. As far as I can discover, changes were not made cooperatively. The last might have been a partial exception.

C. Second Grade.

(1). The Training School has been reorganized. The school day is longer, the recess period shorter. Observation is substituted for much of the practice teaching which was previously done by the student teachers.

D. Third Grade.

(1). Hours in third grade, 8:50-12:10 and at present 15 minutes intermission. Hours afternoon, 1:30-3:15. Formerly 9-12, with 30 minutes intermission and 1:30-3:00. This change was not effected by cooperative effort.

(2). Music changed from 15 minutes daily to 20 minutes three times a week. Art changed from 30 minutes daily to 20 minutes twice a week.

(3). Student teachers receive 4 hours credit for 5 hours work, plus 1 hour conference once a week with either the training school director or his subordinates or both, plus conferences with director's subordinates concerning individual plans, teaching, etc.

This is contrary to "Regulations adopted and approved" College year 1917-18.

(4). Teaching requirements (of student teachers) reduced from 12 to 8 hours. Contrary to report of committee on primary work, and requirements listed in catalogue.

(5). Hours for training teachers lengthened—hours of other college teachers shortened. Why?

(6). Group teaching made prominent instead of individual instruction.

E. Fourth Grade.

I am a new teacher entering upon my work in September. At present the organization and the work of the departments are undergoing changes.

F. Fifth Grade.

Everything relating to the Training School is in the process of change and reorganization.

(1). The character of the observation work done by those taking Training School 1 has been changed.

(2). Effort to standardize the work of the teachers according to Dr. McMurry's Elementary School Standards, to give a basis for concerted effort on the part of the supervisor and the teacher in training, has been modified.

(3). The entire course of study is being reorganized with a view to more nearly conforming to the work of the public school in the larger cities.

(4). The organization of the work for practice teaching has been changed by the introduction of the "sliding program."

(5). Strong emphasis is being placed on "pupil activity." The emphasis, formerly, was placed upon making work functional. Frankly, the second idea under our necessarily artificial conditions was very much overworked.

(6). Great emphasis is being placed upon observation of the training teachers by the student teachers.

(7). Written criticisms of students' work is required of the training teachers.

G. Sixth Grade.

(1). Each training teacher has fewer practice teachers to supervise because direct and definite charge of all special subjects has been given to special teachers.

(2). Longer school session and shorter recess period (as mentioned by others).

(3). The most revolutionary change is the viewpoint and method which controls the organization of the training school. This is known as "A Sliding Daily Teaching Program" or orientation teaching within a grade. It calls for each student to teach every day, observe the training teacher teach every day and to have a set regular conference period with the training teacher every day. Then during the twelve weeks each student teacher is to teach within one grade four different subjects or at the end of each three weeks each teacher is assigned a new subject to work up and teach. "The subjects of the program are shifted each three weeks to work in with the girl's schedule e. g., arithmetic may be taught at 8:50-9:20 the first three weeks, at 10:30-11:00 the second three weeks, at 1:30-2:00 the third three weeks, and the last three weeks from 3:00-3:30. All other subjects are shifted likewise.

The other teachers reported they had not been here long enough to state changes which had taken place.

## 2. Changes needed as expressed by Elementary Training Teachers.

### A. Kindergarten.

(1). There should be more than one practice kindergarten.

(2). There should be more teachers in the department and they should have more time for research and study.

(3). There should be a greater incentive to experimental work.

(4). There should be less emphasis on meetings, reports, etc., and more on progressive training of children.

### B. First Grade.

(1). I would like to see the training school run on old time schedule, starting at 9 A. M. and with 40 minute recess period.

(2). Plan of work outlined early enough so some time might be had to organize according to it, before it is supposed to go into effect.

It would also facilitate matters to have these written, so the meaning might be clear and that they might be kept for future reference.

(3). A good comfortable lunch room where the children are not merely kept during lunch period, but which is conducted so children will really learn something—what to eat, how to eat it, appropriate games, etc.

(4). An opportunity to try out new ideas.

(5). Credit for teaching on the same basis as college classes. Training teachers' hours similar to those of instructors in the college.

### C. Second Grade.

In my opinion, our Training School would be a much stronger institution if our training teachers, especially those of the upper grades were not so over worked.

### D. Third Grade.

(1). Children of third grade age (7-9) should not be in school from 8:50-12:10 with only 15 minutes intermission.

(2). Student teachers should have value received for work done. Why not consult the training teachers on this point?

(3). Teaching requirements (of students) should be greater.

(4). Training teachers work should be made more intensive and not so extensive—less detail work and reports, time better organized.

(5). Housing facilities of training school should be improved.

(6). More consideration should be given to the individual child.

#### E. Fourth Grade.

(1). Need a well-developed and full course of study for each grade. A study of the best school systems of the United States should be made before working out a course for our own training school. There should be no gap between the work of the successive grades.

(2). The text books and supplementary books need to be revised. Proper and modern equipment should be put in.

(4). Revision of courses for prospective teachers.

The number of student teachers to each room should be limited so as to enable the training teacher to do half of the teaching and to supervise the daily work of each student teacher. Student teachers then observe only the training teacher.

(4). Observation and methods should precede teaching. Two terms of teaching should be required after the observation and methods courses have been completed. For critics and supervisors a third term of supervision with practical work under the direction of an expert in this work should form another course.

(5). All students should be given an opportunity to do some work in every department even in the departments of music and art.

#### F. Fifth Grade.

I believe that an organization such as I understand is being used in Los Angeles Normal school would be ideal for solving many of our difficulties. As I understand it, there are training teachers who are responsible for the progress of the pupils and the practice teachers; and supervisors of the different subjects who are responsible for the unity of the course in any given subject throughout the eight grades. This arrangement I think, would give one an opportunity to do one's particular bit well.

#### G. Sixth Grade.

While I am very much in sympathy with system and organization, emphasis should not be upon system for the sake of system. "Systems of writing," "systems of spelling," "systems of reading," et cetera have a tendency to choke; emphasis, it seems, should be upon growing needs, individual and group development based upon the functional viewpoint.

#### H. Seventh Grade.

(1). More system throughout the grades.

(2). Student teachers should teach in more than one grade. Primary teachers should have training in all the primary grades Grammar grade teachers should have training in all the upper grades. If they have this training more positions will be open to them.

#### I. Director.

I hope to bring about changes in the following directions: The Training School should approach more nearly to that type of schools in which our teachers will teach when they leave us; improved class-room instruction; a better planned curriculum which is to be definite but flexible; a systematic plan for observation, teaching, and conference on the part of student teachers; a better daily program, definite but flexible; a sliding program, providing opportunity for a wide range of subjects to be taught by student

teachers; about 50 per cent of the class-room teaching to be done by the training teachers at times when student teachers can be present for observation; the number of student teachers assigned to one training teacher to be limited to the number her program can accommodate; to make the training school a model school where the highest type of work is done; more modern methods of school organization; definite standards for judging class-room instruction; better socialization of class work; higher standards for the work of children in the class-room; the Director of the Training School should be more closely connected with College heads of departments for immediate advice and expert counsel; more rational research work, and sane experimentation without injury to pupils; a Junior High School should be provided at the earliest possible date.

Heretofore there had been little organization or supervision on the part of the Director and a great deal of individual initiative on the part of each training teacher. Under such organization or lack of organization, as would be the situation in any institution, a few teachers of the Training School have not taken their responsibility seriously. Under such circumstances, then, an administrator tends to go to the other extreme of being too severe and of condemning the entire teaching force for the "sins" of a few. This very thing has probably resulted in consequence of which the Training teachers are being over-worked, as they have indicated time and again in their replies to this questionnaire.

The Director in a communication to the President has expressed his policy with regard to the above situation. After showing that "the Training Teachers are carrying a far greater load than members of the faculty usually carry," with their "methods class the first hour in the morning, the highest type of class room work, (thru the day), together with the training of eight to twelve student teachers," he says:

"The impression has gone abroad in the past that our Training Teachers have shirked their responsibility by placing both classroom instruction and teacher's training in the hands of student teachers. In rectifying this, we should be careful not to overdo the matter in the opposite direction. My policy would be to deal harshly with the individual training teacher who shirks her responsibility rather than with the whole corps, thus working an injustice upon the teachers who have always been conscientious and should be exonerated from any charge that might come from general criticism growing out of a few individual cases."

In this connection the Director has certainly taken the proper attitude. It is a sign of weakness on the part of any administrator to quarrel with the entire group of teachers or students in order to coerce the few; or to demand of all teachers many details and increased requirements in order to reach the few who will not take responsibilities seriously, otherwise.

## VI. THE STUDENTS' CONTACT WITH AND ACTUAL PARTICIPATION IN THE TRAINING DEPARTMENT.

"One learns to do by doing" is a maxim as old as Pestalozzi. If one believes this maxim, it is likely he will also conclude that one learns to teach by teaching. It is well to remember, however, that if this principle be applied literally as stated, teaching in the rural school without supervision becomes as effective as to teach under the supervision of expert training teachers. Few persons interested in teacher training, whether training teachers or instructors in other departments will agree that this is true. The degree to which teachers believe that students learn to teach by teaching is a matter of difference of opinion nevertheless.

As has been inferred already, training teachers and other teachers in teacher-training institutions have erred materially in underestimating the value of the work of the other group. Often training teachers have felt that their work is the really important part of teacher-training preparation; they sometimes think that they are the only members of the faculty who have had practical teaching experience and that the theory courses are not of great value in—sometimes even detrimental to—the best preparation for teaching. They believe that one learns to teach only by teaching. On the other hand, teachers of "academic" courses believe that any one can teach if he has the knowledge, while the teacher of psychology, the principles of education, etc., may place too much emphasis upon "theory" and too little on "practice."

It is important that each of these groups understands the point of view of the other. Professor H. W. Nutt, (1) has given certain principles of methods which justify the work of the teacher of subject matter and principles of education, as well as the work of the training teacher in demanding observation, lesson plans and the like. The first principle "is that the supervisor and the teachers who work under his direction must possess common knowledge and hold common points of view," (2) if teaching under supervision is to be made a cooperative enterprise, as Professor Nutt suggests it should be. He says: "If the student-teacher, or the regular teacher, is lacking in knowledge of fundamental facts and principles, he cannot understand the suggestions of the supervisor." (3)

In discussing the second principle, "that one learns to teach by teaching" the author says "The first interpretation of this principle is that one learns not merely by doing but by correct doing. What, then, is the first step in correct doing? The psychological answer is that one takes the first step in correct doing when he goes through the mental performance of doing the act in anticipation of the actual performance of the act. This mental doing of the act is carried on first through the mastery of the theory or the principles involved in the correct doing of the particular act. The teacher who attempts to learn to teach by actual teaching acts, without a period of mental, imaginative teaching, has no standard or background against which to project the actual teaching performance; hence he has little opportunity for knowing when he is improving and when he is deteriorating.

"—On the other hand, the teacher who is constantly going through a warming up period of imaginative, mental doing of the teaching performance becomes saturated with the principles of correct doing, and can readily recognize how well the actual act of teaching measures up to the more perfect imaginative standard." (4)

The teacher who has taught before, and even he who has done this imaginary teaching, may have incorrect habits which must be broken up. Ordinarily the classes in principles of education, in methods, or even in actual observation of excellent teaching will fail to eliminate these errors. Only through teaching under direction can these incorrect habits be eliminated, probably. So one sees the justification of the various courses in subject matter, psychology, principles of education, etc., as

well as observation, demonstration teaching, and actual practice teaching. It should be understood in this connection, however, as has been mentioned before, that there is no place for a poor, ineffective teacher in a teacher-training institution regardless of what he is teaching. A student should have an opportunity to observe expert teaching in every class he has in College. It is needless to say then, as has been said before that the training school should not and does not have a "corner" on the good teaching in the institution. But it is well for persons who teach psychology, principles of education, principles of teaching, courses in methods, etc., to remember that they should be "living models" of the principles they teach. It is also well for them to remember that the study of these "theory" courses may have either no influence or an unfortunate influence upon later practice. The influence of such courses depends largely upon both material and the manner of presentation.

### Need for Study of Relative Value of Courses in Teacher Training.

In this connection, it would be well for both teachers in the training school and instructors in the College proper to make such studies as have been made by Merriam (5), and the survey committees for the survey of the Wisconsin Normal Schools (6), and the Missouri Normal Schools (7). Merriam shows that there is a higher correlation between class standing in practice teaching and success in teaching than between success in teaching and any other normal school course, and that psychology stands next to practice teaching in this correlation. In the survey of the Wisconsin Normal Schools, an effort was made to reveal the extent to which "psychology and pedagogy as taught in the normal department helped students in their teaching in the training school." "Of the sixty persons replying to the question—

"18.3 per cent state that psychology and pedagogy help the students in their practice teaching.

"66.6 per cent state that these subjects do not help them or that the help is slight.

"15.1 per cent state that they are unable to judge."

The committee which surveyed the Missouri Normal Schools received responses from one hundred sixty three "experienced Missouri teachers as to elements in their preparation to which they were chiefly indebted."

"In the following account the wording of the questionnaire is retained, but the order of topics is that of the choice expressed in the replies.

"I. Which kind of preparation has contributed more to your success as a teacher:

1. Preparation in various ways in the light of experience (91),

or

2. Training received in Normal School or College before taking a regular position (63).

Note: On this question the decision in favor of the first was reversed by the university graduates (29) considered alone to a majority of one in favor of the second.

"II. Which group of courses has been of greater benefit to you:

1. Academic courses in subject matter to be taught (95), or

2. Professional courses in theory, history, and practice of education (63).

"III. Number the following courses in the order of their practical helpfulness in your present work.

|   | Ranking    |
|---|------------|
| 1. Courses in special method in subjects you are teaching | -----1.805 |
| 2. Courses in general method or principles of teaching    | -----1.644 |
| 3. Courses in psychology                                  | -----1.591 |
| 4. Practice Teaching with supervision                     | -----1.444 |



|   |       |
|---|-------|
| 5. Courses in school administration .....                     | 1.442 |
| 6. Courses in school management .....                         | 1.351 |
| 7. Observation of teaching with discussion .....              | 1.270 |
| 8. Courses in particular city or state courses of study ..... | .248  |
| 9. Courses in history of education .....                      | .168  |
| 10. Other professional courses .....                          | .000" |
|   | (8)   |

It will be noticed that these studies do not agree in the relative importance attached to the various subjects. These differences may be due to the importance attached to various subjects as elements in teacher training in the states or schools studied. A more thorough study of the various subjects should be made so that a decision as to importance of each subject in teacher training could be reached.

#### Professional Subjects required in Teachers Colleges.

It is in the belief that subjects other than actual observation and teaching are valuable as preparation for teaching, that most teacher-training institutions have required courses in psychology, the history of education, school management, general methods or principles of teaching, special methods, etc. The Carnegie report shows that in the Missouri normal schools, an introductory course in "general" psychology is required in all and another course in child study is required in two of them; that "a course in the history of education is prescribed for the two-year curriculum in both of the city training schools (Kansas City and St. Louis) and in all of the state normal schools except Cape Girardeau"; (9) some course in general method is offered in most of the schools; and that "under one name or another a course in school management is required in the two-year curricula of all of the schools except Kirksville." (10)

The following subjects are required in practically all of the fourteen curricula outlined in the 1917-18 Year Book of Colorado State Teachers College:

|   |            |
|---|------------|
| Library Science .....                                 | 1 hour     |
| Education 11-Principles of Education .....            | 4 hours    |
| Educational Psychology 2-Educational Psychology ..... | 4 hours    |
| Biology 2-Bionomics .....                             | 4 hours    |
| Sociology 3-Educational Sociology .....               | 4 hours    |
| English 4-Functional English .....                    | 4 hours    |
| Observation, Methods and Teaching .....               | 8-15 hours |
| Physical Education (with or without credit)           |            |

Aside from the above subjects, the requirements in the two-year curricula for the four "training school courses" follow: (11)

|  |         |
|--|---------|
| Educational Psychology 1-Child Hygiene .....                                       | 2 hours |
| Training School 33-Plays and Games for Kindergarten .....                          | 3 hours |
| Training School 15 or 31-Lit. and story telling for Kindergarten and Primary ..... | 3 hours |
| Training School 5 or 6-Primary Methods .....                                       | 4 hours |
| Training School 32-Construction in Kg. & Prim. Grades .....                        | 4 hours |
| Training School 37-The Kindergarten Program .....                                  | 4 hours |

#### The Kindergarten Course.

|   |          |
|---|----------|
| Art 1-Elementary Drawing and Design .....             | 3 hours  |
| Music 3-Kg. and Primary Music .....                   | 4 hours  |
| Physical Education 7-Folk Dancing .....               | 2 hours  |
| Physical Education 6-Singing and rhythmic games ..... | 2 hours  |
| Electives .....                                       | 26 hours |

Note—Kindergarten students must take adequate piano work unless they have previously had its equivalent.

#### The Primary Grades Course.

|   |         |
|---|---------|
| Training School 5-Primary Methods ..... | 4 hours |
|---|---------|

|   |          |
|---|----------|
| Training School 6—Primary Methods .....                 | 4 hours  |
| Training School 33—Plays and Games for Children .....   | 3 hours  |
| Training School 1—Observation and Methods .....         | 4 hours  |
| Training School 3—Elementary School Supervision .....   | 3 hours  |
| Black Board Drawings .....                              | 2 hours  |
| Training School 15—Story Telling .....                  | 2 hours  |
| Zoology 5—Bird Study .....                              | 4 hours  |
| Oral English 3—Appreciation of Literature .....         | 2 hours  |
| Art 1—Elementary Drawing and Design .....               | 2 hours  |
| Training School 32—Construction in Kg. and Prim. Grades | 2 hours  |
| Physical Education 7—Folk Dancing .....                 | 2 hours  |
| Electives .....   | 24 hours |

#### Intermediate and Grammar Grades Course.

|   |          |
|---|----------|
| Training School 1—Observation and Methods .....     | 4 hours  |
| Select two from the following:                      |          |
| Training School 7—Third and Fourth Grades Methods   |          |
| Training School 8—Fifth and Sixth Grades Methods    |          |
| Training School 9—Grammar Grades Methods .....      | 6 hours  |
| Training School 11 .....                            | 3 hours  |
| First Aid .....                                     | 1 hour   |
| Psychology 4—Psychology of Elementary Sch. Subjects | 4 hours  |
| Physical Education 5, 7, 8, or 12 .....             | 2 hours  |
| Select 12 hours from the following:                 |          |
| Geography 12—The Teaching of Geography .....        | 2 hours  |
| Oral English 9—The Teaching of Reading .....        | 2 hours  |
| Methods 8—The Teaching of Arithmetic .....          | 2 hours  |
| Nature Study, Agriculture or Zoology 5 .....        | 3 hours  |
| History 13—The Teaching of History .....            | 2 hours  |
| History 26—The Teaching of Civics .....             | 2 hours  |
| Music 2—The Teaching of Music .....                 | 2 hours  |
| Public Speaking or Story Telling 13 .....           | 3 hours  |
| Electives .....                                     | 31 hours |

#### County Schools Course.

|  |          |
|--|----------|
| Education 25—Rural School Curriculum and Community | 3 hours  |
| Education 6—County Schools Methods .....           | 3 hours  |
| Nature Study .....                                 | 3 hours  |
| Geography 12—The Teaching of Geography .....       | 2 hours  |
| Mathematics 8—The Teaching of Arithmetic .....     | 2 hours  |
| History 13—The Teaching of History .....           | 2 hours  |
| Oral English 9—The Teaching of Reading .....       | 2 hours  |
| Agriculture .....                                  | 4 hours  |
| Public Hygiene 5 .....                             | 4 hours  |
| Elementary Woodwork .....                          | 4 hours  |
| Household Science and Art (Elective for men) ..... | 4 hours  |
| Electives .....                                    | 33 hours |

It will be seen that special methods courses feature the above curricula. No history of education or school management is required and a comparatively small amount of other work in education or psychology is prescribed. Neither is there designated anywhere any order in which the prescribed subjects shall be taken, Ordinarily sociology and biology are taken by students the first year, while the courses in education, psychology, and teaching are taken during the second year. Training School 1, Observation and Methods, a course intended to be preparatory for teaching, is ordinarily taken either the third quarter of the first year or (more likely) the first quarter of the second year. It is intended that the student shall take this course either during the quarter in which he begins his practice teaching or the preceding quarter.

## Amount of Observation and Teaching Required

As has been suggested the amount of teaching required in various curricula varies from eight to fifteen hours. In order to gain eight hours credit in teaching the student is required to teach or observe or do both fifty minutes a day, five days a week for two quarters of twelve weeks each. Consequently, the minimum number of hours actual teaching is  $50 \times 5 \times 12 \times 2 \div 60$  or 100 hours, the minimum set by such authorities as Judd and Parker. This is the minimal amount required in Colorado State Teachers College. In some curricula a much greater time is required. Furthermore a considerable number of students elect additional hours of teaching. For instance of the 198 teachers doing practice teaching in the elementary training school during the Winter Quarter 1917-18, 94 were teaching their first quarter; 81 or 41 per cent of the entire number were teaching their second quarter; 9 or  $4\frac{1}{2}$  per cent were teaching their third quarter; while 8 were teaching their fourth quarter; 2 were teaching their fifth quarter; 2 were teaching their sixth quarter; one her seventh quarter; and one her ninth quarter. If this quarter is indicative of the number of students who teach more than the minimum number of hours, students in the Elementary School average about  $124\frac{1}{2}$  hours student teaching. Students who teach in the rural Demonstration Schools fulfill the minimal requirement as set forth by Judd and Parker in the one quarter. They teach in a regular country school for four weeks, teaching all day for the full twenty days, for which they receive 4 hours credit. Beside this teaching, they do another quarter of student-teaching in the Elementary training school. Consequently teachers preparing for rural school work, up to 36, the number which can be accommodated in these demonstration schools, secure about 170 hours teaching and observation, in fulfilling the eight hour requirement.

There has been some tendency on the part of certain training teachers to assign elective teaching to majors in their grade even before those who have not had the required amount of teaching, have been provided for. In a letter to President Crabbe, the Director of the Training School recommends "that a third quarter may be taken as an elective, the same as any other college elective. However elective teaching shall not be permitted until all applicants have received the requirement of two quarters of teaching." Several teachers, including the Director, have recommended "that the number of student teachers per training teacher be limited to the number her daily program will accommodate." This becomes impossible of course, so long as those taking elective teaching are given preference over, or even equal chances with, those teachers who have not yet had the required amount of teaching. With the facilities at present, it becomes almost impossible to place a definite limit upon the number of student teachers per training teacher.

Majors are expected to teach in their major grades. These major students are not equally distributed through the grades. Even if there were an even distribution, the number of student-teachers is too great for the number of pupils, and for the number of training teachers and supervisors.

It is a difficult matter sometimes to plan work for all teachers making application for student teaching. Under such circumstances, it is indeed difficult then to limit the number of student teachers to each training teacher. The following data on the number of teachers enrolled for student teaching in the various grades and for special subjects for the Winter Quarter (1917-18) show something of the crowded conditions and the difficulties of the training teachers in the Elementary School.

The teachers are distributed as follows:

|                       | No. Teachers | Enrollment<br>for grade |
|-----------------------|--------------|-------------------------|
| Eighth Grade -----    | 13           | 49                      |
| Seventh Grade -----   | 10           | 40                      |
| Sixth Grade -----     | 15           | 38                      |
| Fifth Grade -----     | 15           | 23                      |
| Fourth Grade -----    | 12           | 28                      |
| Third Grade -----     | 18           | 30                      |
| Second Grade -----    | 19           | 37                      |
| First Grade -----     | 18           | 41                      |
| Kindergarten -----    | 8            | 61                      |
| Playground -----      | 19           |                         |
| Music -----           | 13           |                         |
| Cooking -----         | 12           |                         |
| Sewing -----          | 9            |                         |
| Typewriting -----     | 4            |                         |
| Manual Training ----- | 4            |                         |
| Bookbinding -----     | 1            |                         |
| Physics -----         | 1            |                         |
| Printing -----        | 1            |                         |
| Art -----             | 6            |                         |

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This is the only quarter, for which there are exact data as to the number of student-teachers in the training school, but the Director in a communication to the President says "From present indications, we shall have a larger number of applications for practice teaching next (the Spring) quarter than we have had this quarter." It will be noted that for the above quarter there were twenty five more than half as many students doing practice teaching as there were pupils in the Elementary school. It should be noted, also, that 198 is the exact number of students teaching in the Elementary training school during the Winter Quarter while 347 is the total enrollment for the school for the entire three Quarters. It is not difficult to see the crowded conditions when one has the estimate of Judd and Parker on "the numbers of children which will accommodate, annually certain numbers of practice teachers in special training school buildings." (12)

They say that: "300 children will accommodate 40 to 90 teachers."  
 "400 children will accommodate 53 to 104 teachers."

Then 347 children would accommodate from 46 to 97 teachers. It will be seen that student teaching is provided for 70 students, in special subjects, while 123 teach in the regular grades. In the fifth grade with an enrollment of 23, fifteen teachers are accommodated or at any rate exposed to the type of accommodations offered; while in the kindergarten with an enrollment of 61, eight teachers received student teaching. In the former instance there were two student teachers for each group of three children, while in the latter case there were two teachers for each group of fifteen children.

It is difficult to determine just how many pupils are needed in the Elementary training school to accommodate the students who make application for teaching in the school, because of lack of data. Candidates for the Master's degree are required to have satisfactory teaching experience and under certain conditions are required to teach in the training school. Candidates for the degree of Bachelor of Arts in Education are required to teach one quarter in addition to the eight hours (two or three quarters) required for the first two years work leading to the Life Diploma. Many of these candidates elect more than the one quarter. Some of them do their student-teaching in the Industrial High School, while others, who are not to teach in the high school after graduation, teach in the Elementary school. Furthermore some of the graduates from the two-year course do their student-teaching

in the rural Demonstration schools, while some persons, because of successful teaching experience are excused from some "practice" teaching. All of these factors make it almost impossible to make an estimate of the requirements for accommodations during the year.

In the spring of 1918 there were graduated from the two-year course approximately 344 students; 88 from the three-year course; 96 from the four-year course being granted their degree, Bachelor of Arts in Education; and 11 were granted their degree of Master of Arts in Education. In the Winter Quarter about 20 of the total 198 students teaching, were Senior College students (those having done more than two years of work.) There was provision for 36 students in the rural Demonstration schools during the year, while the Industrial High School could easily provide for any number of the Senior College students making application. Granting that the Industrial High School and rural Demonstration schools cared for a number equal to the Senior College group, then the Elementary school would have to provide for the 344 who were graduated from the two-year course. But since this 344 includes those students who finished their work during the Summer Quarter 1916-17 probably not more than 280 students were accommodated during the regular year 1917-18. According to Bagley's formula (13) but using forty instead of thirty as the approximate number of recitation units per week, the number of children needed in the Elementary school to accommodate these 280 student-teachers is 910 instead of the present enrollment of 347. If Bagley's exact formula were used 1138 pupils would be required.

A comparison of facilities in Colorado State Teachers College with those in certain other schools which are limited to independent practice schools is interesting. The data for the schools other than Colorado State Teachers College were secured from the survey of the Missouri Normal Schools. (14) The schools are arranged in the order of their opportunity for student teaching from the poorest to the best. All fall short of standard conditions.

| School                    | Collegiate enrollment | Pupils Available | Ratio students to pupils. |
|---------------------------|-----------------------|------------------|---------------------------|
| Kirksville, Mo. -----     | 530                   | 145              | 1 : 0.27                  |
| Cape Girardeau, Mo. ----- | 432                   | 161              | 1 : 0.37                  |
| Springfield, Mo. -----    | 607                   | 245              | 1 : 0.40                  |
| Greeley, Colo. (15) ----- | 784                   | 347(15)          | 1 : 0.44                  |
| Maryville, Mo. -----      | 200                   | 104              | 1 : 0.52                  |
| Whitewater, Wis. -----    | 374                   | 211              | 1 : 0.55                  |
| Warrensburg, Mo. -----    | 514                   | 325              | 1 : 0.63                  |
| Greeley, Colo. (16) ----- | 784                   | 551(16)          | 1 : 0.70                  |
| Valley City, N. D. -----  | 327                   | 259              | 1 : 0.79                  |
| Greeley, Colo. (17) ----- | 784                   | 892(17)          | 1 : 1.14                  |

Another interesting comparison is with the data collected by Kelley and Scott (18) from sixty-eight normal schools. These writers conclude:

"The institution giving about the median amount of emphasis to training school work is one which,

"1. Has about 1.6 times as many students in grades 13 and 14 as in grades 1 to 8;

"2. Has about 2.2 times as many children in the training school as students teaching during the year;

"3. Has about five and a half times as many members in the entire faculty as in the training school faculty; and

"4. Requires about one hundred sixty hours of student teaching for graduation."

Colorado State Teachers College has more than 1.8 times as many students in the first two years of College as in grades 1 to 8, not including the 204 pupils enrolled in the four rural demonstration schools; it has about 1.2 times as many children in the training school as students;

teaching during the year; it has about seven times as many members in the entire faculty as in the training school faculty, omitting the instructors in both the Industrial High School and the Rural Demonstration schools from the count; and it requires about one hundred hours of student teaching for graduation.

Including all practice facilities in the institution which is hardly fair because of the fact that such a large part are trained in the Elementary School, the picture is much better. If the enrollment in the rural schools (204) is included, the school has but 1.2 times as many students in the first two years as in grades 1 to 8. Including the enrollment in all three departments—the Industrial High School (341) the Elementary School (347) and the Rural Demonstration schools (204)—there are more than twice as many children in the training department as students teaching during the year. Including the members of the faculty of all departments of teacher training, there are only three and one-third times as many members in the entire faculty as in the training department faculty.

Still another comparison is worthy of consideration. Wilson, after studying "practice" teaching requirements in forty-six schools, says: "In the nineteen schools for which the proportion can be definitely ascertained, the practice teaching varies in amount in the two-year curricula from 6.25 per cent to 27 per cent of the total credits required for graduation, the median for the nineteen being 11.57 per cent." (19) In Colorado State Teachers College the requirements vary from 8.33 per cent to 12.5 per cent of the total credits for graduation.

#### Amount of Time Spent in Preparation for Student Teaching.

A factor which should be considered in estimating the amount of contact the student has with the training department is the amount of time he spends in preparation for his teaching.

Wilson (20) reports a study made at Winona, Minnesota (21) which lists for all subjects "the average minutes of study for each subject as reported by students." For the Fall term, 1914, there is a variation of from 33 minutes given to music to 2 hours 20 minutes given to the preparation for each hour of teaching. The variation for the Spring term, 1916, runs from 50 minutes in Sewing and Textiles to 2 hours, 33 minutes in Teaching. The same author reports a study of "sixty-three seniors in Eastern Illinois State Normal School who were doing an hour of practice teaching and carrying three other subjects each day." He shows in this study, also, that preparation for teaching requires much more time than that given to other subjects. Whereas the median time for the eleven subjects or groups other than teaching is 40-49 minutes the median number of minutes spent in preparation for teaching is 100-109. In this study, also, music required least preparation, the median number of minutes given to preparation for one recitation in this subject being 28-29.

Mr. Wilson says: "The evidence from these two studies shows that a scheduled hour of practice teaching means more work in teaching than a scheduled hour of normal school work does in the subject concerned by a margin of 75 per cent at Winona, of 100 at Charleston. If the situation in these two schools is typical of the condition in normal schools generally, credit hours of teaching required do not give an adequate index to the amount of work involved in teaching in comparison with work required in other subjects. Of this fact persons who make normal school programs and administer normal school credits should take cognizance." (22)

That this same general condition exists in Colorado State Teachers College, is indicated by the few studies which have been made along this line. The Director of the training school shows that an average of 158 minutes a day was given to teaching and the preparation for teach-

ing during the Winter Quarter 1917-18, and an average of 147 minutes during the Spring Quarter of the same year. The writer made a brief study which tends to show that the time given to subjects of the "professional core" does not amount to the above figures for teaching. In the case of one of the "core" subjects the time given to preparation was less than half that indicated by the figures given above for teaching.

Dr. Heilman (23) has made the most careful study of the relative amount of time given to the various subjects. He shows that "for every hour of teaching, the students spent about .6 of an hour more in preparation than in preparation for an hour of recitation. Taking the mean as a basis there are 2 hours of preparation for every hour of teaching, but there are only 1.4 hours of preparation for every hour of recitation. From this it follows that the student who is engaged in teaching is carrying a much heavier load than the one who does not teach. If either one of these loads is adapted to the capacity of the learner, the other is not. Probably some readjustment is demanded by the situation."

Dr. Heilman has pointed out two other very interesting facts concerning student teaching. He has shown that there is a great variation of time spent on teaching among students and has given also the relative amount of time given to conference, observation and teaching. The amount of time given to these three activities is almost in the ratio of 2:3:4. About twice as much time is given by the student to actual teaching as to conference with the training teacher and about 4-3 as much time to actual teaching as to observation of the training teacher. With regard to the variation in observation and teaching (the two taken together) he says, "The coefficient of variation for teaching and observation combined is very large, .290. This large variation it is difficult to explain in other terms than gross mismanagement, especially when we compare it with the coefficient for recitations which is only .125. There is far more reason for uniformity in the amount of teaching than in the hours spent in recitations, because teaching takes the place of a four-hour recitation. The distribution for observation and teaching shows that there are 15 students who teach and observe 1 hour and that one student teaches and observes 8 hours. This single case may be explained on the grounds of double teaching which is sometimes allowed, but this does not explain why 11 students should teach 5 hours and 5 students 6 hours out of a total of 47 students. On account of these wide variations where practically no variation should occur, I give here the whole distribution table for teaching and observation combined:"

| Clock Hours | Frequencies |
|-------------|-------------|
| 1-----      | 5           |
| 2-----      | 4           |
| 3-----      | 9           |
| 4-----      | 10          |
| 5-----      | 11          |
| 6-----      | 5           |
| 7-----      | 2           |
| 8-----      | 1           |

#### Administration and Supervision of Student Teaching.

The value of contact with the training department and of the time given to preparation for such contact, however, is largely dependent upon proper administration and efficient supervision of teacher training facilities. Although in previous parts of this survey the organization and the administration of student teaching have been discussed, it might be well to summarize conditions at this point.

For training teachers for rural schools, there are four one-teacher country schools within a radius of seven miles of the College. Students who anticipate teaching in the rural school, are required to take their

first quarter's "practice" in the Training School and the second quarter in the Demonstration School. They may elect a third quarter in the Demonstration School. The student-helper (student teacher) spends four weeks in these schools, living in the teacher's cottage, with the regular teacher of the school. Four hours' credit is given for this work,—a total of 120 hours' work. These schools, then provide for 36 of these teachers each year. The student-helper acts as an assistant to the regular teacher and is allowed to assume such regular duties as her capabilities warrant. These student teachers are always under the closest supervision of the regular teacher and are supervised by the Director of the County Schools, heads of the special departments of the College and occasionally by the county superintendent.

For the training of high school teachers the High School of Industrial Arts with an enrollment of 341 furnishes liberal opportunities. It is intended that only those who have completed the first two years will teach in the secondary school and that they will teach but one quarter beyond the requirement for the first two years. As a matter of fact many teachers who are still in their second year teach in the high school. The plan calls for the student teacher to teach during the first quarter once a week and to hand in two or more lesson plans. The second quarter, she teaches twice a week and hands in two lesson plans, and the third quarter she teaches four times a week and hands in four lesson plans. This is the ideal toward which the principal was working. As a matter of fact some teachers taught without supervision from either teachers or principal. One student teacher who had taught two quarters of Latin, and who was an excellent student of Latin was asked to teach two classes of the subject during one quarter. In this case she was practically the only individual who was really capable of teaching Latin and those in charge of student teaching insisted that she teach two classes during the one quarter, regardless of the fact that she had already taught two quarters in the same subject and would probably receive little value. The student asked the writer's opinion as to what should be done, saying that she had been "visited" but once during the two previous quarters of "practice" teaching, and that if she refused to take these classes, she would not receive the proper recommendation from the parties in charge, she feared. This may or may not have been an exceptional case.

The ideal toward which the administration of the Elementary training school strove, as given in the words of a training teacher, follows:

"What is known as 'A Sliding Daily Teaching Program' or Orientation Teaching within each grade, calls for each student to teach every day, observe the training teacher teach every day, and to have a set regular conference period with the training teacher every day. Then during the quarter of twelve weeks each student teacher is to teach within one grade four different subjects, or at the end of each three weeks each teacher is assigned a new subject to work up and teach. The subjects of the program are shifted each three weeks to work in with the teacher's schedule. For example, arithmetic may be taught at 8:50-9:20 the first three weeks; at 11:00 to 11:30 the second three weeks; the third three weeks at 1:30-2:00 and the last three weeks from 3:00-3:30. All other subjects are shifted likewise." The teacher has direct charge of conditions in her room; the Director visits certain rooms more or less frequently. In special branches such as art, music, woodwork, cooking, sewing, and some phases of physical training, the supervisors,—the head or other member of these various departments in the college—work directly with the student teachers. In these branches the supervisor may demand special preparation of the student teacher aside from the requirement of the training teacher; or the supervisor may agree that the plans of the student teachers are to be approved by both supervisor and training teacher before the lessons are taught. In the remaining subjects, the work is done through the



training teacher. Student teachers meet the training teachers in their respective rooms for a regular meeting each Monday at 3:15, except on the first Monday of each month when they all meet with the director. At these meetings problems of the student teachers are sometimes discussed; at other times demonstrations of special methods are given.

It has been the practice to excuse from student teaching, those individuals whose experience in the field seems to warrant. Furthermore at the time this survey was made it was the practice to substitute observation for a part of the teaching requirements in certain instances. That is, the entire quarter was given to observation instead of to the customary plan of observation and teaching and conference. Then, too, the course in Training School 1, designed as a preparation for student teaching, was intended as a course in observation. It had developed into a theory course at the time of this survey and little observation was carried on.

A further statement of the general plan of the administration of student teaching in the Elementary training school is found in the following communication to all training school teachers from the Director.

### Training School Directions for Critic Teachers

The critic teachers have a double obligation to fulfill. Their first duty is to see to it that the children are well taught; that they do exceptionally high-type school work in each subject; and that they form good habits of study. Their second duty is to train student teachers in the art of teaching.

In carrying out the foregoing, the following suggestions are offered to the critic teachers. During the first few days of each term the critic teacher should do most of the class room teaching in order to put the school in a good working attitude. The class organizations should be perfected. The mechanical technique of the class room management should be well established. Interest in all school activities should be in evidence and the pupils should come to feel that the critic teacher is their teacher before the student teacher is allowed to take charge of the class.

During this time of adjustment the student teachers should be observing the critic teacher while she is performing this important task,—getting the school well started in the shortest possible time. During this period of observation the student teachers should write up lesson plans from the lessons observed. They should determine from their observations how the critic teacher puts into operation teaching principles. Student teachers will try to determine the aim of the teacher; the aim of the pupils; whether or not the subject matter is given for knowledge, skill (drill) or attitude; methods and devices used by the critic teacher for securing interest; how she secures maximum effort from each pupil in her class, etc.

It is expected that during this period of observation, student teachers will form good standards for class room work; and that they will form definite notions for applying these standards to class room instruction. The student teachers will discuss the results of their observations with critic teachers and Director of Training School.

After the children have been brought up to a high standard of school work and school attitude, the student teachers who have made the best showing in observation will be given a chance to try out their plans by teaching the class under the supervision of the critic teacher whose duty it shall be to keep such close supervision over the practice teaching that the pupils do not lose anything whatsoever. On the other hand the quality of the work done by the children should continue to grow better and better during the entire term, not withstanding the fact student teachers are teaching part of the time.

Gradually the teaching will be placed more and more in the hands of student teachers as their success seems to warrant. However, no student shall continue teaching any considerable period of time when the class is losing ground under her instruction. In such cases the student teacher shall spend more time in observing and studying teaching methods. Children must never

suffer loss in their work. How to supervise the work of the inexperienced student teacher without loss to children is one of the most difficult but vital problems confronting the critic teacher, and requires the greatest skill, tact, and judgment on her part.

Under the above plan it will be necessary for critic teachers to be present in their rooms most of the time when student teachers are teaching in order that she may know definitely the weakness and strength of the student teacher. This close supervision may gradually lessen as the term advances, providing student teachers reach a degree of efficiency which would warrant less supervision. Before the student teacher has finished her practice teaching, she will be expected to be able to assume complete responsibility of the class without the presence of the critic teacher.

Under close supervision during the first part of her practice teaching the student teacher will not be permitted to go far astray, or form bad habits in teaching; children will not suffer loss under her instruction. Under such supervision it is expected that she will reach a higher degree of efficiency at an earlier date than she otherwise would.

It has been suggested that such close supervision by the critic teacher may tend to embarrass the student teacher. In such cases it might be wise to make some exception. However, by one means or another the Director of the Training School, through the critic teachers, must have a clear, definite conception of the type of work that is being done by each student teacher. The critic teacher shall be expected to hand written statements to each student teacher at least twice a week, setting forth both the strong and weak points in her teaching.

Each student teacher will provide herself with a loose leaf note book in which to keep her lesson plans. These note books are to be of such type as will admit the insertion of the sheet of printed "Standards for Judging the Recitation." This sheet is to be used by the critic teacher in criticising or in making suggestions to the student teacher. The student teacher will insert this sheet of suggestions or criticism immediately after the plans of the lesson criticised.

Student teachers will leave their plan books in the office of the Director of the Training School once each week for his inspection. A study of these plan books together with the criticism and suggestions of the critic teachers will keep the Director of the Training School informed as to the progress of each student teacher and will aid him in directing and unifying the work.

In order that he might know that the work of the training teacher was being done satisfactorily, the Director also required that answers to the questions found under "Standards for Judging the Recitation" be written for each student observed and handed into the office. Each student teacher was given a set of these "Standards" in order that he might know upon what bases he was to be judged.

### Standards for Judging the Recitation

Teacher's ultimate aim -----

Teacher's immediate aim -----

The Pupil's aim -----

Is the lesson given for:

1. Knowledge?
2. Skill?
3. Attitude?

Which of the following teaching principles were observed and which violated?

1. Do the children recite to the teacher or do they address the class?
2. Do all the children in the class seem eager at all times to hear and understand the one reciting?
3. Do the children ask questions of each other?

4. What per cent of the class measures up to its maximum of capacity during the entire recitation?
5. Do the children consume most of the time of the recitation?
6. Do the teacher's plans provide for the initiative on the part of the children? How?
7. Do the teacher's plans provide for the organization of subject matter on the part of the pupils?
8. Is the administration of the class such as to cause each pupil to do all the work assigned?
9. Does the teacher ask thought questions or memory questions?
10. What means does the teacher use to stimulate the children?
11. Are the pupils depending upon thought or memory to retain the points of the lesson?
12. Is there a summary at the close of the recitation?  
In what form is this summary?
  - a. In way of reviewing the points of the lesson.
  - b. In way of using the points of the lesson.

Remarks:

Wilson (24) gives numerous score cards used in the various schools for rating student teachers. One of the most interesting and worth while series of score cards is that used by the Kansas State Normal School at Emporia. There are seven different score cards in this series. "One of these is an 'Observation and score card for project-problem instruction' on which sixteen points are listed as follows:

1. Ability of pupils to work as a social group.
2. Ability of pupils in planning and outlining projects.
3. Ability of pupils in raising and stating problems.
4. Ability of pupils to distribute the work of the project among themselves, which is to be done in the following study period.
5. Ability of individual pupils to make reports to the class which they have previously worked out in the study period.
6. Degree of attention and skill of the class in taking notes on the report being given by the pupil.
7. Ability of the class to carry on fruitful discussion and ask questions about matters not clear to them.
8. Ability of the class in giving criticism intended to help the pupil reporting.
9. Ability of the class in summarizing and drawing conclusions when all reports of problems or points related to the class project by individual pupils have been given.
10. Ability of pupils in discovering their needs for skill or knowledge of certain technique required to work out the project or to solve the problem.
11. Ability of pupils in planning, and in conducting drills or work in acquiring knowledge of technique.
12. Ability of individual pupils in being thoughtfully active throughout the recitation.
13. Ability of pupils to respect leadership in the members of their class.
14. Degree of good leadership developed in the recitation.
15. Ability of pupils to cooperate freely, helpfully, orderly.
16. Ability of pupils to criticize each other's work sympathetically, and to receive criticism in the right spirit.

"The other score cards used at Emporia are:

Observation and score card for general conditions of Instruction. Fifteen items.

Observation and score card for teacher activities in the recitation period. Ten items.

Observation and score card for pupil activities in the supervised study period. Eleven items.

Observation and score card for teacher activities in the supervised study period. Eight items.

Observation and score card for drill projects. Twenty-two items.

Observation and score card for appreciation activities. Nine items.”  
(25)

It seems that these score cards are used in estimating the student teacher along the various lines suggested. The greatest value, however, would come from placing these score cards in the hands of the students to be estimated. As Wilson points out, however, the series used in Kansas, like many of the score cards, do not provide for scoring the prospective teacher in ability to criticise herself. This trait of self-criticism is undoubtedly one of the most important factors in teacher training not only for prospective teachers but for experienced teachers as well. This trait, if practiced by the training teacher, might bear excellent results.

Not enough attention has been given to directed observation, or to measuring student teachers by means of score cards in Colorado State Teachers College, although something has been done along both these lines. The training teachers should study together such material as “The Supervision of Instruction” by Hubert Wilber Nutt (26) and “Training Departments in the State Normal Schools in the United States” by Wilson, (27) as a preparation for the various activities involved in teacher training.

Professor Nutt gives outlines for the observation of demonstration teaching, and numerous observation assignments, covering “preliminary observation,” “critical observation,” “observation to evaluate teaching,” and the like. The observation assignment for preliminary observation deals with general conditions, such as physical conditions, names and personal characteristics of pupils, general spirit of the recitation, conditions which need improving and plans for such improvement. Observation assignment (1) for critical observation deals with the physical conditions of the room in detail under ten heads,—a. Ventilation, b. Temperature and humidity, c. Lighting, d. Conditions of walls and ceiling, e. Condition of floors, f. Blackboards, g. Condition of pupils’ desks, h. Apparatus, i. Displays of work, and j. Pupils. Each of the above ten heads are subdivided into from two to six sub-topics.

Observation Assignment Two is an outline for the consideration of physical and mental devices. Assignment Three contains suggestions for noting the technique of the teacher. The student is asked to “note each item of technique that was prominent and when possible note the number of times practiced.” (28) Assignment Four asks the student to “note the application of method to the organization and presentation of subject matter,” and gives an outline to direct the student in his observation along this line. The “Outline for Directed Teaching” (29) covering the items (1) as to method, (2) as to devices, and (3) as to technique, each carefully planned and outlined is indeed valuable for any teacher to have for reference in his own teaching, and particularly would this be valuable to prospective teachers just learning to teach.

In the “Hand Book of Practice” for training teachers, supervisors and student teachers in Colorado State Teachers College, previously referred to, there appears the following “suggested plan of observation:”

#### SUGGESTED PLAN OF OBSERVATION

- I. Subject Matter.  
Description of the amount covered.
- II. Preparation.
  1. Teacher.
  2. Pupil.

- III. Skill in Presentation.
- IV. Means employed.
  - 1. Blackboard.
  - 2. Questions.
  - 3. Skill in Drill.
  - 4. Story.
  - 5. Other Means.
  - 6. Number of times different pupils recited.  
(Were these used to proper advantage?)
- V. Effort.
  - 1. Teacher.
  - 2. Pupil.
- VI. Manner of Meeting Children.
  - 1. General.
  - 2. Slow Child.
  - 3. Quick Child.
  - 4. Number of times different pupils recited.
  - 5. How was the child who failed given the instruction needed?
- VII. Use of English (Oral and Written).
  - 1. Teacher.
  - 2. Pupil.
- VIII. Use of Voice.
  - 1. Teacher.
  - 2. Pupil.
- IX. Personal Appearance—Teacher and Pupils.
- X. Care and Hygiene.
  - 1. Room.
  - 2. Children.

The idea of self-measurement, referred to earlier in this discussion finds a place, also in this "Hand Book" in the following words:

#### TEACHER'S GUIDE FOR SELF MEASUREMENT

These questions have been selected as embodying the essential features of the recitation. You should study this sheet continually. Every question is of vital importance. A careful report on each question will be demanded from you twice each term—the first report at the end of the first five weeks and the second report two weeks before the end of the term. Definite statements concerning each individual child will be asked for whenever it is possible to do this. Be honest in your reports, and do not try to pad them. Confer often with your training teacher and with the principal. It is their business to give you attention. Know what you are doing, why you are doing it, and where you are going. The Training School is yours. Be sure that you have a good supply of definite, practical, teaching knowledge before you have finished your practice teaching. If necessary, elect teaching beyond the regular requirements.

1. Are the children acquiring good habits of study and recitation?
2. Are you sure that the child knows for what he is working in each recitation?
3. How do you make sure that a pupil who fails on a point finally gets it?
4. Insist upon good English, best writing, etc., in all classes. State your experience in this work with your class.
5. Is the form of your questions improving?
6. Is the center of the recitation in you or in the pupils? Who does the work? Do the children ask intelligent questions as well as you?

7. What definite facts or in what definite ways have your pupils gained?
8. Can the children organize material with an outline or give a connected talk on a topic which has been developed?
9. Have you paid any attention to the weighing of values in your classes? And have the pupils been given opportunities to weigh values?
10. Give several methods you use in meeting the needs of both slow and quick children in the same class.
11. Is there any confusion in the class at the beginning of a lesson? At the end? Why?
12. Do the children all have a fair chance to recite?
13. Is there an improvement in each one who was troublesome about speaking out without permission?
14. Does any child interfere with the work of another?
15. Are you able to cause a child to want to do right?
16. How do you care for the hygiene of your room? Ventilation?

In addition to this, a concrete record of the work of each student teacher will be filed at the end of each term's work. This record runs as follows:

### CONCRETE TEACHING RECORD

Give Careful Description Under Each Heading.

|                       |  |     |
|-----------------------|--|-----|
| Name                  |  | Age |
| Personal Appearance   |  |     |
| Discipline            |  |     |
| Professional attitude |  |     |
| Results obtained      |  |     |
| Personality           |  |     |

Still another outline used in the training school is this one on methods and devices. Although not so detailed as those given by Professor Nutt, it has served its purpose.

### AIDS IN METHODS AND DEVICES.

1. Each subject to be presented from the following view points.
  - (a) Content of subject matter.
  - (b) Method of study (Habits).
  - (c) Attitude of pupil.
    - (1) Special attention to be given to (b) and (c).
2. Desirable habits to be formed.
  - (a) Habits in each recitation that will be of use during the child's life.
    - (1) The habit of reciting to the class instead of to the teacher.
    - (2) The habit of hearing and understanding everything that is said in the class recitation.
    - (3) The habits of concentration and effort.
      - I. Avoid teaching two things where one will answer.
      - II. Avoid the formation of a habit that must be broken up later.
3. Some standards for judging the efficiency of our work.
  - (a) Do we give attention to the physical conditions of our school?
  - (b) Do we give attention to the development of life problems?
  - (c) Do we provide for the development of initiative and self reliance on the part of the pupil?
  - (d) Do we provide for the organization of subject matter?
  - (e) Do we lead pupils to estimate relative value?
  - (f) Do we develop personal qualities on the part of pupils?

Charts have been arranged for rating student teachers in both the rural Demonstration schools and the Elementary training school. The chart below is used by the Director of County Schools and the regular teachers in the rural Demonstration schools in rating the student teachers in these schools. The Director says that "the rating system tends to intensify effort and encourage a definiteness of purpose and aim."

**COLORADO STATE TEACHERS COLLEGE**  
**RATING OF STUDENT TEACHERS**  
in  
**RURAL DEMONSTRATION SCHOOLS**

Teacher ----- Dist No. -- School -----  
Student Helper ----- Dist. No. -- School -----  
No. of Pupils ----- Boys -- Date ----- Month -----  
Girls --

**I. Physical and Native Efficiency**      **130 Units**      **Rating**-----  
1. General Health ----- 20 --      5. Energy ----- 15 --  
2. Voice ----- 10 --      6. Self Control ----- 20 --  
3. Personal Habits ----- 15 --      7. Sympathy-tact ----- 20 --  
4. Industry ----- 20 --      8. Adaptability ----- 10 --

**II. Measure of Instruction**      **130 Units**      **Rating**-----  
1. Definite aim ----- 20 --      5. Effective adaptation ----- 20 --  
2. Interest of Pupils ----- 20 --      6. Responsiveness to  
3. Vitalized Instruction ----- 20 --      Suggestion ----- 15 --  
4. Presentation ----- 15 --      7. Power of discipline ----- 20 --

**III. Preparatory Efficiency**      **130 Units**      **Rating**-----  
1. Oversight of school during class      5. Co-operation ----- 20 --  
instruction ----- 15 --      6. Ability to see the school in  
2. Daily and weekly      relation to patrons ----- 15 --  
preparation ----- 20 --      7. Professional training (one  
3. The School Program ----- 20 --      year) ----- 20 --  
4. Social contact ----- 20 --

**IV. Acquired Efficiency**      **110 Units**      **Rating**-----  
1. Leadership ----- 20 --      4. Accuracy of Pupils ----- 20 --  
2. Pupil and community      5. Accuracy of student  
respect ----- 15 --      helper ----- 20 --  
3. Responsiveness of Pupils ----- 20 --      6. Progress of Pupils ----- 15 --

**Total Number of Units**      **500**  
Rating of Student Teacher -----

Note:  
Deduct from 10 Slight, 2; marked, 4; very marked, 6; extreme 8.  
Deduct from 15 Slight 3; marked 6; very marked, 9; extreme 12.  
Deduct from 20 Slight 4; marked 8; very marked 12; extreme 16.  
Teacher -----  
Director Department of County Schools -----

The chart following is used for rating student teachers in the Elementary school.

**COLORADO STATE TEACHERS COLLEGE**  
**TRAINING SCHOOL**

**Estimate of Student based on work done in Training School**

Name ----- Quarter ----- Year -----  
(Last Name First)

**TEACHING EXPERIENCE:**  
(a) Number months in Rural Schools -----  
(b) Number months in Village Schools -----  
(c) Number months in City Schools -----

**TEACHING IN TRAINING SCHOOL:**

- (1) No. of Quarters -----
  - (2) Grade -----
  - (3) Subjects taught -----
- 
- 

**TRAINING TEACHER'S ESTIMATION**

**A. Moral Character:**

|                              | Poor  | Fair  | Good  | Excellent |
|------------------------------|-------|-------|-------|-----------|
| (1) General Reputation ----- | ----- | ----- | ----- | -----     |
| (2) Personal Estimate -----  | ----- | ----- | ----- | -----     |

**B. DISPOSITION: To what extent does the applicant possess the following qualities?**

|                                  | Not at all | Slightly | Moderately | Largely |
|----------------------------------|------------|----------|------------|---------|
| (1) Self Control -----           | -----      | -----    | -----      | -----   |
| (2) Enthusiasm -----             | -----      | -----    | -----      | -----   |
| (3) Sympathy -----               | -----      | -----    | -----      | -----   |
| (4) Tact -----                   | -----      | -----    | -----      | -----   |
| (5) Sense of Humor -----         | -----      | -----    | -----      | -----   |
| (6) Tendency to Co-operate ----- | -----      | -----    | -----      | -----   |
| (7) Cheerfulness -----           | -----      | -----    | -----      | -----   |
| (8) Fairness -----               | -----      | -----    | -----      | -----   |
| (9) Open Mindedness -----        | -----      | -----    | -----      | -----   |
| (10) Adaptability -----          | -----      | -----    | -----      | -----   |

**C. PHYSICAL EFFICIENCY:**

|                          | Poor  | Fair  | Good  | Excellent |
|--------------------------|-------|-------|-------|-----------|
| (1) General Health ----- | ----- | ----- | ----- | -----     |
| (2) Endurance -----      | ----- | ----- | ----- | -----     |
| (3) Industry -----       | ----- | ----- | ----- | -----     |

**D. PERSONAL APPEARANCE: To what extent are the following qualities characteristic of the person?**

|                          | Not at all | Slightly | Moderately | Largely |
|--------------------------|------------|----------|------------|---------|
| (1) Cleanliness -----    | -----      | -----    | -----      | -----   |
| (2) Neatness -----       | -----      | -----    | -----      | -----   |
| (3) Attractiveness ----- | -----      | -----    | -----      | -----   |

**E. TEACHING POWER: How would you rate the applicant on the following points?**

|   | Poor  | Fair  | Good  | Excellent |
|---|-------|-------|-------|-----------|
| (1) Preparation of Lessons -----  | ----- | ----- | ----- | -----     |
| (2) Assignment of Lessons -----   | ----- | ----- | ----- | -----     |
| (3) Skill in questioning -----  | ----- | ----- | ----- | -----     |
| (4) Ability to connect new lessons with the experience and interest of the pupils ----- | ----- | ----- | ----- | -----     |
| (5) Ability to distinguish between major and minor in subject matter -----              | ----- | ----- | ----- | -----     |
| (6) Resourcefulness in illustration, methods and devices -----                          | ----- | ----- | ----- | -----     |
| (7) Ability to develop the initiative of pupils -----                                   | ----- | ----- | ----- | -----     |
| (8) Ability to generate clear and forceful expression by the pupils -----               | ----- | ----- | ----- | -----     |



F. DIRECTIVE SKILL:

|  | Poor | Fair | Good | Excellent |
|--|------|------|------|-----------|
| (1) In directing the proper employment of pupils who are not reciting -----                              |      |      |      |           |
| (2) In securing co-operation of pupils in school government -----  |      |      |      |           |
| (3) In keeping the school room in proper condition with respect to health and aesthetic appearance ----- |      |      |      |           |
| (4) In the direction of play activities -----  |      |      |      |           |
| (5) In the creation of wholesome school spirit -----   |      |      |      |           |
| (6) Interest in community welfare -----  |      |      |      |           |

G. PREPARATION IN SPECIAL SUBJECT:

|                           | Poor | Fair | Good | Excellent |
|---------------------------|------|------|------|-----------|
| (1) Music -----           |      |      |      |           |
| (2) Art -----             |      |      |      |           |
| (3) Penmanship -----      |      |      |      |           |
| (4) Cooking -----         |      |      |      |           |
| (5) Sewing -----          |      |      |      |           |
| (6) Manual Training ----- |      |      |      |           |
| (7) -----                 |      |      |      |           |

H. GENERAL RANKING:

|                                  | Quartile 1st | 2nd Q. | 3rd Q. | 4th Q. |
|----------------------------------|--------------|--------|--------|--------|
| (1) Training Teaching -----      |              |        |        |        |
| (2) By Director -----            |              |        |        |        |
| (State Board of Examiners) ----- |              |        |        |        |

NOTE—In filling out this blank, do not attempt to give information about which you are not certain.

- (1) Nutt, Hubert Wilber, Director of the Oread Training School and Associate Professor of Education, University of Kansas, the Supervision of Instruction.
- (2) Ibid, P. 35.
- (3) Ibid, P. 36.
- (4) Ibid, Pp. 83-85.
- (5) Merriam, J. L., Normal School Education and Efficiency (N. Y. 1906)
- (6) Survey of Wisconsin Normal Schools (1914)
- (7) Carnegie Foundation Bulletin No. 14, P. 442.
- (8) Ibid.
- (9) Ibid P. 184.
- (10) Ibid P. 190
- (11) Colorado State Teachers College Bulletin—Series XVII, No. 1, April 1917.
- (12) Bulletin 1916, No. 12, Bureau of Ed. P. 54.
- (13) Curricula Designed for Professional Preparation of Teachers for American Public Schools—Carnegie Foundation for the Advancement of Teaching, 1917.  
Wilson—Training Departments or State Normal Schools in the U. S. Bulletin No. 66, Eastern Illinois State Normal School. P. 25
- (14) Carnegie Foundation for the Advancement of Teaching, Bulletin 14, P. 196
- (15) Only the enrollment of the Elementary Training School included.
- (16) Includes the rural demonstration schools (204)
- (17) Includes both the rural demonstration schools (204) and the Industrial High School, (341).
- (18) Educational Administration and Supervision 1915, Vol. 1, p. 591 also Wilson, Training Departments in the United States, p. 25.
- (19) Wilson—Training Departments in Normal Schools of the United States—Evanston, Ill., Normal School Bulletin 66, p. 38.
- (20) Ibid—pp. 44-46.
- (21) Winona Normal Bulletin, February, 1917. Pp. 281-2.
- (22) Wilson—Pp. 46-47.
- (23) Heilman, J. D.—The Total Load of Teachers—Section Four, Educational Survey of Colorado State Teachers College. Bulletin, Series XX, No. 9.
- (24) Wilson—Training Departments in the State Normal Schools of the U. S. Pages 94-112.
- (25) Ibid—Pp. 101-102.
- (26) Nutt, Hubert W.—The Supervision of Instruction, 1920. Riverside Text Book Series—Houghton, Mifflin Co.
- (27) Wilson, Lester M.—Training Departments in the State Normal Schools in the United States, 1919. The Normal School Bulletin, Eastern Illinois Normal School, No. 66.
- (28) Nutt—The Supervision of Instruction, P. 149.
- (29) Ibid—Pp. 164-170.

## VII. SUMMARY AND RECOMMENDATIONS

Although practically all Normal Schools and Teachers' Colleges, both private and public, have arrangements for student teaching, too little attention has been given to this phase of teacher training. This is indicated by conditions which exist among the teaching profession. Many teachers now in the field have never had a day of teaching experience before being placed in charge of a room. Comparatively few teachers in teacher training institutions have the training requisite for a proper attitude toward student teaching. Teaching training institutions differ so widely in the amount and kind of student contact with the training department, that there is need of common knowledge of the excellencies of the various schools. What is done profitably in one school can probably be done in another.

There is little question, today, that supervised student teaching is a vital factor in the ideal preparation of teachers. Although authorities everywhere advise making the training school the "heart" of the normal school, neither these administrators nor members of the faculties have taken the problem seriously enough. Teachers of academic subjects and even of the professional subjects often do not have a proper attitude toward the work done in the training school and the training school teachers become critical of the time and attention given to academic and professional subjects. This break often develops into open hostility. Surveys of teacher-training institutions should be made so that the valuable features of the various schools might become common to all, and so that the true worth of the various subjects of the curriculum including student teaching, might be understood. By means of such studies and by a more careful selection of instructors who have a professional point of view, there will develop a proper attitude on the part of each member of the faculty for the work of every other member and a spirit of true cooperation.

So long as such differences in training, experience and salary of teachers in the training school and of teachers in the other departments of the College exist, however, it is likely there will not be the desired cooperation. It is unfortunate that any faculties should have it said of them that inter-departmental cooperation is "mainly incidental or accident." Only when each member of the faculty takes this statement seriously and makes certain that it is not true in his own case, will the present condition be changed materially. Perhaps the most satisfactory plan of arriving at such a conclusion is by the careful study of the function of the College and of each department of the College and the relationship which exists between the various departments. Such a study will often reveal the fact that certain departments are failing to realize the function for which they were established.

The authorities and faculty of Colorado State Teachers College may as well face frankly and honestly the fact that we have quite ordinary training school facilities and that probably our organization does not make the fullest use of these ordinary facilities. An organization which includes members of the so-called academic departments of the College on the supervisory staff for the control of training facilities would probably tend toward a more complete utilization of these facilities than is possible under the present plan. So long as members of the faculty, other than those of the training school, have nothing to say of the control of teacher training, progress will likely come slowly.

Not only should there be an organization for determining the general policy of the institution toward teacher training, but there is real need of closer organization within the Elementary training school itself. Definite plans of procedure throughout the grades should be developed so that

there will be harmony and unity of method. This will necessitate immediate attention to a definite detailed, and printed course of study. The lack of such a course of study is one of our greatest weaknesses. If this type of organization were developed, there would not be the marked changes in policy everytime the director of the training school changes.

Some of the strong points in the arrangement for student teaching in the College might appropriately be given. There is an opportunity for teachers preparing for rural school, elementary school or high school work to secure teaching under supervision. Student teachers preparing for special work such as work in the languages in the elementary school, for physical education in the form of plays and games or folk and aesthetic dancing, for sewing, cooking, manual training, and many other forms of industrial work, have excellent opportunity for not only "practice" teaching along these lines but for efficient supervision as well. These teachers have access, also, to strong departments along academic and professional lines in the College. Training school children have become especially interested in wireless telegraphy and other forms of electrical equipment because of the work in the College along these lines. They have become specialists in certain phases of biology before completing the grades. They have access to a most beautiful campus with every tree and shrub which will grow in this climate growing outside and many plants which do not develop in this climate, growing in the large green house; to a flower and vegetable garden growing under ideal conditions, in the midst of the "Garden Spot of the World"; a museum of birds and animal life surpassed by few in the West; and to painting and pottery, gathered from all parts of the world, whose value can not be estimated. Such an environment will have a marked influence upon prospective teachers.

But there are still many things to be done to make conditions for student teaching most satisfactory. The County Schools Department could well be developed to a greater degree than is true at present. This department is handicapped because of the inability to secure and retain competent teachers in the rural demonstration schools. This department has not been advertised in the state as much as might be done advantageously. If an assistant to the director were secured so that the Director could devote more of his time to going about the state, not only advertising the opportunities for rural teachers, but also meeting the needs of the rural population of Colorado, the College would be materially assisted.

Still another means of enlarging this Department of County Schools, and one which would be valuable to the teaching force of the State, is to extend the work to include some strong, consolidated schools for demonstration and student teaching purposes. Comparatively few of the graduates of this institution at present go into rural schools, so that the extension of this department would interfere in no way with the progress of other phases of the work. In fact this extension would perhaps relieve crowded conditions in the elementary training school, and give opportunity for training more than 36 of the 3000 rural teachers needed in Colorado.

Something should be done to relieve the crowded condition of both the high school and the elementary school. The mere statement of the fact that the high school with an enrollment of 341 is accommodated in six recitation rooms and that the elementary training school has at its disposal 13 recitation rooms, the office and an assembly room, reveals the crowded conditions as to room. The statement that 198 student teachers each quarter seek teaching accommodations in a small training school building with 13 recitation rooms, under eight training teachers, who have enrolled under them 347 pupils, will give some idea as to the overcrowded conditions in the rooms and the over-worked condition of the teachers if the work is done properly. The matter of room for both the high school and the elementary school will be solved satisfactorily

as soon as the west wing of the training school building is completed. Conditions might be improved materially, at present, if one of the city schools of Greeley could be secured for teacher training. The strain of the training teachers who are overworked could be relieved by the appointment of supervising teachers and a teacher of a special room. There are many retarded pupils who should be placed in this special room.

Some such arrangement as just suggested would give greater opportunity for more careful planning of observation and teaching. Courses prerequisite to teaching might then be worked out with some precision and more time could be devoted to class room procedure, testing, accumulative records, and the like. Surely prospective teachers in an up-to-date teachers' College have a right to expect the best in reports, records, etc., that is afforded in education today. The student teacher should be able to find a cumulative record of any child as to health, disease, attendance, mental ability and educational progress as indicated not alone by teachers' marks but by the mental and educational tests, on file in the training school. Not until such records are kept can there be a really efficient survey of training facilities in this institution. A survey without such records becomes mere opinion on the part of the writer or emphasis upon that which should be accomplished, but which is not being done.

Finally then, it might be appropriate to recommend:

1. The organization of a supervisory staff or council for the control of training facilities, which should include not only the principals and directors of the various training departments, but also members of other departments of the institution. General plans should be worked out by this council, and carried into execution by the various directors if one man is not made directly responsible for all teacher training.

2. An internal organization of training facilities in the high school and the elementary school which will insure a more unified method of procedure. This closer organization should result in more definite plans for both observation and teaching; a more careful appointment of student teachers to the work most helpful in their preparation; greater initiative on the part of the student teacher than is allowed at present, thus developing the ability to take responsibility; more definite realization on the part of all teachers whether directly or indirectly concerned that the chief aim of the entire institution is the training of teachers; a definite detailed, printed course of study.

3. The teachers in the Elementary training school should be relieved of some of their work if they are to be expected to do well the work now assigned to them. There is need also of certain supervising teachers and one or more teachers for special work. If some arrangement could be made with the Board of Education of the City of Greeley whereby one building could be taken over for demonstration purposes, the crowded conditions in the training school would be improved.

4. The enlargement of the Rural School Department to include a larger faculty and additional schools for demonstration and student teaching purposes. This would tend, also, to relieve the crowded conditions and over-work mentioned above.

5. Some more definite plan of scoring student teachers and of determining the efficiency of the training teacher is needed. When, by some satisfactory means of measurement, the student teacher is ranked strong, there is a better basis for recommendation. In this connection, it might be well for the student teacher to react to his own and to his critic teacher's teaching by means of some standards or score cards for this purpose. Surely sometimes there should be a written reaction from the director, the critic teacher and the student teacher on the class room work of both the student teacher and the training teacher. (1)

6. A system of permanent and cumulative records and reports

should be developed immediately. Mental and Educational scores of all children enrolled should be kept for permanent use. And certainly the teachers' "Marks" of the children should be found on file. The number of student teachers for each grade, and for the special departments, and the grade given each for the various quarters should be on file. Data for a thorough survey of teacher training facilities in Colorado State Teachers College should be kept on file in the training school building.

7. A longer period of time each day for teaching would probably result in more efficient work on the part of both the student teacher and the children taught. When a student teaches but 25 to 50 minutes each day, he cannot become so well acquainted either with the work of the training school or with the children. If the student teachers who do their teaching in the rural demonstration schools can get away from the institution for four weeks, surely the student teacher who teaches on the campus should arrange to spend a large part of the forenoon or of the afternoon in the training school.

8. Authorities in charge of teacher training institutions probably realize that to prepare teachers well requires more than two years of training. In some states the State Certificate is given, only after several years of teaching experience. In Rhode Island, "No student is to be graduated from that school who has not first, after completing all other normal-school requirements including the period of apprentice teaching, completed also a half-year of fully responsible teaching as a regularly employed teacher in a school system, under the supervision of the normal school." (2) It might be well for the authorities here to consider postponement of the State Diploma until after successful public school experience or after the completion of the four-year course, leading to the degree, Bachelor of Arts in Education.

9. Changes in Colorado State Teachers College are taking place so rapidly, that one survey has scarcely been completed until there is need of another. A survey committee should be continually on the job and ready to recommend changes whenever necessary. There have been so many changes in the training school since the material for this survey was collected, that there is need of another survey at the present time.

10. There is need of definite conscious efforts at cooperation on the part of every member of the faculty of Colorado State Teachers College. This is probably the first and the greatest need.

(1) The plan of appraisal of work done as used in the University of Wisconsin High School, H. L. Miller, Principal, should be studied by persons interested in teacher training—Eighteenth Year Book of National Society for the study of Education—Part I.

(2) Normal School Bulletin—Eastern Illinois State Normal—Number 66. Pp. 41-42.







# Colorado State Teachers College BULLETIN

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## HIGH SCHOOL EXTENSION COURSES

*Supplement to*  
HAND BOOK  
OF THE  
EXTENSION DEPARTMENT



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## AN OPEN DOOR.

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**B**ROKEN educational careers can be mended. The pathway of progress is never blocked. The "New Education" is for all who aspire and are willing to work.

Teachers College of Colorado provides a way in its High School Extension Courses and its Ungraded School for Adults whereby each teacher who is not a high school graduate can complete her high school course, receive a diploma, meet the constantly advancing standards in the teaching profession, know the joy of unrestricted growth and prepare for a larger service.

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**Opportunity is its theme.**

# HIGH SCHOOL EXTENSION COURSES

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SUPPLEMENT TO HANDBOOK

OF

# EXTENSION DEPARTMENT

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THE SIGNIFICANCE OF

# THE NEW EDUCATIONAL STANDARDS

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The new educational program as vouchsafed by recent legislative enactment provides better compensation for trained teachers. It is in accord with the best educational thought of the country, and is supported by the great body of educators in Colorado. It will bring happiness, power and increasing usefulness to those individuals who have conscientiously devoted years of precious time to prepare themselves for the tremendously important responsibility of teaching.

It will vastly increase the dignity of the teaching profession, and will cause to grow up in the minds of the general public an altogether new appreciation of teachers and teaching. But in placing very definite and marked rewards upon professional training it places a stigma upon those who lack it. Their task will be more difficult and their position almost untenable.

It is not wise to oppose educational progress merely because we ourselves have been denied the privilege of the better preparation which is becoming essential. A better plan is to rise to the emergency and by earnest and consecrated effort to remove the troublesome disability. If you have not had four years of professional training and as a result can not claim the highest type of position, remember that Teachers College is ready to help you get that valuable A. B. degree. If you have not had any professional training at all, do not despair but simply call to mind that in Greeley each summer a group of the most efficient men in America are gathered and that they are ready to serve you. If you have taught two or five or ten years without completing your high school course and feel discouraged because of this grim spectre which continually rises before you do not be a "quitter" but "get into the game" and take advantage of the unparalleled opportunities which State Teachers College of Colorado presents to you.

These words "unparalleled opportunities" are not used without careful thought; let us weigh them. These opportunities may be enumerated as follows:

1. High School Extension courses. These are offered through the State High School of Industrial Arts, the high school department of the College, and are described in detail in the latter part of this bulletin.
2. A School of Reviews, held each summer in Greeley as a part of the Summer Quarter of State Teachers College. The word reviews is not used in a narrow or restricted sense. It does not mean that the teachers who take this work are to recall merely such elementary information as they once possessed while in the seventh or eighth grade, but that a most thorough and up to date course in each of the common school branches is to be pursued under the guidance of an expert. While the courses are rich in content they bring to the teachers those deeper and more significant truths of both psychology and pedagogy without which no subject can be presented in the spirit of mastery. All the work done counts for high school credit.
3. A School of Opportunity, called the Ungraded School for Adults, which functions all the year round and is open to all teachers with broken educational careers. The ungraded School for Adults does three things for teachers:
  - (1) Defers classification, and so removes any cause for embarrassment.
  - (2) Gives credit, under proper safeguards, for teaching experience and other forms of helpful community service (see table of equivalents, page 6).
  - (3) Substitutes, within reasonable limits, the power-unit for the time-unit, i. e., the faculty, after the intellectual power of the student has been demonstrated in resident class room work, and verified, when a doubt exists, by standard intelligence tests, reserves to itself the right to make special promotions just as a teacher in the elementary school might promote a child from the fourth to the fifth or sixth grade because of the clear and accurate demonstration of ability to do the work of the more advanced grade. When the promotion involves a transfer from high school to college a special diploma is granted which states that the individual has entered the Ungraded School for Adults and demonstrated to the satisfaction of the faculty that he possesses the intellectual power equivalent to that obtained by the completion of fifteen standard high school units. This diploma is accepted by Teachers College.

Returning now to our words "unparalleled opportunity," do you not agree that no other educational institution has made such careful sympathetic provision to meet the needs of those persons who in accordance with the school law of the state have proved their right to teach in Colorado before they completed a high school course?

## BROKEN EDUCATIONAL CAREERS

Only twenty-five per cent. of the pupils who complete the eighth grade ever enter high school, and many of those who enter fail to finish their high school course. The reasons for this exodus are manifold. Prominent among them are ill-health, the necessity of helping the home, and failure to appreciate the value of an education.

If by the use of the magic wand of some good fairy, the boys and girls in the "teen age" could be transformed into the full stature of men and women in middle life, so that these "boy-men" could see as men see and understand as men understand, and then, after a season, the "boy-men" were changed back into boys with men's vision, they would realize how tremendous is the need of an education.

The five or ten dollars a week, which seems so attractive to the boy, would lose its charm, for he would see clearly that by accepting this he was permitting the golden years of youth to slip away—the years given us to prepare for life. Yes, these boys with men's vision would understand that accepting the employment possible to boys deprives them of the preparation essential to the largest success in life.

Mr. W. J. Bryan has said that it is better to go thru life without an arm than to leave the brain undeveloped. He says that men need their brains more than they need their arms, and yet in almost every village and every rural district there are young men and women who have left school because they did not think that they needed an education. By the time these young people are fifty, experience, which effectively effaces from the minds of men the notion that an education is superfluous, teaches them their folly; but then they realize that it is too late to attain the highest development.

## AN UNGRADED SCHOOL FOR ADULTS

It is never well to point out the mistakes of young people without making clear the way in which their errors may be corrected. The all important question, with reference to wasted educational opportunities, is, therefore, "How can the individual who has reached maturity without completing a high school course and who has come to know the value of a high school education, best attain the desired goal?"

The Ungraded School for Adults is the answer that Teachers College of Colorado makes to this question. Adults feel humiliated upon entering classes with children, and they cannot afford to spend the time in school necessary to take the work which has been omitted, step by step. There is yet another and still more important reason why special provision should be made for the educational needs of adults. It is that adults nearly always excel young people in their intellectual grasp.

The experiences of life have a very high educational value. The various types of schools of America have been slow to recognize the real significance of the fact that life is itself a school in which character can be developed and mental growth attained. By doing any kind of work and doing it well, the mind is made stronger and the character more dependable. The individual of twenty years or more who has taught, worked on a farm, or in a factory, during the years that other boys and girls are going to school, usually manifests upon returning to school far more mental power than the pupils, fourteen or fifteen years of age, with whom he has been compelled to associate in the work of the classroom.

The Ungraded School for Adults provides a special school for adult students. It appreciates the value, in terms of character and intelligence, of the services rendered by the individual to the community and gives a reasonable amount of credit for the same. And, most significant of all, it substitutes the power-unit for the time-unit; that is, when a pupil enters this school he is not classified at once, but is given the opportunity of proving his ability, and the time necessary to complete the high school course is made to depend upon the excellence of the work done. The adult student is entitled to a special promotion as soon as his ability to do college work has been clearly demonstrated. No one can enter the Ungraded School for Adults who has not reached the age of eighteen years.

After the establishment of the Ungraded School for Adults, in the spring of 1914, many mature students took advantage of the opportunity which it afforded. Teachers who had been compelled for economic reasons to teach before completing their high school course found in this school the chance to show the strength which they had attained in many years of struggle and sacrifice, and, because the power which they had gained in life's hard school was taken into account, they were able to continue their education, and so vastly to increase their influence and helpfulness.

The experiment was a success from the first. The students in this group have shown remarkable strength. Their grades have been excellent, their attitude one of intense aspiration, and their conduct has been ideal. They have been enthusiastic, energetic, and untiring in their efforts at self-improvement, and they have rejoiced greatly in the opportunity to realize their hopes.

### **RECOGNITION OF POWER GAINED THRU TEACHING EXPERIENCE**

He who does any piece of work and does it well is thereby better prepared to take up the duties which lie just beyond. If this be true, it must follow that the teacher who devotes the best powers of her life to so organize truth, beauty and righteousness that the child, which follows the same laws of growth as the plant, may appropriate to itself these elements, out of which both mentality and character are developed, will, by the very nature of the process, increase her own mental and moral force, and that this increment of strength will assert itself when the teacher again becomes a student.

The Ungraded School for Adults was founded upon the hypothesis that teaching, together with other forms of life experience, develops both mind and personality. The superiority of the unclassified group as tested by work accomplished is so marked as to leave no doubt as to the truth of this hypothesis. Certain experiments and comparisons now being made are proving conclusively that the maturity and judgment of the experienced teacher do produce mental superiority, and seem to justify recognition in terms of credit of this increment of power which teaching has developed.

The determinations must of necessity be individual. Much depends upon the native ability, aspirations, energy and sense of honor of the individual, and much, also, upon the attitude of the teacher toward her work during the years that she was getting her teaching experience. Only earnest, conscientious effort brings appreciable strength to the life of the teacher.

### **EQUIVALENTS**

The following scale of credits granted for teaching experience is not a promise of what will be given in the future, but a statement of the average credit allowed for teaching experience in the past.

Where the mental power of the individual is to be the basis of determining the amount of credit that can be granted for teaching experience, it is evident that the number of hours of credit can not be determined in advance—else it would be a gift. The individual entering the Ungraded School for Adults must prove his mental qualities before the number of hours that he is to receive for teaching experience can be ascertained.

The table below may, however, be regarded as the average measure of the superiority of the experienced teacher over the regular students (as nearly as this could be determined by the Principal of the High School Department) as demonstrated in class room work, and, therefore, the amount of credit granted, on the average, to various types of teachers.

### TABLE OF EQUIVALENTS

The teacher with rare gifts may receive slightly more than the amount of credit set down in the table of equivalents, while some whose mental superiority does not become apparent may receive much less.

1. Five years or more of teaching experience with first grade certificate=one year of high school credit.....60 hours
2. Three years of teaching experience with first grade certificate=three-fourths of a year of high school credit.....45 hours
3. Two years of teaching experience with a first grade certificate=one-half of a year of high school credit.....30 hours
4. Three years or more of teaching experience with a second grade certificate=one-half of a year of high school credit.....30 hours
5. One year of teaching experience with a first grade certificate, or two years with a second grade certificate=one-fourth of a year of high school credit.....15 hours
6. No recognition is given to third-grade certificates except in those cases where the individual shows marked ability in certain lines and failure in other lines is clearly due to the fact that the individual did not have the opportunity of attending good schools.

### REFERENCES

It is advisable for all teachers who expect credit for teaching experience to forward with their application for advanced standing (see definite instructions on page 10) a list of references. This list should include.

- a. Superintendents.
- b. Principals.
- c. Boards of Education.
- d. Business Men.

### PREPAREDNESS

Are your hopes for the future limited by a lack of educational preparation? Is your horizon contracted by the necessity of going to work before completing your high school course?

Are you getting the most out of life for yourself—the greatest possible enjoyment, the highest possible salary?

Do you want to share in the joy of service to your state, to your community, to your friends? in the joy of work well done? If so, better training points the way to service, and service, whether in the home or out of it, is the highest possible privilege you can claim.

There is a mental and moral preparedness, without which opportunities avail nothing. There are ready places for ready men and ready women. The learned attorney is never without clients. The skilled physician always has patients. Likewise the trained teacher, who understands, in a measure, the content of the child's mind and the laws that determine the child's development, is sought after to the ends of the earth.

The responsibility of preparation rests with each individual. Those who have determination and spirit will find a way, while the inefficient will ever make excuses as in the past. Yet, in very truth, the higher institutions of learning have made it possible for everyone, who will, to receive a liberal education. To those who would prepare for larger service the way is plain, and the reward in terms of happiness and growth inevitable.

### **THE COLUMBIA OF THE WEST**

No institution is rendering or can render as valuable service to the teachers of Colorado as Teachers College. Its plans are ever unfolding. No single group is to be neglected. The highly organized Extension Department brings the means of a higher education to the homes of the teachers. The High School Extension Courses meet the needs of those who have been compelled by economic pressure to leave school, and the Ungraded School for Adults recognizes the mental power which teaching experience has developed and so shortens the time necessary to complete the high school course, and in the college itself innumerable plans are being developed for the happiness, growth and inspiration of all teachers who are directly or indirectly connected with the great "Columbia of the West."

### **PREVIOUS TRAINING IS RECOGNIZED**

Since the taxes of all the people go to support the educational institutions of the state, State Teachers College feels under obligation to supply to the fullest extent of its ability the educational needs of the people of the entire state.

The College stands upon the broad democratic principle that each community should introduce into its local high school those subjects which, in the judgment of the people, will best prepare its graduates for the social and economic environment in which they must live.

For this reason the work done in the smaller high schools is accepted where teaching force and equipment are at all adequate to the needs of the schools in question, as the equivalent of the work done in its own High School Department.

When in doubt as to the value of courses previously taken, the individual is given a trial and the ultimate decision as to the amount of credit to be given for said courses depends upon the quality of the work done after the pupil has enrolled in the High School Department.



## A CONNECTING LINK

The "High School Extension" Courses, which are described in detail in the pages which follow, enable the capable and aspiring teacher to increase the amount of school work which she can accomplish each year and thus to shorten the time necessary to complete a high school course.

They constitute, in fact, a connecting link between the needs of the rural teacher, who must of necessity teach during the winter months, and the summer season of the Ungraded School for Adults, in which her previous training and her experience find full recognition.

## THE SUMMER SESSION

The Summer School is held at a time when teachers are free from the responsibilities of the school room and can therefore devote their whole energy to self-improvement.

Greeley is a delightful place to study. Separate classes, each taught by an expert, are organized for adult students and the courses are planned so that teachers can make the maximum progress under conditions that are the most congenial.

## FEES

The Extension Service of the Colorado State Teachers College, aspiring to make its courses in every way equivalent to residence work, and realizing the necessity of thorough standardization, has been compelled to increase its rates. The compensation to Faculty members for the preparation of study units and the careful grading of same was so meager that it did not adequately remunerate them for high class work and painstaking effort. The department could not under these circumstances justly insist upon a number of highly desirable reforms in the service.

In order therefore that progress may not be impeded and that compensation may be just, the old rates were changed September 1st, 1920, and the price now charged for extension courses is \$24 per unit of forty-five study lessons.

A standard unit consists of fifteen quarter hours. This means that a standard unit costs \$24. Fifteen standard units are required for graduation. The resident student spends four years, in many cases away from home, at high rate of expense to secure a high school education.

A quarter hour is divided into three study lessons. When the twenty-five per cent which goes to the College is subtracted from this amount it means that the instructor receives less than fifty cents for both the preparation and grading of any particular study lesson.

Students may forward one-third of the \$24 at the time of beginning each group of 15 study lessons.

## HOW TO ENROLL

First, fill out the combined enrollment and advanced standing blank found on page 10) then detach the same, and mail together with check for desired course. (Remember that no enrollment will be made without payment of fees.)

Before sending in any study lessons read carefully the section on fees—also the limitations on correspondence work, page 11, and the special instructions in connection with extension courses, page 12, and get a conception of the importance of good form by studying the "sample page of manuscript," page 11.

No student will receive an excellent grade who does not get her work in in good form. In all cases the form of the manuscript will be a factor in determining the grade.

APPLICATION FOR CORRESPONDENCE STUDY  
(High School Credit)  
To Director of Extension Service  
Greeley, Colorado

Date.....

Name.....

Age..... (Not open to persons under 18 years of age.)

Post Office Address.....

Present Occupation.....

High School Attendance:

I attended high school in the city of.....

State of..... for a period of..... years and  
..... months. List any additional high school attendance on the  
following two lines, being careful to specify names of cities and state,  
.....  
.....

I have made..... standard units. (A unit is a subject taken five times  
a week, each recitation being forty-five minutes long, for a period of 9  
months.) If your units vary from the standard units, tell in what par-  
ticular and to what extent.....  
.....  
.....

I have taught..... years (8 or 9 months being counted to the  
year) and..... months.

I have held or now hold a..... grade certificate, which expires  
in the month of....., 192.....

I can furnish certified credentials of all work of high school grade done  
in the past (credentials are signed statements, naming the subjects  
studied, the grades received, and signed by the Secretary or Principal  
of the school where the work was done.) It should be definite, accu-  
rate, and carefully made out. It is wise also to forward credentials  
together with the recommendations called for on page 7 to the Extension  
Department of the State Teachers College at the same time that  
the application for enrollment is mailed.

Remember that no enrollment can be made without the payment of  
fees (see page 9.)

I desire to enroll for course numbered..... (Give Roman  
numbers) and entitled.....  
Be definite and clear in naming courses.

Signed.....

Note. Be sure to note carefully the limitations on high school ex-  
tension set forth below. All persons enrolling are held responsible for  
the facts therein stated.

## LIMITATIONS ON HIGH SCHOOL EXTENSION COURSES

1. No diploma can be secured wholly by extension work. Not more than six units can be earned by extension study. No student is permitted to take more than two units in any given year or to study more than two subjects at any given time. The best way to make rapid progress toward graduation is to use the extension courses in the winter while employed a part of the time at other things and then to take advantage of the summer school organized each year at Greeley by the State High School of Industrial Arts. This makes it possible for a student to make three and a third units each year and to graduate in five years.
2. The extension courses are not intended for people under eighteen years of age. It is more difficult to do excellent school work by extension than in residence. It takes strength of purpose, determined and persistent effort, and marked self-control, to succeed when no teacher is present to see that the task is finished on time. It is not reasonable to expect boys and girls of fourteen or sixteen years of age to possess these qualities. It has been said and truly said that many of the strongest men and women in our country obtained their education through the aid of correspondence courses. This is, however, only another way of saying that the weak and inefficient never finish a course by correspondence. They let a thousand things in their environment interfere. They can not help but neglect their studies when all power of control comes from within, but when a man or woman is found who can do this, he certainly possesses the essential elements of greatness. A careful self examination ought to precede the actual step of enrolling for extension study. If you have not the force of character to stick it is a waste of time to begin.
3. Students must complete a course within nine months of the time of enrollment. Failure to do so means that the money paid in for enrollment will be distributed between the college and the instructor and the account closed.
4. In all cases the detailed instructions relative to method of study and preparation of manuscript must be strictly adhered to.
5. Money will not be refunded for courses after the first three recitation papers have been read and graded by the instructor; or in any event after the expiration of nine months from the date of enrollment.
6. Students who have completed a large part of their work in some other high school of acceptable grade can not finish in State High School of Industrial Arts entirely by correspondence work. **At least one quarter of residence work is required.**

### SAMPLE PAGE OF MANUSCRIPT

Albert Thompson,  
Silverton, Colo.

1

### PHYSICAL GEOGRAPHY.

#### I

A political division of the earth is one in which government and laws are uniform. It is the product of human society.

A natural division of the earth is one in which the non-human conditions, such as vegetation, structure, relief, climate and animal life are uniform.

## II

The boundaries of political divisions are definite and well known. They are recorded in treaties and laws made by the various governments concerned.

The boundaries of natural divisions are often vague and uncertain, depending upon varying natural conditions.

## III

Natural divisions derive their greatest importance in geography from their relations to human affairs. And since people can get off the earth as easily as they can escape from the influence of natural environment, the main problem of geography is to discover how and to what extent human life is related to natural environment.

## IV

- I. Natural provinces.
  1. Intertropical.
    - a. General characteristics.
    - b. Types.

### HOW CORRESPONDENCE COURSES ARE CONDUCTED

The Extension Department sends the student the first four study units of the course he has chosen and the book needed with them. He studies the book as directed and works out his first **recitation paper**—covering the work outlined in the first study unit. He mails this to the Extension Department as soon as it is finished—and waits for its return before sending in his second recitation paper, so that he may have the advantage of the teacher's suggestions. The date on which the paper is received in the Extension Department is recorded on the student's enrollment card and the paper is passed to the instructor in charge at once. When the instructor has read, commented on, and graded the paper he returns it to the Extension Department, where the date of its return and the grade given it are recorded on the enrollment card. The first recitation paper is then returned to the student with the **fourth study unit**, after which the student may mail to the Extension Department his second recitation paper together with **any additions required by the instructor** to his first recitation paper. The second paper passes through the same process and is mailed back to the student with the fifth study unit, and so on till the course is completed.

### SPECIAL INSTRUCTIONS FOR THE PREPARATION OF MANUSCRIPTS

If possible to obtain it, use clean white paper that is eight and a half inches wide by eleven inches long.

Write with pen and ink.

Write plainly and use one side of paper only.

Leave a somewhat wider margin at the left side of the paper than at the right.

Number each page at the top near the right margin.

Designate problems and answers to questions by Roman numerals placed in the middle of the page.

When outlines are called for, use care in numbering and indenting sub-headings.

Do not roll your manuscripts. Send them flat or folded.

## COURSES AND TEXT BOOKS

### I. First Year Algebra—

Text-book—Elementary Algebra.  
Author—Slaught and Lennes.  
Publisher—Allyn and Bacon, Chicago.  
Price—\$1.00.  
Credit—One unit, or fifteen hours.

### II. Second Year Algebra—

Text-book—Intermediate Algebra.  
Author—Slaught and Lennes.  
Publisher—Allyn and Bacon, Chicago.  
Price—75 cents.  
Credit—One unit, or fifteen hours.

### III. English History—

Text-book—A Short History of England.  
Author—Edward P. Cheyney.  
Publisher—Ginn and Co.  
Price—\$1.96.  
Credit—One unit, or fifteen hours.

### IV. High School Geography—

Text-book—High School Geography.  
Author—Charles R. Dryer.  
Publisher—American Book Co.  
Price—\$1.64.  
Credit—One unit, or fifteen hours.

### V. General Science—

Text-book—General Science.  
Author—Caldwell and Eikenberry.  
Publisher—Ginn and Co., Chicago.  
Price—\$1.48.  
Credit—One unit, or fifteen hours.

### VI. Textbooks—

#### a. The Short Story—

Text-book—The Short Story.  
Author—E. A. Cross.  
Publisher—A. C. McClurg, Chicago.  
Price—\$2.00.

#### b. The Novel—

Text-book—Silas Marner.  
Author—George Eliot.  
Publisher—Houghton Mifflin, Chicago.  
Price—30 cents.

Text-book—The Marble Faun.  
Author—Hawthorne.  
Publisher—Houghton Mifflin, Chicago.  
Price—60 cents.

Text-book—Quentin Durward.  
Author—Scott.  
Publisher—Houghton Mifflin, Chicago.  
Price—50 cents.

Text-book—The Tale of Two Cities.  
Author—Dickens.  
Publisher—Houghton Mifflin, Chicago.  
Price—50 cents.

Text-book—The Spy.  
Author—Cooper.  
Publisher—Houghton Mifflin, Chicago.  
Price—50 cents.  
Text-book—The Light That Failed.  
Author—Kipling.  
Publisher—Doubleday, Page & Co., New York.  
Price—\$2.00.  
Text-book—Ramona.  
Author—H. H. Jackson.  
Publisher—Little, Brown & Co., Boston.  
Price—\$2.00.  
Credit—One unit, or fifteen hours.  
Text-book—Cranford.  
Author—Mrs. Gaskell.  
Publisher—Houghton Mifflin, Chicago.  
Price—40 cents.  
Credit—One unit, or fifteen hours.

**VII. Applied Botany—**

Text-book—Botany for High Schools.  
Author—G. F. Atkinson.  
Publisher—Henry Holt & Co., New York.  
Price—\$1.45.  
Credit—One unit, or fifteen hours.

**VIII. Civics and Citizenship—**

- a. Text-book—Government and Politics in the United States.  
Author—Wm. B. Guitteau.  
Publisher—Houghton Mifflin Company.  
Price—\$1.68.
- b. Text-book—Colorado Civil Government and History.  
Author—Hatch and Parsons.  
Publisher—Herrick Book & Stationery Company, Denver.  
Price—\$1.25.  
Credit—One unit, or fifteen hours.

**IX. Inductive Arithmetic—**

Select one.  
Text-book—Practical Arithmetic.  
Author—L. D. Harvey.  
Publisher—American Book Company.  
Price—76 cents.

Text-book—Standard Arithmetic, Book III.  
Author—Hamilton.  
Publisher—American Book Company.  
Price—72 cents.

Text-book—Standard Arithmetic.  
Author—Wm. J. Milne.  
Publisher—American Book Company.  
Price—84 cents.

Text-book—Progressive Arithmetic, Book III.  
Author—Wm. J. Milne,  
Publisher—American Book Company.  
Price—68 cents.  
Credit—Ten hours, or two-thirds of a unit.

**X. American Literature—**

Text-book—Three Centuries of American Literature.  
Author—Newcomer, Andrews, Hall.  
Publisher—Scott, Foresman & Company, Chicago.  
Price—\$2.40.

Text-book—American Literature.  
Author—W. J. Long.  
Publisher—Ginn & Company.  
Price—\$1.28.

or

Text-book—American Literature.  
Author—R. P. Halleck.  
Publisher—American Book Company.  
Price—\$1.40.

Credit—One unit, or fifteen hours.

- XI. America's Relation to World Problems—**  
Text-books—World War, Side Lights on World War, The League of Nations and the Peace Treaties.  
Author—William L. Nida.  
Publisher—Hale Book Company, Oak Park, Illinois.  
Price—36c each, with paper cover; 60c with cloth cover.  
Credit—One unit, or fifteen hours.

- XII. Home Economics.**  
Text-books—Foods and Household Management, Shelter and Clothing.  
Author—Kinne and Cooley (author of both).  
Publisher—MacMillan & Company, Chicago.  
Price—\$1.40 each.  
Credit—One unit, or fifteen hours.

- XIII. Plane Geometry.**  
Text-book—Plane Geometry.  
Author—Wentworth-Smith.  
Publisher—Ginn & Company.  
Price—\$1.24.  
Credit—One unit, or fifteen hours.

- XIV. Typewriting—**  
Text-book—Fritz-Eldridge Expert Typewriting.  
Authors—Rose L. Fritz, Edward H. Eldridge.  
Publisher—American Book Company.  
Price—\$1.20.  
Credit—One unit, or fifteen hours.

- XV. Bookkeeping—**  
Text-book—Bookkeeping and Accountancy.  
Author—H. M. Rowe.  
Publisher—H. M. Rowe Publishing Company.  
Price—\$1.65.  
Credit—One unit, or fifteen hours.

- XVI. Survey of English Literature.....**To be ready Jan. 1, 1922.  
**XVII. Elements of Sociology.....**To be ready Jan. 1, 1922.  
**XVIII. Applied Mathematics .....**To be ready Jan. 1, 1922.  
**XIX. Advanced English Composition.....**To be ready Jan. 1, 1922.

Information relative to text-books, authors, publishers, etc., will be furnished the student, relative to Courses XVI, XVII, XVIII, and XIX, at the time the study units are forwarded to him. The time that these will be ready is indicated above.

## ALGEBRA—COURSES I AND II

### General Instructions—

The work of this course is divided into two years of three quarters each. Five hours credit is given for each quarter or two units for the two years.

The student should read the author's explanations very carefully and study the illustrative problems thoroly before attempting to solve any of the exercises. **Learn** each of the principles printed in bold face and numbered from I to XVIII as soon as it is reached in the work. Apply these principles to all the exercises following.

Work out in neat form and send in each lesson as outlined. If there are problems you cannot solve, either write for special help stating exactly your difficulty or work them out as far as possible in their proper place on the lesson sheet and make a note there concerning your difficulty.

A written test will be required at the end of each term, questions for which will be sent by the Extension Department.

Three-fourths of the problems in each lesson must be correct or the entire lesson must be done over. If several problems only are incorrect these must be corrected and sent in with the next lesson unless otherwise specified.

#### General Divisions—

- Algebra (1) Exercises from page 1 to page 107, 5 hrs. credit.
- Algebra (2) Exercises from page 108 to page 206, 5 hrs. credit.
- Algebra (3) Exercises from page 207 to page 296, 5 hrs. credit.
- Algebra (4) Exercises from page 1 to page 93, 5 hrs. credit.
- Algebra (5) Exercises from page 94 to page 179, 5 hrs. credit.
- Algebra (6) Exercises. Important subjects following page 179 and general review.

#### (Model Lesson)—

#### FIRST TERM ALGEBRA—LESSON I

Name \_\_\_\_\_

Date \_\_\_\_\_

#### Introduction to Arithmetic Pages 2 and 3

- I. Volume=L. W. H.  
     " "  $6 \times 4 \times 3$ .  
     " " 72 cu. in.   Ans.
- II. Volume=L. W. H.  
     " "  $35 \times 25 \times 15$ .  
     " " 13,125 cu. ft.   Ans.
- III. And so on for the whole set.

#### Algebraic Operations Page 4

- I.  $a+b$ .   Ans.  
     $ab$ .    Ans.
- II.  $m$   
    —  
     $m-n$ .   Ans.

(Double columns may be used where the work is short).

#### ENGLISH HISTORY—COURSE III

In planning this extension course in English History we have attempted to direct the attention of the student along lines which indicate the greatest development of these people. To this end we have chosen eight major influences in their history, subdividing these headings into forty-five study units, each study unit having in turn its sub-headings as a guide for the student. In working out this course the student will be following the struggle for such basic principles as tolerance, democracy, industrial liberty, freedom of speech, or of the one great principle of liberty in a variety of applications.

#### (Model Lesson)—

Below is worked out a possible paper submitted on Study Unit III under the major topic of Religious Development, and a lesson heading of Catholic Church Organization.



## ORGANIZATION OF CHURCH

Time—

670-690.

Organizer—

Theodore of Tarsus.

Plan—

Head of Church—

Pope.

Districts—

1. England divided into the two archbishoprics of York and Canterbury.
2. Archbishoprics divided into fifteen dioceses or bishops' sees.
3. Bishops' sees divided into many parishes.

Officers of Church—

1. Pope.
2. Archbishops.
3. Bishops.
4. Archdeacons.
5. Canons.
6. Priests.
7. Stewards.
8. Teachers.
9. Clerks.

Executive Authority—

1. Pope and Higher Church Officials.
2. Church Courts.

Legislative Authority—

1. Church Officers.
2. Decisions of Courts.
3. Canons.

Judicial Authority—

1. Church Courts—
  1. Time—  
Started 1066.
  2. Charges—  
Heavy to help support church.
  3. Jurisdiction—
    1. Wills.
    2. Inheritance.
    3. Widows and orphans.
    4. Questions of morality.

## OTHER ORGANIZATIONS

Monasteries—

1. Purpose—
  1. Oath, Chastity, Poverty, Obedience.
  2. Teaching.
2. Supported—
  1. Work of members at first.
  2. Later gifts of property made them very wealthy.
3. Numbered—
  1. Many hundred.
4. Influence—
  1. For all that was good and fine until wealth brought corruption.
  2. Corruption brought disaster.

## HIGH SCHOOL GEOGRAPHY—COURSE IV

The aim of modern Geography is to get a view of the earth primarily as the home of man. The earth is not only the present home of man but it is the garden in which he has grown, and also the environment in which still higher standards of attainment are possible. This course attempts to preserve this human point of view in the study of geography and so concerns itself with the leading facts and principles of geography which are factors in the human struggle for better living. The first part is devoted to Physical geography, which studies the earth as it would be if man had never lived upon it. The second part deals with Economic Geography. In this man's use of the materials of his environment is the basis for study. In the third part, dealing with Regional Geography, the earth is considered as consisting of a number of kinds of natural provinces, the environment affecting the economic adaptations being broadly similar in all the provinces of a given kind. (Modern Lesson)—

### HIGH SCHOOL GEOGRAPHY, UNIT I

In Chapter I there is given a general discussion of the Physical Geography of the earth, sun, and moon, together with brief explanations of latitude and longitude, the distinction between solar and civil days, standard time and the calendar, and some very interesting and helpful discussions of maps and map projections.

#### Recitation Paper—

1. Name and discuss fully the various spheres which make up the earth.
2. Describe the sun.
3. Using a diagram, illustrate fully parallels and meridians and explain the causes of seasons.
4. What is the source of the energy which keeps things alive and moving on the earth?
5. Explain standard time, the calendar, solstice, equinoxes.
6. Name, describe, and illustrate two forms of map projection.
7. Project a map of some section of your immediate neighborhood.

### GENERAL SCIENCE—COURSE V.

There are certain fundamental principles of science which cannot be stated too emphatically or too often. A real public service has been rendered by the introduction into the public schools of the subject of general science.

The aim of this course is to make a selection of topics that will stimulate an interest in common things. Topics of real scientific interest and importance may be given less attention in order that practical topics may be accorded a fitting precedence.

To further the aim simple demonstrations and observations are made the strong points of the course. In view of this fact an attempt has been made to make each lesson unit equally interesting, without sacrificing scientific accuracy.

## GENERAL SCIENCE, UNIT I

Text, Caldwell and Eikenberry's General Science, Chapter 1.

Some characteristics about air—

Air as material—

Its composition, weight and general characteristics.

Working under water—

The laying of foundations, caisson and shaft work.

Diagram illustrating methods of working under water.

Weight of air—

Methods of determining weight of air.

The use of the barometer.

General characteristics of the aneroid barometer.

Air pressure—

Measurements of air pressure.

Altitude and air pressure.

Effects of temperature—

Use and description of the thermometer.

Fahrenheit and centigrade thermometers.

General effects of expansion.

Convection currents.

Hot air furnaces.

Chimneys.

Importance of air temperature.

## ENGLISH LITERATURE—COURSE VI a, THE SHORT STORY

### Description of Course

The extension work offered in English Literature is a reading course in which fifteen short stories and six novels are to be read. A written report of each is required. One unit or fifteen hours credit is given for the satisfactory completion of the work. The study of the short stories, which constitutes one-third of the course, should be done first. (Study unit syllabi will not be furnished for this course. The instructions which follow are to take the place of the syllabi.)

#### 1. Preliminary Study—

Read carefully Chapters 1-8, inclusive. This is necessary in order to know how to study the short story. No written report of the reading is required. The written reports of the stories will show whether or not the preliminary reading has been done thoroly.

#### 2. Plan for study of the short story—

Use these questions as suggestions pointing the way to your study of each short story. Combine the answers, making a unified essay of from three to four pages.

1. Write a brief synopsis of the story in not more than three paragraphs.
2. State the theme. Is it true?
3. What is the tone of the story; tragic, serious, humorous, farcical, poetic, dreamy?
4. Is this a story of character, incident, or setting?
5. Make a list of the characters: a. The principal characters; b. Those of secondary importance; c. Those used merely as background.
6. Which of the characters have distinct individuality? Are the characters true to life? Which is your favorite? Why?
7. Is the setting interesting for its own sake, or is it used merely as a background for the characters and incidents?
8. What seems to have suggested the title?
9. What is the author's point of view?

10. The most effective short story is one that employs **characters** highly worth knowing and thru these works out a **great theme** upon a **stage** (background or setting) suited to the **action** and the people of the story. Does the story you are studying fall short in any of these four specifications? Comment **at length** upon this question.

**3. Directions—**

Write on one side of theme paper, using pen and ink. Submit one report at a time.

4. Following is the list of short stories to be studied. The report of each story constitutes one study unit.

First Study Unit—The Necklace.

Second Study Unit—The Prodigal Son.

Third Study Unit—The Princess and the Vagabond.

Fourth Study Unit—On the Stairs.

Fifth Study Unit—The House Opposite.

Sixth Study Unit—The Adventure of the Speckled Band.

Seventh Study Unit—Will o' the Mill.

Eighth Study Unit—Martha's Fire Place.

Ninth Study Unit—Dr. Heidegger's Experiment.

Tenth Study Unit—Three Arshins of Land.

Eleventh Study Unit—The Father.

Twelfth Study Unit—Where Love Is, There God Is Also.

Thirteenth Study Unit—The Mysterious Bride.

Fourteenth Study Unit—The Taking of the Redoubt.

Fifteenth Study Unit—The Truth of the Oliver Cromwell.

**Course VI b—The Novel**

**1. Directions—**

This is a reading course in which six novels are to be read. A written report of each is to be made according to the study plan given below. Write on one side of theme paper, using pen and ink. Submit one report at a time.

**2. Plan for study of novel—**

Use these questions as suggestions pointing the way to your study of the novel. Combine the answers, making a unified essay of from five to six pages.

1. Write a two or three-page synopsis of the story.
  2. What is the theme or purpose?
  3. What is the setting of the story;
    - a. Time? b. Place? c. Background?
  4. Study of characters—
    - a. Are they true to life?
    - b. Are they worth knowing?
    - c. Which is your favorite? Why?
  5. Write a brief sketch of the author—
    - a. When and where was he born?
    - b. When did he write this novel?
    - c. Does this story throw any light on his life or personality?
3. Following is the list of novels to be read in the order indicated.

Each report constitutes **five** study units.

Study Units One to Five—Silas Marner.

Study Units Six to Ten—The Marble Faun.

Study Units Eleven to Fifteen—The Tale of Two Cities.

Study Units Sixteen to Twenty—Quentin Durward.

Study Units Twenty-one to Twenty-five—The Spy.

Study Units Twenty-six to Thirty—Select one—

The Little Minister.

The Light That Failed.

Cranford.

Ramona.

## APPLIED BOTANY—COURSE VII

The aim of the extension course is to bring the essential facts of botany to the student who, for some reason, is not attending high school. These lessons aim to be a guide to a practicable course in facts and principles of the subject and to bring the study of botany into closer touch with the business of life by stressing its relations with agriculture and economics. An attempt is made, as far as possible, to have botany closely correlated with the home activities.

The course presupposes no previous study of the subject in any formal organized classroom work. In working out experiments and in giving questions an endeavor has been made to select materials from the environment of the student.

In order, as near as possible to secure exactness, completeness, and permanency in the student's work, he is required to make full records of his answers before the results are submitted to the teacher.

(Model Lesson)—

### Applied Botany, Unit No. I

#### Assignment—Chapters I and II.

1. Define organism, cell, tissue, protoplasm.
2. Contrast and compare plant and animal organisms.
3. In division of labor of the plant, point out the work done by each tissue. Why is this an economic process?
4. Draw a diagram showing the structure of the cell. Label each part.
5. Place some seeds (beans, squash, pumpkin, or peanut) in water and examine them hours later. Describe each organ mentioned in chapter two.
6. Point out the same parts in a grain of corn. How does corn differ from the seeds used in 5?
7. What three conditions are necessary for the germination of seeds?
8. In the light of Lesson I, answer this question: Why does the farmer plow his field?

### CIVICS AND CITIZENSHIP

This course deals with government and politics in the state and nation with considerable emphasis upon the implications of citizenship. It is divided into two parts: A, dealing with Federal Government and politics, and B, dealing with state government. Besides the texts for the course, it will be helpful to the student to have supplementary material with which to work. We suggest one of the following books as supplementary:

Government in the United States, by Garner—American Book Company.

American Government, by Magruder—Allyn & Bacon.

Advanced Civics, by Forman—The Century Company.

The use of current event magazines such as the Independent, Literary Digest, The Outlook, World's Work, Review of Reviews, is also advised. In addition, the keeping of a scrap book in which clippings concerning events which are closely related to the operation of the government and the duties of citizenship should be kept is advised.

#### Course VIII a—National Aspects

(10 hours credit)

The text is Guitteau's Government and Politics in the United States. This course will study quite intensively the origin and functions of local government and the origin and operation of the Federal Government. This course is more than a study of the outline of the Constitution and endeavors to show how the government operates in the actual everyday life of the citizen. The citizen's duty to society and to the state are emphasized. The completion of this course allows a credit of ten hours.

(5 hours credit)

The second part of the course deals with the government of the state of Colorado. The text of this course is Colorado Civil Government and History by Hatch & Parsons, published by Herrick Book and Stationery Company of Denver. The three departments of the state government, the Legislative, Executive, and Judicial, are carefully studied. Then the local government units, the county, the towns and cities, and the school districts are considered. Following this state institutions, elections, revenues, and public indebtedness are taken up for discussion. The completion of this course allows a credit of five hours.

### Inductive Arithmetic—Course IX

Arithmetic is the science of the relation of numbers. It is not the art of juggling figures. Many teachers make it little more than an endless description of process, which the child is to memorize. The child's reasoning faculty is not appealed to with the inevitable result that at last these manifold descriptions grow dim, become confused, and the pupil knows nothing of the real science of arithmetic and is hopelessly inefficient in the ability to use the little knowledge he may possess.

This course makes reason the corner stone upon which the science of arithmetic is erected. The student is taught to think arithmetic with the earnest hope that this method will be pursued in the class room. No rules are taught, but each situation involved in a particular type of problem is analyzed with the purpose of getting the pupil to see the reason for the operation performed. This method gives independence of thought, a deep insight into arithmetical relations, and in a comparatively short time a thorough mastery of the science of arithmetic.  
(Model Lesson)—

### Arithmetic—High School

#### Study Unit No. XII. Relation of Decimals to Common Fractions.

Instructions—The most important thing in the study of decimals is to get a clear conception of their relation to common fractions. When the student has mastered this relationship, he should have little trouble with decimals.

- a. Make yourself familiar with the names of the decimal columns up to the trillionth's place.
- b. What is the difference between 7 tens and 7 tenths?
- c. Add four hundreds and four hundredths.
- d. Multiply 9 thousands by 25 hundredths.
- e. Divide 775 tens by 75 thousandths.
- f. Express as decimals the following common fractions:  
 $\frac{3}{10}$ ,  $\frac{3}{1000}$ ,  $\frac{23}{100000}$ ,  $\frac{768}{100,000,000}$ .
- g. What is the difference between  $\frac{54}{10}$  and 5.4?
- h. What is the difference between  $5\frac{4}{10}$  and  $\frac{54}{10}$ ?
- i. In what two ways can you read 5.4?

#### Note 29.

The word difference can be used in a double sense. The restricted use of the word as in "b" implies a quantitative difference or remainder. The more comprehensive meaning of the word denotes merely a descriptive comparison. In its more general sense the word points out similarities and dissimilarities. The attitude of mind, suggested by this more general usage of the word, which weighs, compares, and infers, is very valuable to the student of arithmetic.

**Note 30.**

There is no quantitative difference between  $5 \frac{4}{10}$ ,  $54/10$ , 5.4. The formal difference often becomes so fixed in the minds of teachers and pupils as to interfere with freedom and flexibility of thought and expression. In the historical development of decimals, it is probably true that the expression 5.4 was always read as a mixed number; in this fashion, "five and four tenths", but there seems no good reason why we should not read 5.4 as an improper fraction; thus, "fifty-four tenths."

There are three excellent reasons for the proposed extension of the old mathematical tradition. Reading and writing decimals as improper fractions, (1) saves time, (2) increases flexibility and freedom of thought, (3) correlates in a more direct and helpful way with both whole units and fractional units.

**Note 31.**

The whole science of decimal fractions rests upon the simple device of **making a point indicate the column in which the right hand figure of the numerator is to stand.** Remember that the decimal point has no other function, but think of this function long enough and patiently enough to get its real significance.

**Note 32.**

The method of reading decimals as improper fractions, though not so common as the method of reading them as mixed numbers, enables us to **read every decimal just as if it were a whole number, and then to pronounce the denominator indicated by the decimal point.**

**Note 33.**

You can write any decimal just as if it were a whole number, provided, you make the decimal point express the denominator correctly. With this method pupils learn to read and write decimals with great rapidity, and are conscious all the time of the significant unity between decimals and improper fractions. Instead of whole numbers and decimals being two distinct things on either side of a stone wall, they become one thing—a thing the child has known from the very beginning of his experience with fractions.

### **AMERICAN LITERATURE—COURSE X**

The course in American Literature which is offered by extension is a study of literature through history, biography, and reading of literary selections by characteristic writers. It aims to show the trend of American thought and the changing ideals through the three centuries.

The course is divided into three parts of fifteen units each, each part carrying five credit hours. The third part is given up to later nineteenth and to twentieth century literature for the benefit of those more interested in a study of recent and current writing. No single text book is available for this study.

**(Model Lesson)—**

#### **American Literature, Unit I William Cullen Bryant**

"American literature of the nineteenth century was fortunate in the fact that it had at the outset of its approach to maturity, in the work of Bryant and Irving, standards of form in poetry and prose."

Bryant may lack passion, but there is dignity and correctness and high spiritual value in his writing.

### **Nature and Life.**

Read **Thanatopsis**. This serious poem was practically completed before Bryant was eighteen years old. What in the life and training accounts for the religious and seriously grave tone of the poem? What lines do you keep in your memory that are worth quoting often?

What was the occasion for writing **To a Waterfowl**? Picture the scene for yourself. What is the stanza that shows how he drew comfort for himself from this solitary picture?

Read **A Forest Hymn, Green River, To a Fringed Gentian, The Death of the Flowers** for the grave but beautiful view of nature and the application which the poet makes to life. State the best thought in each. Read each of these poems aloud to get the rhythm in which each is written. How do they compare in rhythm with **Robert of Lincoln**? **Patriotic.**

What had caused the change in Bryant's attitude toward life as it is reflected in his patriotic poems? State, if you can, what his attitude now became?

### **The Song of Marion's Men.**

What was the circumstance that Bryant is commemorating? How does he commend the men?

### **The Battle Field.**

Read it all and learn the oft quoted stanza on Truth. Write it from memory.

### **Death.**

**Waiting by the Gate.** Show whether this reflects the real feeling of Bryant. At what time of his life? What others of his poems speak of death? How does this one differ in content and feeling? Was Bryant during his long life a dreamer or a man of action?

## **AMERICA'S RELATION TO WORLD PROBLEMS—COURSE XI**

This course is intended to give students an idea of causes of the World War and reasons for entrance of each country. The industrial and commercial relations between England, Germany, and France will be especially emphasized; also the close connection between all nations under our present means of communication. Special attention will be placed upon the reasons for the attitude of the United States concerning all important questions. New methods of warfare, countries originating them, and advantages and disadvantages will be considered.

The first fifteen lessons will cover the work from the outbreak of the war until United States enters; the second fifteen months from the entrance of the United States until the signing of the armistice and a brief survey of the work of the Peace Conference. These lessons are now ready. The third fifteen lessons will cover the Treaty, League of Nations and work of the League. This will not be prepared until after the United States decides upon her policy in connection with international relations. It probably will not be ready before fall of 1921. The course will carry ten hours credit at present. After September 1, 1921, at which time the last fifteen study lessons are to be complete, it will then be a 15 hour course.



(Model Lesson)—

America's Relation to World Problems, Unit II  
The Kaiser's Dream of World Empire

- I. Kaiser Supreme.
  - A. Power of appointment.
  - B. Power over army and navy.
- II. German Colonies.
  - A. Location.
  - B. Contrast with English Colonies.
  - C. Effect of lack of ports.
- III. Great waterways of world.
  - A. Ownership.
    1. Significance.
- IV. Naval stations of world.
  - A. Ownership.
    1. How used?
  - B. Contrast English and German naval strength.
- V. Resources coveted by Germany.
  - A. Territory.
  - B. Harbors and waterways.
  - C. Minerals fields.
  - D. Railroads.
    1. Berlin to Bagdad.
      - a. Mittel-Europa plan.
        - (1) Aim (Side Lights page 83).
  - E. Shipping power.
    1. Methods used (Side Lights page 86).
    2. Degree of success.
  - F. Industrial prosperity.
    1. Preparation.
    2. Success.
- VI. Countries injured by Mittel-Europa plan.
  - A. Degree.
  - B. Manner.
- VII. Pan German plan.
  - A. Effect upon German people.
  - B. Methods of execution.
  - C. Ultimate result.

HOME ECONOMICS—COURSE XII

Both in theory and in practice, this course will differ materially from the domestic science course ordinarily found in high school curricula.

Students taking this course will delight in seeking the active co-operation of the home and of certain social and economic forces within the environment of the home.

In addition to cooking and sewing, practical lessons will be given in bookkeeping, marketing, landscape gardening, and art as pertaining to interior decoration.

(Model Lesson)—

Home Economics, Unit I

Read the lesson assignment in full before attempting to answer questions or make outlines.

Do not confine your answers to the text books. Make use of knowledge gained from all available sources, not forgetting experiences. The more of your own personality you can put into your manuscript, the better.

Always designate the numbers of the study units. This will help the Extension Department in keeping your records.

## **TEXT—Foods and Household Management—**

**ASSIGNMENT**—Chapter XX and the Preface (as the successful housekeeper must be a business woman, one of her first duties is to learn to keep accounts. Hence it is thought best to take up Chapter XX before Chapter I).

Labor-saving devices for records.

Desks

Files

    Card

    Letter

Loose-leaf books

Keeping of accounts

    Aim

    Methods

        Envelope system

        Ruled blank book

Methods of payment

Bank account and check book.

After you have discussed the above topics, answer the following questions:

1. Suppose a housewife or a teacher cannot afford a desk such as described, can you suggest a home-made substitute? If so, describe it.
2. Rule a specimen page and designate column headings suitable for keeping the "Home Economics" accounts of your school or your home.
3. When you want to draw money from the bank, is there a safer way to write the check than to make it out to "Cash?"

**Preface**—What is the aim of the authors as set forth in the Preface? Do you agree with the authors?

## **PLANE GEOMETRY—COURSE XIII**

Geometry is a difficult subject to take by extension. The reason for this fact is that the individual is apt to think that he understands a proposition thoroughly when he has not in reality a complete mastery of it. Any vagueness and indefiniteness which attaches to the first half dozen theorems will constitute an almost insurmountable barrier later on in the course.

This course is therefore open only to mature students who have had at least two years of high school work or who have previously been enrolled in a class in geometry which for some reason was not completed.

Beginning students and those with less than two full years of high school credit must take the first five theorems as residence work and then continue the course by correspondence. This plan of giving the student a good start by making the first few lessons residence work can be arranged very nicely during the summer quarter.

The course as outlined will consist of two parts. First, a thorough mastery of the definitions, axioms, postulates, propositions and corollaries as given by some standard author, and second, the application of these to original exercises, with emphasis placed upon one's ability to solve these exercises.

(Model Lesson)—

Geometry, Unit II

- I. Study carefully Propositions I, II, III.
- II. Notice the different parts to each Proposition.
  - a. Given—Facts to work with taken from the proposition.
  - b. To prove—Which is always the conclusion of the proposition.
  - c. Proof—This part always consists of a series of statements, each supported by the authority of a definition, an axiom, a postulate, or some proposition or corollary previously proved.
- III. Do not fail to understand thoroughly paragraphs 62-67 inclusive.
- IV. After a careful study of the propositions named above turn to page 28, Exercise 5 and work all the problems. These problems are worked by applying Propositions I and II.
- V. Work all the problems on page 31.

(Model Solution of Problem 3, Page 28)

3.

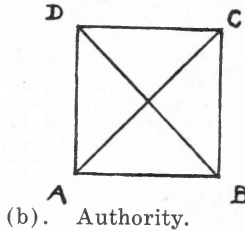
In the square ABCD  
Prove that  $AC=BD$

Given square ABCD  
To prove  $AC=BD$

Proof

(a). Statements

- I. In Triangle ABC and BAD
- II.  $AB=AB$
- III.  $AD=BC$
- IV.  $CBA=BAD$
- V. ABC is congruent to BAD
- VI.  $AC=BD$



(b). Authority.

- II. Identical.
- III. Paragraph 65—A square is a figure having four equal sides and four right angles.
- IV. Paragraph 56. All right angles are equal.
- V. Paragraph 68, Two Triangles congruent if two sides and included angle or one are equal respectively to two sides and included angle of the other.
- VI. Paragraph 67. Corresponding parts of congruent figures are equal.

(Notice the last statement is the same as the part of problem "To prove").

TYPEWRITING—COURSE XIV

Beginning work in touch typewriting covering position at machine, memorizing of keyboard, proper touch and correct fingering, the construction and care of machine, study of approved forms and circular letters, addressing envelopes, tabulating, centering, and arrangement.

BOOKKEEPING—COURSE XV

This course is intended to familiarize the student with the fundamental principles of good accounting. The theory is approached by the balance sheet method and there is considerable written work from the beginning. The first part of the course is devoted to the study of theory and application of this theory by written solutions to problems given in the text. Beginning with the second quarter's work or the sixteenth study lesson a complete set of books illustrating the uses of the cash book, purchases book, sales book, journal and ledger, will be written up.













# Colorado State Teachers College BULLETIN

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Section Seven of the Educational  
Survey of Colorado State  
Teachers College

THE COURSE OF STUDY



GREELEY, COLORADO

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State Teachers College  
Bulletin

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Section Seven of the  
**EDUCATIONAL SURVEY**  
of Colorado State Teachers College

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**THE COURSE OF STUDY**

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**AUGUST 1921**

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PUBLISHED BY  
**THE BOARD OF TRUSTEES**  
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# Foreword

The publication of this section of the Survey Report comes late. It has been postponed from date to date for reasons that will be duly appreciated only by those who have had responsibility for the framing and administering of curricula for professional schools. The topic covered involves the whole philosophy of education. All the infinitely perplexing questions of values arise as soon as one begins to criticise or construct curricula. And, as we all know, people tend to divide upon these questions, upon the basis of the prejudices ingrained by special training and given consistency by experience. This is the usual and most persistent difficulty of the beginning of faculty participation in curriculum making. The only permanent way *out* is *through*—if faculty participation is to be adhered to as a policy; and in a democracy it would appear as if there should be no doubt of this. It is undoubtedly easier, and perhaps often more immediately efficient, to follow the autocratic method of arbitrary decision. In the long run it is less efficient as well as unjust.

So the report has been delayed for the sake of fuller discussion and more durable unity—the unity of common purpose. It will no doubt seem to some who read the report that it should have awaited further deliberation; for the results are clearly not entirely satisfactory. But there is another point of view. The report crystallizes no opinion. No one is satisfied with the curricula so far arrived at. Perhaps the next phase of the discussion can be best initiated by bringing together the results of previous deliberations. The net gains so far are considerable, as it seems to me. The nature of the task of making a satisfactory professional program of studies duly differentiated into curricula, each bearing with conscious purpose upon the needs of the typical teaching positions to which graduates of the College go, is certainly now very much clearer to us all than it was when the committee began its work. And there can hardly be any reasonable doubt that generally speaking the constant effort to be intelligent in attitude toward the courses and curricula of the school has had some liberalizing effect upon everybody involved—including the President, who has constantly resisted the temptation to make *ex cathedra* decisions when things lagged.

The importance of the matters involved in this report calls for a somewhat more extended comment. And it is opportune to emphasize at the outset some of the more tangible of the durable results of the committee's work. The guiding principles worked out in the committee and the tentative effort to apply them to the defining of the "core requirements" are at least highly suggestive. They antedate any similar effort, so far as I have been able to discover, and at least look in the right direction. Items 7, 8, 9 and 10, page 59, reflect a point of view which up to that time, so far as I can discover, had not been proposed elsewhere and which now (since the appearance of the epoch-making *Bulletin Number Fourteen* of the Carnegie Foundation, 1920,) seems likely to come into general favor, under the name of *Professionalized Subject-Matter Courses*. If the reader, however critical, keeps results of this sort in mind and remembers that they are products of faculty participation in the effort to develop a purposeful set of curricula for teachers, there will be no danger of his discounting the method adopted or of overlooking the less tangible results.

A few further comments upon the several parts of the report seem

desirable. First, a historical study of the changes of a school's curricula can probably not often give the information that would be most enlightening to those struggling with the problems of making purposeful curricula. For example, the actual guiding principles that have operated in the past can usually only be inferred somewhat uncertainly from one's knowledge of contemporary educational opinion. They are very seldom stated explicitly. Where an approach to a statement of grounds is made by this or that independent school, it is usually in terms so philosophical and remote from the typical situations of the public school teacher as to have only a very general bearing upon the concrete problems of preparation; similarly the cause of the variations of course requirements and of curricula are usually quite undiscoverable. The arguments underlying such changes would be enlightening to other schools if they could be had. It would be helpful to know the amount of faculty participation that went on as preliminary to shifting the curricular scenery; and of the amount of interplay between faculty and public school leaders and state department in the shaping of the state course of study; and so on. Occasionally it is possible to infer that this or that change was due to some contemporary development of practice. The introduction into Colorado State Teachers College of the *elective principle*, for instance, might plausibly be attributed to the rise of that practice in the universities. It could hardly be attributed to any development in the field of professional preparation of teachers.

In brief, in the absence of a faculty organization for participation in such matters as these there is not likely to be any record by studying which a history of a school's curriculum could be freed from mere conjecture in the most important matters. Having this in mind, Mr. Wright was wise in focusing largely upon the account of the efforts of the committee that was appointed in 1917, and the record he has provided will be available for future students of the method of growth of professional curricula.

The several other parts of the report will likewise serve admirably to document, for future investigators, other phases of the problem of democratic curriculum making. Your attention is invited especially to the faculty's replies to the questionnaire upon the curricula.

Our most serious doubts are probably not those gathering about the proper length of curricula or about what would be an adequate preparation for the teachers of American children. Expediency unfortunately settles in advance very much of those problems—and on a level *lower than our knowledge of the needs of teachers and the potentialities of children warrants*, if we could help it. Those to whom it seems clear that the elementary subjects though "common" are far from being "common-place" (except when taught by insufficiently educated teachers) will probably be less disturbed by the large place still given to those studies in the curricula than by the question of how to get them treated both liberally and with due artistry. Not mere reviews, "re-hashes," as Mr. Hadden calls them, but "new views" on a college level as Mr. Bagley specifies.

This brings us to the "core" studies of the curricula. Mr. Hadden has compactly assembled the varied reactions of the faculty to the "constants" which the committee agreed upon after nearly a year of discussion. His summary constitutes a very valuable source book for administrators of teachers colleges. It reveals with unique vividness the range and variety of faculty opinion, and should be of distinct service to all subsequent investigators of the **conditions** of effective teacher preparation. This section will repay the most careful study. With regard to the diversity of opinion, it seems that we may safely conclude that in general outline the existing practice in schools for teachers is sound,—namely, teachers have certain common responsibilities which

all assume by virtue of being teachers and that *regardless of their specialties they must have the common preparation so implied*. The common elements of the problem of instruction seem to require of all a group of studies dealing with the nature of children and of the learning process. The common problems of the nation likewise require a certain common knowledge on the part of teachers. And the nature of the institution in which teachers work is a powerful factor in the outcome of their work and indicates another field of necessary common knowledge. In short, laudable as the specialist's belief in the efficacy and sufficiency of his specialty is, it becomes obstructive when not balanced by being seen in relation to the social purposes of the curriculum as a whole. Until convincing proof that such "constants" are not in the interest of the best preparation is available, we should conclude that in this case the real problem is only that of getting the right content for Educational Psychology, Educational Biology, Educational Sociology, the Principles of Education, Educational values, the History of Education, and the like; of securing the most effective order of topics and courses, and of getting due coordination of these with other educational work.

The results of the attempt to discover typical deficiencies in the preparation of graduates from the College will also repay close study. It would probably have been useful to subject these returns to statistical analysis, to see if possible what the preponderant factors are. But the general impressions given are valuable and may be close enough to the truth. They confirm a *priori* judgment.

The analysis of the Course of Study for 1917-18 presented brings to the foreground one other very significant point. The author's reaction to "group electives" seems to have the very soundest judgment on its side. Courses can not rationally be regarded as equivalent to each other. Where such an assumption is made his conclusion that "we can assume that no course is really needed" is quite logical. Either that, or else the practice should be regarded as a confession that the needs of the teacher are undiscoverable. The elective principle has very small place in any professional school—the shorter the period of study the less place. Its application is practically exhausted with the election of a particular field of work. Within the chosen field practically everything should be prescribed by these who know what "the characteristic pressures" of the work actually are.

The discovery of needs is a complex undertaking. Needs have a double aspect—referring to the usual pressures, which are more or less well known, or can be; and to deficits. A good curriculum can not be made out with reference exclusively to either one. Probably we shall ultimately agree that in most professional schools the needs of the first sort are the first consideration. At least they are ordinarily the most pressing, and from the satisfactory meeting of such needs we may expect the most fruitful approach to those of the second sort.

The comments Mr. Hadden makes on the necessity of interrelation and coordination of "special subjects" and their functional connections with other lines of school work seem quite to the point. It is in effect a reiteration of the idea of organization which has been steadily developing throughout the course of the survey.

This final section of the Survey Report closes an arduous piece of work, which it can hardly be questioned has been of the highest practical value. The original idea of "taking stock" in order to find the clues to the most fruitful development of the College seems to have grown into a permeating influence of most dynamic quality. The output of the College in the way of educational publications has leaped into prominence, and with this increased personal activity of the producing personnel goes the certain assurance of an increased efficiency of class room work, which is the moving goal of every effort to improve educational service.

J. G. CRABBE,  
President.

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# INTRODUCTION

by *G. R. Miller*

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This Survey shows the evolution of the curriculum of Colorado State Teachers College of Colorado, and offers some free criticism of the professional and social value of the curriculum as now organized and operating.

One constantly apparent fact is developed by this survey; viz., the steady progress of the curriculum from the time of its inception until now. Its beginning was on a strictly professional basis. This teacher training institution started as a technical vocational school, and has not at any time departed from its original declared and chartered purpose. The course of study has undergone many changes, always liberal in purpose, but adhering constantly to the viewpoint of the training of teachers for public service. This fact is emphasized again and again in the publications of the institution during the past twenty-five years. A noticeable feature of the curriculum in this school is the logical development of the three sciences on which the institution now bases its Science of Education. Biology was the basal viewpoint in the early curriculum, and was the scientific foundation on which the Department of Psychology was evolved in this institution; and on the basis of these two sciences the Department of Sociology was developed. This was a sound sequence because it is historical and also the logical order of the general evolution of these sciences; and they remain at the present time as the professional foundation in our preparation of students for the study of education. This sequence of development is unique in teacher training institutions, and probably is not paralleled in any other teachers college in this country, either in time, order, degree of development, uniformity of required study, or planned correlation of these sciences as prerequisites for the study of education. The entire plan is a distinctly strong feature in our curriculum, and our committee emphasizes it in this report because of the superior opportunity which it has offered in the past, and still offers as a scientific basis for the further evolution of our curriculum.

This College has at no time copied its course of study from the procedure of other schools. This Survey shows clearly that our curriculum has evolved strictly out of our own felt and appreciated needs, not only because we were a pioneering western school, isolated in our earlier days from the greater thought centers, but probably more truly, easily and soundly because we have based all our study of education, both theoretical and practical, on a sound scientific basis.

The Survey traces the evolution of the Senior College curriculum as a direct development from the old Normal School program of study; and here again the new procedure was based not on the individual notions of members of committees, but on the permanently fixed scientific basis; and the Senior College started its work by advanced study in the three basal professional subjects, Biology Psychology and Sociology, as a prescribed foundation for a more liberal study of the Science and Art of Education.

Since 1910 the marked growth of the institution is traceable almost entirely to the expansion of the curriculum of the Senior College and the Graduate College. The growth has been rapid and remarkable, but at no time has our advance been loosely accomplished. All branches of the curriculum have expanded. Specialization has become a marked

development of every department of the College. Industrial and fine arts and applied education in its many aspects have made large progress in our College. The curriculum is liberal and attractive, but it has wisely adhered to the idea that "relationships are the richest part of instruction."

Our committee submits this Survey to the President of the College, not with the feeling that its work is completed in all particulars, but with the reassured belief that our curriculum is scientifically sound, and that its evolution has been from the beginning in thorough accord with the best modern educational thought.

Our biological viewpoint has always been the guarantee of a wise consideration and proper estimate of individual abilities and differences, a sure guide in the study of health, hygiene and physical education. Our psychological viewpoint has furnished the estimate for comparative values in method, and wise procedure in teaching practice. Our sociological viewpoint has insured for us a balanced judgment regarding the social aspects of education and induced a growing emphasis on community needs as the ultimate basis for the evolution of an adequate curriculum, functioning for public service.

# THE HISTORY OF CURRICULA MAKING

by *Frank Lee Wright*

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In the past practically the only plan of curriculum making in elementary schools, high schools, normal schools, colleges and universities has been that of borrowing or stealing courses, curricula, or even a whole program of studies, from other institutions. I believe, however, as one studies the evolution of the courses and curricula of Colorado State Teachers College he will be impressed with the fact that the institution has had a pretty definitely planned program and that she has been marching these thirty years pretty straight toward a definite goal.

In fact in the very first catalog there was an attempt made to analyze the needs of teachers and to determine the course of study accordingly. One finds such statements as the following:

"There are three immediate agencies involved in education: the teacher, the child and nature. A classification of the facts, the principles and the laws which are embraced in their 'Inner Connection,' constitutes the science of pedagogics. That a teacher may understand this inner law, he must have a knowledge of nature and mind, and their relations. Out of this arises an understanding of the training necessary for his preparation. It suggests a course of study."

"The central agency is the child. It is a living mental, spiritual entity. It has a body, a mind, a soul. The preparation essential, then, is training of the hand, the head and the heart."

In accordance with the above analysis, the following Course of Study is outlined: Physiology, Hygiene and Gymnastics; Language and Manual Training; Science; History and Literature; Psychology; Ethics; Mathematics; Art, as found in drawing and painting, modeling, constructing and music; Civics.

Each of the above subjects has a paragraph justifying it. For instance the justification for science is couched in the following paragraph:

"He (the teacher) should know the relation of a child's development to nature and its surroundings. He should recognize that the mind is quickened through the senses, that there must be action and reaction of the forces without and within the child. He should be able to lead the child to interpret its surroundings. A child must see the sparkling minerals and flowering plants; it must hear and see the buzzing insects and the singing birds; it must smell the fragrance of the rose that it may know, admire, and act. This embraces a knowledge of science."

Although the plan of attack may not have been entirely scientific, the fact that there was an effort to justify every subject in the program of studies gives proof that there was at least an attempt at scientific procedure. Since the appointment of the present Committee on Course of Study, the methods of procedure, which will be explained later, has been as careful and scientific as is possible, or as much so, at any rate, as the knowledge and experience of the members of the committee permitted.

Since the program of studies in the past has been determined largely by the entrance requirements, a brief discussion of requirements for entrance will be given. As is true of practically every teacher training institution in the country, this institution began with the regulation that eighth grade graduates of good moral character shall be admitted. This additional statement appears in the second catalog 1891-92:

1. "Graduates of high schools—will be admitted without examination to the Junior class.
2. "All persons wishing to enter higher than the Junior class will be required to pass an examination.
3. "A two-year course in German or French will be accepted as equivalent to two years in Latin, fitness determined by examinations."

One would take this to mean that those who were admitted to the junior class were required to have two years of language.

In this year, too, provision was made for a year of preparatory work for those who had not completed eighth grade work.

In the catalog for the year 1897-98 there is found (p. 181):

"At a meeting of the board of trustees held June 2, 1897, a resolution was passed making the course three years, namely Sophomore, Junior and Senior years."

"High School graduates or those having at least an equivalent education may enter the Junior class without examination.

"Persons who are practical teachers and who hold first or second grade certificates will be admitted to the Sophomore class without examination."

At this same meeting of the board "a resolution was passed admitting only high school graduates or those who have an equivalent preparation and practical teachers who hold first or second grade certificates. This policy makes the institution a professional school in the strictest sense."

It will be noted that this institution did not start as a high school or an academy, but it did take the place of a high school in a way for a few years. Very soon the purpose of training for teaching was evident, as it was expected that those who enter should either be high school graduates or mature teachers.

Although the matter of terms, semesters and quarters is only indirectly connected with the curriculum, it is of interest in the administration of the program of studies. The term or quarter basis furnishes opportunity of offering a greater variety of subjects in the least possible time and this seems always to have been an attractive feature of normal schools. Furthermore, such a scheme affords opportunity for the teacher in the field to enter for one or more terms or quarters each year, after teaching her six months term of school. The desire to ape or compete with colleges, however, has caused many normal schools to introduce the semester system. This really was rather closely connected with a change in curriculum as well.

Colorado State Teachers College has passed through these various stages, it seems. The institution began with three terms—Fall, Winter and Spring—of 15 Weeks, 13 weeks and 12 weeks respectively. Beginning with the year 1896-97, the terms were 16, 11 and 11 weeks until the school went to the semester basis, in 1900-1901. The reason for the Fall term being longer than the other terms was so that the Christmas vacation could come at the end of this first term. The semester basis was continued until 1904-05 only, when the institution went back to the three term plan.

There has been some sort of special term corresponding to the Summer term, first announced as a "special review school," advertised for every year since the institution began. The first plan was to have this special school of reviews the last three or four weeks of the Spring term. In 1903-04 a summer term of six weeks was announced; in 1904-05 a term of eight weeks; and in 1905-06 there was a return to the six weeks plan until the year 1917-18, when the four quarter system was inaugurated.

It is impossible in the time at my disposal to give a complete history of the development of the program of studies, but I shall give a few representative programs and some of the interesting factors in this development in Colorado State Teachers College.

The following four years work presupposing the completion of the eighth grade, led to the Pd. B. degree, and appears in the first catalog.

| First Year           |                        |                        |
|----------------------|------------------------|------------------------|
| Fall Term (15 Weeks) | Winter Term (13 Weeks) | Spring Term (12 Weeks) |
| Arithmetic           | Arithmetic             | Algebra                |
| Grammar              | Reading                | Rhetoric               |
| Geography            | History                | Physiology             |
| Music                | Drawing                | Calisthenics           |
| Second Year          |                        |                        |
| Algebra              | Algebra                | Geometry               |
| School Management    | School Management      | English & History      |
| Civil Government     | Zoology                | Botany                 |
| Music                | Drawing                | Calisthenics           |
| Third Year           |                        |                        |
| Geometry             | Geometry               | Physics                |
| Psychology           | Psychology             | Methods                |
| Latin                | Latin                  | Latin                  |
| English & History    | English & History      | English & History      |
| Music                | Drawing                | Calisthenics           |
| Fourth Year          |                        |                        |
| Physics              | Chemistry              | Chemistry              |
| History of Education | History of Education   | Science of Education   |
| Latin                | Latin                  | Latin                  |
| English & History    | Practice (teaching)    | Practice & Criticism   |
| Music                | Drawing                | Calisthenics           |

Essays, Orations, and Declamations throughout.

In the next catalogue for the year 1891-92 (pages 19-20) an effort at formulating principles for Course of Study making was made. Every subject offered in the course then is theoretically justified. According to the analysis made, the following subjects were justified:

Language—English Grammar, Speech, English Composition, Rhetoric and Latin.

Science—Physiology, Chemistry, Zoology, Botany, Geology, Physical Geography and Physics.

Mathematics—Arithmetic, Algebra, Geometry, Mensuration.

History—Literature and Civics. U. S. History, General History, History of Literature, Civics, Study of Authors.

Art—Writing, Drawing, Kindergarten, Sloyd, Manual Training, Music, Painting.

Professional:

1. Theoretical work—Psychology, Science, Art, History and Philosophy of Education, School Management, Methods, Ethics.

2. Practical work—Psychology, Art of Education, School Management, Methods, Observation and Teaching.

A year of preparatory work for those who had not completed the eighth grade included a full year of arithmetic and composition each, two terms each of geography and spelling and a term each of history and reading.

The new subjects introduced into the four years of normal work are one term of inventional geometry, one term of geology, one term of observation in the model school the term preceding practice teaching, two terms of manual training, two terms of elocution and one term of philosophy of education. (see P. 23)

There was added a post graduate year for the year 1892-93, consisting of the following subjects:

| Fall Term (14 weeks)    | Winter Term (12 Weeks) | Spring Term (12 Weeks) |
|-------------------------|------------------------|------------------------|
| English 2 (twice a wk.) | English 2              |                        |
| Ethics 4                | Logic 4                | English 2              |
| Trigonometry 4          | Analytical             | History of Philosophy  |
| Latin 3                 | Geometry 4             | Analytical Geometry 4  |
| Geology                 | Latin 3                | Latin 3                |
|                         | Astronomy              | Chemistry              |

In the first four years the work was similar to that previously offered. "Elocution and deltsarte" is given a prominent place in the

Freshman and Sophomore years. In some courses, beginning with the Junior year the subjects were given less than five times a week.

During the fifth year of the school's existence, a faculty of seventeen plus a landscape gardener and an engineer handled the following offerings (Pp. 40-45 Catalog 1893-94 with announcements for 1894-95):

PREPARATORY YEAR

|                      |                        |                        |
|----------------------|------------------------|------------------------|
| Fall Term (15 Weeks) | Winter Term (12 Weeks) | Spring Term (11 Weeks) |
| Arithmetic           | Arithmetic             | Arithmetic             |
| Language             | Language               | Language               |
| Geography            | Geography              | History                |
| Reading & Spelling   | Reading & Spelling     | Reading & Spelling     |
| Inventive Geometry   | General Arithmetic     |                        |

(Note that general Arithmetic follows the course in inventive geometry. This comes near being modern.)

Freshman

|                      |                      |                      |
|----------------------|----------------------|----------------------|
| Arithmetic           | Arithmetic           | Grammar & Language   |
| Grammar & Language   | Grammar & Language   | Geography            |
| Physiology           | History—Geography    | Elocution & Delsarte |
| History              | Elocution & Delsarte | Drawing & Sloyd      |
| Penmanship           | Penmanship           | Penmanship           |
| Elocution & Delsarte | Society work         | Society work         |
| Society work         |                      |                      |

Sophomore

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| Algebra (4)              | Algebra (4)              | Algebra (4)              |
| School Management (4)    | Lit. & English           | Fiction & English        |
| Zoology & Botany         | Zoology & Botany         | Botany & Zoology         |
| History & English        | Political Economy (4)    | Elocution & Delsarte (3) |
| Latin (4)                | Latin (4)                | Latin (4)                |
| Elocution & Delsarte (3) | Elocution & Delsarte (3) | Society work             |
| Society work             | Society work             |                          |

Junior

|                   |                 |                       |
|-------------------|-----------------|-----------------------|
| Geometry (4)      | Geometry (4)    | Geometry (4)          |
| Psychology (4)    | Psychology (4)  | Methods (4)           |
| Latin (4)         | Latin (4)       | Latin (4)             |
| History & English | Lit. & Eng. (3) | Rhetoric (4)          |
| Elocution & Del.  | Delsarte (3)    | Pub. Sch. Science (4) |
| Drawing & Sloyd   | Drawing & Sloyd | Drawing & Sloyd       |
| Society work      | Society work    | Society work          |

Senior

|                      |                       |                       |
|----------------------|-----------------------|-----------------------|
| Physics (4)          | Physics—Chemistry (4) | Chemistry (4)         |
| History of Ed (4)    | History of Ed. (4)    | Philosophy of Ed. (4) |
| Model Practice       | Model Practice        | Model Practice        |
| Music (3) & Eng. (2) | Music (3) & Eng. (2)  | Music (3) & Eng. (2)  |
| Geography (4)        | History (4)           | Arithmetic (4)        |
| Society work         | Society work          | Society work          |

POST GRADUATE COURSE

|                      |                       |                    |
|----------------------|-----------------------|--------------------|
| Pedagogics-Logic (4) | Pedagogics-Ethics (4) | Pedagogics-History |
| Geology (4)          | Astronomy (4)         | Philosophy (4)     |
| English (2)          | English (2)           | Chemistry (4)      |
| Trigonometry (4)     | Analytics (4)         | English (2)        |
| Latin (3)            | Latin (3)             | Analytics (4)      |
| Applied Sloyd        | Applied Sloyd         | Latin (3)          |
|                      |                       | Applied Sloyd      |

There appears in this catalog quite carefully detailed outlines of the courses such as psychology, science of teaching, etc. Furthermore, one can hardly help noting the change for the better in the above program of studies over that of the first year. The Kindergarten Course is announced for the first time this year.

There is introduced the next year (1895-96), a course in Primary Psychology in order to meet the needs of the kindergartners.

There are few changes for the year 1896-97, but one finds two rather important changes in the post graduate year—the substitution of School Systems for Logic and Child Study for Ethics. A class for teaching the organization of library work was organized also.

For the year 1897-98 the Educational Psychology was introduced. This interesting statement appears in connection with outline of the courses in Psychology: "Psychology is the Blackstone of pedagogics."

For the year 1898-99 only three years work was offered, the sophomore, junior and senior years.

In the year 1900-01, the eleventh year of the school's existence, the institution goes to the semester basis, each semester being 19 weeks in length. This year a committee on course of study, consisting of President Z. X. Snyder, J. H. Hays, A. E. Beardsley, J. W. Hall, D. D., Hugh and Louise Hanum, appears for the first time in the history of the institution. We find for the first time this year opportunity for election by the student. In the Tenth Annual Catalog (Pp. 24-27) there appears the following:

NORMAL COURSE OF STUDY  
Introduction and Explanations.

This is an age of specialists. In the professions, in the industries, there is a determined tendency to a differentiation of labor. The underlying stimulus is a more thorough preparation for a more narrow line of work. This stimulus has its potency in the fact that better results follow from such specific training—the greatest product for the least expenditure of energy. With this end in view, the course of study has been revised so that the student has an opportunity to elect some of the work, thus enabling him to specially prepare himself in some particular subject along the line of his tastes.

1. A school year is divided into two **semesters** of eighteen (18) weeks each.
2. A Term Hour, or Point, is one recitation a week for a **semester**, or eighteen (18) recitations.
3. A norm for school work is twenty-five recitations a week. A student who wishes to take more than this must have special permission. Some may be required to take less.
4. Fifty Term Hours, or 900 recitations, are a year's work.
5. A laboratory period must be measured in terms of a recitation period in making Term Hours.
6. The course is divided into Requisites and Electives.

OUTLINE OF WORK

Sophomore

Requisites—44 Term Hours

|                              |                |                 |       |
|------------------------------|----------------|-----------------|-------|
| Algebra .....                | 36 weeks.....5 | periods.....*10 | T. H. |
| Geometry .....               | 36 weeks.....5 | periods.....10  | T. H. |
| English .....                | 36 weeks.....4 | periods.....8   | T. H. |
| Reading and gymnastics ..... | 36 weeks.....3 | periods.....6   | T. H. |
| Physics and Biology .....    | 36 weeks.....5 | periods.....10  | T. H. |

Junior

Requisites—40 Term Hours

|                                       |                 |               |       |
|---------------------------------------|-----------------|---------------|-------|
| Training School—                      |                 |               |       |
| 1. Observation .....                  | 36 weeks.....1  | period.....2  | T. H. |
| 2. Seminar .....                      | 36 weeks.....1  | period.....2  | T. H. |
| 3. Arithmetic .....                   | 36 weeks.....1½ | periods.....3 | T. H. |
| 4. Nature Study .....                 | 36 weeks.....1½ | periods.....3 | T. H. |
| 5. Reading and Physical Culture ..... | 36 weeks.....2  | periods.....4 | T. H. |
| 6. Public School Art .....            | 36 weeks.....2  | periods.....4 | T. H. |
| *T. H. denotes Term Hours.            |                 |               |       |
| Psychology .....                      | 36 weeks.....3  | periods.....6 | T. H. |
| English and Literature .....          | 36 weeks.....4  | periods.....8 | T. H. |
| Sloyd, Domestic Economy.....          | 36 weeks.....2  | periods.....4 | T. H. |
| Biology .....                         | 36 weeks.....2  | periods.....4 | T. H. |

Senior

Requisites—40 Term Hours

|   |                 |                |       |
|---|-----------------|----------------|-------|
| Training School—                          |                 |                |       |
| 1. Practice in Teaching .....             | 36 weeks.....5  | periods.....10 | T. H. |
| 2. Seminar .....                          | 36 weeks.....1  | period.....2   | T. H. |
| 3. Geography .....                        | 36 weeks.....1½ | periods.....3  | T. H. |
| 4. History and Literature .....           | 36 weeks.....2  | periods.....4  | T. H. |
| 5. Music .....                            | 36 weeks.....1  | period.....2   | T. H. |
| Philosophy and History of Education ..... |                 |                |       |
| .....                                     | 36 weeks.....5  | periods.....10 | T. H. |
| English and Literature .....              | 36 weeks.....3  | periods.....6  | T. H. |
| Reading and Physical Culture .....        | 36 weeks.....1½ | periods.....3  | T. H. |

## ELECTIVES

Junior—10 Term Hours.      Senior—10 Term Hours.

Electives may be selected from the following subjects, or groups. The first numbers following the groups designate the number of recitations per week in each subject, the second designate the T. H.

|  |   |    |
|--|---|----|
| Group 1—Latin, German, French, Spanish, English and Literature.. | 5 | 10 |
| Group 2—Anthropology, Sociology, History, Government .....       | 5 | 10 |
| Group 3—Physiology, Psychology, Pedagogy .....                   | 5 | 10 |
| Group 4—Physics, Chemistry, Physiography, Biology .....          | 5 | 10 |
| Group 5—Trigonometry, Analytical Geometry .....                  | 5 | 10 |
| Group 6—Art .....  | 5 | 10 |
| Group 7—Sloyd, Cooking and Sewing, Library Handicraft .....      | 5 | 10 |
| Group 8—Reading and Physical Culture .....                       | 5 | 10 |
| Group 9—Kindergarten .....                                       | 5 | 10 |

In the eleventh annual catalog, for the year 1901-1902, there appear announcements for the normal department and the normal college department. The work intended for the normal department is practically the same as for the year before. The normal college course is four years above the regular four year high school course, and leads to a "diploma, equivalent to the Bachelor of Arts degree." The purpose of the course is to prepare for high school teaching. The student elects his major group from ten suggested groups and gives five recitations a week for the four years to this major. "He is under the immediate direction of the professor of the department to which the group belongs." His minor subject is determined by his major professor and three recitations a week for four years are given to this minor. The professional group is required of all who intend to teach, this group being five recitations a week for four years. English is required throughout the course, four recitations a week during the first and second years and three a week during the third and fourth.

In the Twelfth Annual Catalog, for the year 1902-03, one finds an announcement concerning a Normal Drawing Course for "those desiring to fill positions as supervisors of drawing."

In the fifteenth year of the history of the institution (1904-05) as announced in the Fourteenth Annual Catalog, there was a return to the three terms. There appears announcement also of (1) The Normal Course leading to the degree Pd. B., intended to qualify teachers for the elementary schools, and (2) The Normal College Course of three years, leading to the degree Pd. M., intended to qualify teachers for work in high schools.

It seems that there was not a demand for the A. B. work outlined in the catalogue for 1901-02. There appears again a year of preparatory work for those who are not high school graduates but mature enough to prepare for the regular course in one year. One recitation per week for a term constitutes a term hour. Sixty term hours for the junior year, and sixty-three for the senior year in addition to physical culture, which is required of all students, constitutes a regular year's work in the normal course. Forty-eight term hours aside from physical culture constitutes a year's work in the college course. Here are the offerings.

### REGULAR NORMAL COURSE

| Preparatory Year.      |      | Junior Year.           |     | Senior Year.           |     |
|------------------------|------|------------------------|-----|------------------------|-----|
| Per Week<br>Terms Rec. |      | Per Week<br>Terms Rec. |     | Per Week<br>Terms Rec. |     |
| Algebra                | 3 5  | Psychology             | 2 5 | Philosophy of          |     |
| English                | 2 5  | Pedagogy               | 1 5 | Education              | 3 5 |
| History                | 1 5  | English                | 2 5 | Seminar                | 3 1 |
| Physics                | 1½ 5 | Reading                | 1 5 | Teaching               | 3 5 |
| Biology                | 1½ 5 | Biology                | 1 5 | English                | 2 5 |
| Geometry               | 3 5  | Music                  | 1 5 | Reading                | 1 5 |
| Physical Culture       | 3 2  | Mathematics            | 1 5 | History                | 1 5 |
|                        |      | Art                    | 2 5 | Music                  | 1 5 |
|                        |      | Sloyd or Domestic      |     | Physical Culture       | 3 2 |
|                        |      | Economy                | 1 5 |                        |     |
|                        |      | Phys. Cult.            | 3 2 |                        |     |



NORMAL COLLEGE COURSE

| First Year.    |         | Second Year.   |         | Third Year.   |         |
|----------------|---------|----------------|---------|---------------|---------|
|                | Hrs.    |                | Hrs.    |               | Hrs.    |
| English        | 2 5 (4) | Psychology     | 2 5 (4) | Philosophy of |         |
| Electives      | 10 4    | Pedagogy       | 1 5 (4) | Education     | 3 5 (4) |
| Physical Cult. | 3 2     | English        | 2 5 (4) | Seminar       | 3 1     |
|                |         | Electives      | 7 4     | Teaching      | 3 5 (4) |
|                |         | Physical Cult. | 3 4     | Electives     | 6 4     |

In the Fifteenth Annual Catalog, for the year 1905-06, there appear outlines of curricula for the departments of Manual Training, Domestic Science, Modern Language, Music, Art, Physical Education and Kindergarten. The following subjects are required in all these curricula:

1. English—Courses 3, 4, 5, 6.
2. Psychology—Courses 1, 2, 3.
3. Pedagogy—Course 1.
4. Education—Courses 1, 2, 3.
5. Physical Education—Six courses in all.
6. Teaching—Three semesters. For kindergarten majors an extra semester of teaching in the primary grades is required.

Besides this requirement for all department majors, certain other requirements are made. As an illustration here are the additional requirements for those taking the diploma in the Department of Domestic Science:

- Cooking: Courses 1, 2, 3, 4, 5, 6.
- Sewing: Courses 1, 2, 3, 4.
- Household Science: Courses 1, 2, 3.
- Chemistry: Courses 1, 2, 3, 7.
- Biology: Course 1.

In the Eighteenth Annual Catalog, for the year 1908-09, under Courses of Study, one finds:

- I. Regular Courses leading to licenses to teach and degrees in the Colorado State Normal School are of three kinds:
  1. The Normal Course leading "to the degree of Bachelor of Pedagogy" and a diploma which is a license to teach for life in the public schools of the State.
  2. The Normal Graduate Course leading "to the degree of Master of Pedagogy" and the life diploma.
  3. The Normal College Course leading to the degree of Bachelor of Arts in Education and the life diploma.
- II. Work required for the various courses.
  1. The Normal Course.
    - a. Eleven Courses of Professional work.
      - Three term courses in Psychology and Pedagogy. (A term course is one subject, 5 times a week for 12 weeks.)
      - Three term courses in Education.
      - Three term courses in Teaching.
      - One term course (Junior Year), Observation.
      - One term course (Sr. Year), Conference in Training School.
    - b. Nineteen term courses elective.
      - There is a large list of offerings here.
  2. The Normal Graduate Course.
    - a. 12 term courses in electives beside any additional work assigned in the Training School in addition to the requirements for completion of Normal Course as indicated above.
  3. Normal College Courses—24 term courses.
    - a. 24 term courses elective and any additional work assigned in the Training School, in addition to requirements for the Normal Course as stated above.

Special Normal Certificates are issued by the departments of Kindergarten, Physical Education, Manual Training, Domestic Science, Art, Music and Modern Languages. Six of the nineteen electives mentioned under "b" above are to be given by the department granting the diploma.

The Twenty-second Annual Catalog, for 1912-13, appeared as a catalog of Colorado State Teachers College. Work of the Junior College and the Senior College is outlined. The requirements for graduation from the Junior College:

|  |   |                                   |    |
|--|---|-----------------------------------|----|
| Education 1—Observation in Training School | 4 | Biology 2—Bionomics               | 5  |
| Education 11—Principles of Education       | 4 | Sociology 3—Educational Sociology | 3  |
| Psychology 1—General Psychology            | 5 | English 1—Grammar and Composition | 5  |
| Psychology 3.—Educational Psychology       | 4 | Teaching—3 terms                  | 15 |

It will be noted that of the 120, 45 term hours are required, leaving 75 to be selected at will, except in the case of special diplomas, where a major (30-40 hours) is expected.

For the A. B. the student is required to take a major (40 to 60 term hours) in some department or group of departments. At least half of this major work must be done in the last two years. Biotics in education for three terms is given by the President of the institution. The work is outlined for majors in each department for both two years and four years work. In a special bulletin published in January 1913 additional requirement of 6 hours in sociology for Senior College graduates besides the 9 hours in Education (Biotics in Education), which was not really Education, was made. There were 109 courses in all scheduled. According to this Twenty-Second Annual Catalog, the degrees Pd. B. and Pd. M. were to have been discontinued after August 1913, but they were not discontinued until June, 1918.

In the Twenty-third Annual Catalog, for 1913-14, appeared the first announcement of graduate work leading to the degree Master of Arts in Education, although graduate work was offered during this year and there were three candidates for the degree on June 4, 1914. One cannot study announcements of the graduate work in this institution without realizing that the work was to be of the very highest character and demand research and professional specialization. In this catalog, too, Education 1 becomes Training School 1. That is, courses in the Department of Education were transferred to a department known as Training School.

In the Twenty-Fourth Annual Catalog, 1914-15, appears the announcement of credit of 4 hours for three terms of Bible Study in the Greeley churches.

For the year 1915-16 "all special Department Diplomas have been discontinued and in their place a notation is inserted in the regular diploma indicating the department in which the student has done his major work." The number of new faculty members, a total of at least 19, added this year and the year before is very noticeable. The number of new courses added is very large also. While there were 153 courses offered for the year 1914-15, there was an offering of 297 courses for the Junior College students alone this year. This does not include the many courses for the Senior College and the Graduate College. The Junior College requirements do not change; the only change in the Senior College requirements, was that four terms of teaching was required instead of three terms previously.

The requirements for the year 1916-17 were somewhat changed. Instead of requiring definite courses in every case in the Junior College, an opportunity for choice was given in the case of Education and Psychology. Another course in education was added this year; evidently to take the place of Education 1, which had become Training School 1, three years before. Although there is a course added to the required list, the number of hours remains the same, 45 (normal credit), as the number of terms of teaching has been reduced to two. "No major is granted in the Junior College. Those who wish to earn a major in the Senior College may obtain permission to complete as many as thirty hours in one subject in the Junior College."

In the Senior College, of the 120 term hours in addition to those required for graduation from the Junior College, besides teaching (three or four terms) only 15 term hours are required. These are to be selected from the departments of Biology, Sociology, Psychology, and Education, one or all. "Sixty term hours in one department is the minimum requirement for a major in the Senior College."

During this year 1916-17 the present Committee on Course of Study was appointed, so that the work of the next two years will involve the work of this committee. The committee appointed in January, 1917 is:

- F. L. Wright, Professor of Education, Chairman.
- G. A. Barker, Professor of Geology and Geography.
- E. A. Cross, Professor of Literature and English.
- E. D. Randolph, Professor of Sociology.
- E. B. Smith, Professor of History and Political Science.
- J. D. Heilman, Professor of Psychology and Child Study.

Soon after the appointment of this committee, President Crabbe sent the following memorandum to the chairman:

#### REORGANIZATION OF COURSES OF STUDY.

##### 1. Committee

|          |        |
|----------|--------|
| Wright   | Cross  |
| Heilman  | Smith  |
| Randolph | Barker |

##### 2. Suggestions

- a. General principles.
- b. Tabulations from a dozen big normal schools and N. E. A. reports.
- c. Report on above to President.
- d. Final report with directions to departments in preparing material for catalogue, courses, etc.

Acting upon these suggestions, the committee planned a study of the following Normal Schools and Teachers Colleges:

|                     |                   |          |
|---------------------|-------------------|----------|
| California .....    | Los Angeles ..... | Heilman  |
| Iowa .....          | Cedar Falls ..... | Cross    |
| Illinois .....      | Normal .....      | Barker   |
| Indiana .....       | Terra Haute ..... | Randolph |
| Kansas .....        | Emporia .....     | Wright   |
| Massachusetts ..... | Fitchburg .....   | Smith    |
| Michigan .....      | Ypsilanti .....   | Heilman  |
| Minnesota .....     | Winona .....      | Wright   |
| New York .....      | Albany .....      | Cross    |
| Tennessee .....     | Peabody .....     | Smith    |
| Wisconsin .....     | Oshkosh .....     | Barker   |

The purpose of this study was to develop in the committee and members of the faculty a reasonable conscious attitude toward current programs of study by the study of courses offered, length of curricula, professional work offered, "core" requirements, etc., of these representative teacher training institutions. Each member of the committee was to investigate the treatment of his own particular subject or subjects in the institutions studied, also. Each member of the faculty was asked to study one or more of these year books and prepare what seemed to him a reasonable curriculum for his department. The chairman sent the following communication to all members of the faculty.

#### SOME SUGGESTIONS TO MEMBERS OF THE FACULTY IN REGARD TO RECOMMENDATIONS FOR THE COURSE OF STUDY

1. The catalogs of some fifteen institutions will be found in room 100a.
2. Study these catalogs to see just what is being offered and required in your department for the various certificates or degrees offered in these leading normal colleges in the U. S. The committee would like to have your findings.
3. Recommend:
  - a. The subjects in your department, if there are such, which you think should be required of every student who enters C. T. C.

- b. Any subject or subjects in your department which you think would be especially appropriate (or should be required) for majors in the various fields—as (1) domestic science, (2) art (3) history, (4) English, etc.
- c. The group of subjects from which a certain number of hours (name the number) shall be selected in order to have the title of your department or field imprinted upon the diploma.

Work this out for the two-year, three-year and four-year courses.

Suppose we take as an illustration, the requirements for the two-year course in Rural Education. This is simply suggestive.

Required: 52 hours according to the following:

|                                     |         |   |
|-------------------------------------|---------|---|
| County School Methods, Ed. 6.....   | 3 hrs.  |   |
| Rural Education, Ed. 30.....        | 3 hrs.  |   |
| Current Movements in Social Ed..... | Ed. 12a | } |
| Current Movements in Social Ed..... | Ed. 12b |   |
| Educational Values .....            | Ed. 8   |   |
| School Administration .....         | Ed. 24  |   |
|                                     |         |   |

Sociology, Music, Methods or what not with catalog number, and number of hours required.

Elective:

Here list a number of courses from which a certain number of hours (give number) of credit are to be selected.

- 4. Remember:
  - a. That C. T. C. is one of the best teachers colleges in the country and should be somewhat more progressive than others.
  - b. That if you are in doubt as to the courses offered in the various departments most appropriate for majors in your own field, talk to the instructors in the various departments and get their opinion.
  - c. If you are anxious to have the very best course of study possible, make the recommendations for your department the best possible.
  - d. Written suggestions from members of the faculty will be gladly received and considered.
- 5. Finally, this material should be in the hands of the committee not later than Monday, January 29.

After this preliminary work was completed, it was decided that a set of guiding principles should be formulated for the committee and placed in the hands of the faculty as well. Consequently the following is a bare summary of the principles formulated by Professor E. D. Randolph.

#### Summary of Principles

Under the three heads of (I) Content of Course, (II) Organization of Activities, and (III) Administration, we present a brief summary of the detailed analytical outline used by the committee on revision of the program. (Members of the faculty desiring the fuller analysis may have a copy on request.)

- (I) **Content of Course:** This should be determined by (1) the specific problems of educational readjustment which teachers colleges are created to deal with, (2) the teachers' needs of adjustment to the tasks imposed by the public school work, and (3) society's need of
  - (a) protection for children's health and individuality, and of
  - (b) having the next generation adjusted to its most pressing problems of control and progress. Hence we should offer courses

1. To give knowledge and technique required by the public school but not adequately possessed by the teacher.
2. To give points of view and knowledge necessary to secure for society the cooperation of public schools with the spirit of modern education.

Group 1 is covered by the courses in

1. Foundation material for methods
2. Materials and methods for the school subjects—covering
  - a. The history of school experience with the subjects.
  - b. The adaptation of material to differences of ability and destiny due to differences of age, endowment, and sex.
  - c. Observation of good teaching.
  - d. Practice in teaching, under skilled supervision.

Group 2 is covered by the courses in

1. The historical and present relations of school education to social activity, failure, deficit, aspiration, progress, etc., covering
  - a. Adjustment of scholarship, school organization, and administration to individual and social need, and to individual capacity and probable destiny.
2. The preservation and improvement of children's health, and the protection of individuality.

(II) **Organization of Activities:** This should be determined by (1) The specific educational problems that are most in need of solution by teachers colleges, (2) The modern conception of the proper relation of teachers colleges to the public school system (leadership) and (3) The equipment, material and personal, at hand for the purposes of the school. It should

1. Give students, especially beginners, a better acquaintance with their opportunities than they can gather from the catalog.
2. Facilitate students' capitalizing their capacities—through group rather than general requirements, and through generous electives.
3. Require courses only in accordance with the following ideas:
  - a. The necessary attainments for special lines of work.
  - b. The need of public school cooperation with modern education.
  - c. Legal requirements of teachers.
4. Prevent duplication of courses, but secure to allied fields full opportunity to make their peculiar contribution to education.
5. Emphasize a qualitative rather than a quantitative standard for both faculty and students—through placing both at once on a 16-hour rather than a 20-hour basis.
6. Openly recognize the college's leadership function through a prospective adjustment of teaching and research.

(III) **Administration:** This should be determined by the difficulties incident to applying the course of study and securing the ends of the organization of school activities. *Primarily* it covers the following: (1) The characteristic problems of teachers colleges (education), and (2) The typical criticisms

of normal schools and teachers colleges; *secondarily* (3) The need for a reasonable economy in the utilization of the plant. It should

1. Protect students from exploitation—neither requiring nor permitting students to take courses with which they are so familiar as to make other courses more valuable to them; nor assenting to the closing of the most available short cuts to graduation for exceptional students.
2. Facilitate bringing to bear on our educational problems the *available faculty talent*, through office cooperation in research, through arrangements of convenient schedules, etc.
3. Schedule about an equal number of required courses for each period.
4. Schedule one, two, and three hour courses to dovetail with four, three, and two-hour courses, et. seq.

The following is the last page of Mr. Randolph's original thesis justifying certain courses. *The references to the right under principles refer to parts of the original manuscript and not to the summary above.* The system of grading provides that a student may secure *extra credit* for work *exceptionally* well done or he may be *discounted* for work *below normal*. Consequently the minimum hours credit was mentioned in each case, allowing for a discount of from 10% to 20%.

XII. Required program—2 year course—40 hrs.

|  | Mini-<br>mum<br>hours | Sched-<br>uled<br>hours |   |
|--|-----------------------|-------------------------|---|
| 1. Education 8: Educational Values<br>To meet the need for a functional view of subject matter; and the need for ability to co-operate with the spirit of modern educational practice; to lay a basis for the harmonization of educational philosophy and school practice. | 4                     | 5                       | Principles.<br>IV, 1; IV, 2, b, a.<br>II, 2; III, 1, b, etc.  |
| 2. Educational Psychology (or Psych. of School subjects)<br>To meet the need for knowledge of the learning process   | 3.6                   | 4                       | IV, 2, d, etc.  |
| 3. Educational Sociology (3)<br>To meet the need for a social point of view, and the need for a notion of the nature of social institutions and the method of social reconstruction; to lay a basis for wholesome school practice.   | 3.6                   | 4                       | II, 2; III, 2;<br>IV, 3, d, e, etc.   |
| 4. Observation, Teaching, Methods.<br>To meet the need for concrete standards of teaching the adaptation of material to pupils, etc.   | 8                     | 10                      | IV, II, b, I.   |
| 5. Biology 2 (Laws of life and inheritance)<br>To meet the need for an appreciation of the inevitability and persistence of individual differences.  | 3.6                   | 4                       | I, 1, etc.  |
| 6. Library<br>To meet the need for skill in using books and libraries in answering personal questions.   | .8                    | 1                       | IV, a, d.   |
| 7. Functional English  | 3.6                   | 4                       | Needed for intelligent co-operation with the spirit of modern   |
| 8. The Teaching of History   | 3.6                   | 4                       | education. These  |
| 9. Teaching of Geography   | 3.6                   | 4                       | courses will present  |
| 10. The Teaching of Arithmetic   | 3.6                   | 4                       | the evolution of school experience in the case of each subject. Necessarily they will deal with subject matter. |

|                   |                                  |  |
|-------------------|----------------------------------|--|
| Elective Program. | 20 Hrs. elective                 | 15 Hrs. in each subject.<br>to be offered. |
| Music             | Industrial History               | General Science                            |
| Art               | The Teaching of Reading          | Agriculture                                |
| Literature        | Hygiene of School Sub-<br>jects  | Physiology, etc. etc.                      |
| Story Telling     | Child Interests in Teach-<br>ing | Playground Games                           |
| Industrial Arts   | Child Welfare                    | Aesthetic Dancing                          |
| Household Economy | Vocational Studies               | Elem. Woodwork                             |
| Domestic Science  | Bacteriology                     | Typewriting                                |
| Drawing           | Nature Study                     | Sociology                                  |
|                   | Penmanship                       | Ed. 11, 24, 12a, etc.                      |
|                   | Human Geography                  |  |

Every member of the committee met in regular session practically every session during the Spring Quarter 1916-17. I estimate that the committee was in session more than 40 hours during this quarter alone. This, of course, does not include the enormous amount of time spent in the study of catalogs, in individual conference with members of the faculty, and the like, which in the case of some members, amounted to more time than that spent in regular committee meetings. Certain members of this committee have devoted more time to the work of the committee during the Spring Quarters 1916-17 and 1917-18 than to any four or five-hour course given these quarters.

The committee began its work by having the head of each department appear before it. As it was found that it required too much of the time of the committee to educate each individual, the various departments were parceled out to members of the committee who should collect the material, report this to the committee in regular session and if the curricula presented appeared unsatisfactory, he should represent the committee in securing satisfactory rearrangement.

Some of the accomplishments this year for the year 1917-18 were:

1. The normal amount of work per term for a student was reduced from 20 to 16 term hours.
2. Work was definitely outlined for : 1. The General Course. 2. The Supervisor's Course. 3. Kindergarten. 4. Primary Grades. 5. Intermediate and Grammar Grades. 6. County Schools. 7. Industrial Arts. 8. Fine and Applied Arts. 9. Commercial Arts. 10. Household Arts. 11. Household Science. 12. Music. 13. Physical Education. 14. Agriculture.

3. A "core" requirement of 21 hours was contained in each of these groups, the supposition being that this is a professional school, and that all teachers, regardless of what work they expect to teach, should have certain requirements for graduation. Here are the core subjects:

|   |         |
|---|---------|
| Library Science 1, The use of the Library.....        | 1 hour  |
| Education 11, Principles of Education.....            | 4 hours |
| Biology 2, Educational Biology .....                  | 4 hours |
| English 4, Writing and Speaking English.....          | 4 hours |
| Sociology 3, Educational Sociology .....              | 4 hours |
| Educational Psychology 2, Educational Psychology..... | 4 hours |
| Physical Education (with or without credit).          |         |

The committee recommended the substitution of Education 8, Educational Values, for Education 11, The Principles of Education. Still another subject the committee recommended requiring of all students is Education 1, an orientation course. It was the intention of the committee to require this of all students not later than the second term in attendance in the institution. Various members of the faculty representing all the departments of the College were to appear before the students and tell what the particular department which they represented had to offer students. It would have given an idea of the activities and offerings of the institution in an economic way, it seems to me.

Besides these "core" requirements, in each group there were from 27 to 51 hours required as group requirements, leaving from 24 to 48 hours elective for the student. The average requirements for all the groups for the first two years are the professional "core" of 21 hours, group requirements including observation, methods and teaching (8-15 hrs.) of 45½ hours, leaving electives of 29½ hours as an average for each group.

For the completion of the four-year course, "the student at the beginning of the third year must select a major subject for his work. A notation of a major will be made on the student's diploma for the successful completion of 48 quarter-hours in the subject indicated as the major subject. But a student may take as much as 60 hours in the major subject. At least 48 hours of the major work must be done in the Senior College. Students who expect to become high school teachers are required to take a minimum of 10 hours of teaching in the Industrial High School." Persons expecting to major in departments other than those mentioned in (2) above should take the General Course the first two years. There was a total of 494 courses offered in the twenty-four departments of the College. The departments with the number of courses offered follow:

|                                    |    |                             |    |
|------------------------------------|----|-----------------------------|----|
| Education .....                    | 35 | Latin and Mythology .....   | 8  |
| Educational Psychology.....        | 11 | Literature and English..... | 26 |
| Training School .....              | 20 | Oral English .....          | 28 |
| Industrial H. S. ....              | 4  | Romance Languages.....      | 46 |
| County Schools .....               | 8  | Library Science .....       | 1  |
| Biological Sciences .....          | 26 | Music .....                 | 28 |
| Physical Sciences .....            | 17 | Physical Education .....    | 26 |
| Chemistry .....                    | 11 | Practical Arts.....         | 29 |
| Geology and Geography.....         | 14 | Fine and Applied Arts.....  | 20 |
| Mathematics .....                  | 19 | Commercial Arts .....       | 29 |
| Social Sciences .....              | 21 | Home Economics .....        | 37 |
| History and Political Science..... | 16 | Agriculture .....           | 14 |

The justification of this committee, its function, relation to other faculty committees, and the organization for accomplishing its work are set forth by the chairman to the Central Survey Committee in the following communication:

#### COMMITTEE ON COURSE OF STUDY

##### 1. Need of this Committee on Course of Study.

The program of studies, the number and arrangement of curricula, and the various courses offered, are unmistakably indices of the standing of any institution. If the courses of study are not progressive, then the institution shows lack of progress. Not only are curricula needed which prepare teachers for the various teaching positions, but it is just as highly important that courses be formulated with the idea of "*definitely and sharply meeting actual ascertained conditions.*" Since these conditions are continually changing, the courses and curricula of the institution must also be changed. Even if all the necessary data were at hand to formulate a perfect course of study today, there would still be need of a new course tomorrow.

It is of course useless to say that all the desired data are not available; neither are all conditions favorable for making a perfect course of study. As data are secured and conditions become more favorable, the Committee on Course of Study changes requirements. The fact that all normal schools and teachers colleges are making their most rapid changes now, and that teachers need more than ever to get the social point of view in order that they may meet the requirements of the new social order, it is imperative that the Committee on Course of Study work overtime, if it expects to keep Colorado State Teachers College on the map with a progressive program of studies, with up-to-date curricula which will meet the needs of all teachers preparing for a vital teaching profession.

There is, then, a very real demand for a Committee on Course of Study, provided it realizes the true function of such a committee in such



an institution as Colorado State Teachers College, and proceeds with modern principles of curriculum making.

**2. The Function of the Committee on Course of Study.**

The function of this committee is to formulate changes in the constituted curricula of this institution, to institute new curricula when there is demand, and to advise the discontinuance of any curricula which have become obsolete as a preparation for teachers of this state or section; to suggest new courses, and syllabi of either new or old courses if in the opinion of the committee changed conditions justify. The Extension Department, with the offering of some two hundred and twenty-five courses, affords the committee one of its largest fields of usefulness along this line. It is highly important that the courses offered by correspondence not only be worth while but that they be the best that can be offered in that field by this institution. But without pressure being continually applied by some individual or committee, the courses offered in the Extension Department may be at least not wholly worthy of this Teachers College.

**3. Obstacles to the Work of Committee on Course of Study.**

There are many obstacles in the way of the committee's wisely carrying out its functions, among which might be named:

- a. Lack of well-defined guiding principles in the minds of the entire personnel of the committee.
- b. Lack of data with regard to needs of the state for the various types of position, number of graduates from the various curricula of this institution, together with the type of positions they secure, so as to intelligently plan required courses and curricula.
- c. Lack of much needed intelligent co-operation with other faculty committees. If this correlation of the work of the various committees were observed, there would not be such a dearth of data.

For instance, the research committee might furnish data concerning the greatest needs of the state so far as teaching positions are concerned. It may be that if the Committee on Course of Study were made to feel the serious shortage in well-trained rural teachers, it would recommend to the President of the College that the County Schools curriculum and department be materially improved and extended. There is a serious need of close co-operation with the Director of Extension as proper courses are developed and offered in that department.

There is need of co-operation with the War Council so that each course may be made to reflect, to some extent at least, the social conditions as they exist because of the war.

There is needed by this Committee on Course of Study the information which the committee on the placing of teachers might give. Such data as the number of graduates from the various courses, the sort of positions secured, etc., are very much worth while to the Committee on Course of Study.

The duties of the Committee on Duplications and those of the Committee on Course of Study are interrelated.

The Survey Committee will have some facts which will be valuable in assisting the Committee on Course of Study in arriving at a sane basis for reorganizing certain curricula and courses, perhaps.

The Committees on Text Books and Library Material should be advised that the most efficient presentation of many courses offered in the institution is being interfered with because the most valuable and most recent literature on that subject may be at the bindery, or more probably in the library store room packed for binding. The school should have access to any material within ten days after it is desired by any faculty member for class work. Particularly is this delay in securing material

detrimental to Extension courses. When a student is required to wait two or three weeks for material the interest in the course is dead.

- d. Lack of means of placing the work of the committees before the teachers and school men of the country. Since the annual catalog is not read, some other agency such as bulletins which give concretely the information needed concerning our courses should be published.
- e. Lack of a thoroughly unified faculty. *It is impossible to get an adequate response from faculty members on any question regardless of its importance.* To a very important question in regard to needed changes in the curricula of the institution, less than fifteen members of the faculty responded. So long as this condition exists, the Committee on Course of Study cannot hope for a realization of its functions, even though it plans a progressive program of studies. Its work is of little avail without the co-operation of a progressive faculty.

In order that the above difficulties may be overcome to as great a degree as possible the guiding principles shall be reviewed and changed if such change seems advisable, at the beginning of each year, and the type of organization essential for carrying forward progressive curricula effected.

#### 4. Guiding Principles in Curricula Making.

"The general principles that are to guide course makers in teachers colleges must be found in (1) the aims of education, (2) the definition of the function of teachers colleges in the field of education, and (3) the limiting factors of the historical situations in which they operate.

The aim of education "is to CAPITALIZE INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES."

"The function of a teachers college is TO PUT TEACHERS IN THE WAY OF CAPITALIZING INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES. More specifically a teachers college is to enable teachers both to discharge acceptably their usual duties in the public school and at the same time to cooperate intelligently with the spirit and in the technique of modern education."

In regard to the limiting factors of the historical situations, one might remark that "a course for teachers which was so modern as to ignore custom, tradition, and the like, would also be so detached from conditions in the field as to be ignored by practical school men. The way of progress is evolution rather than revolution. It is by progressive forward-facing adjustment to existing conditions, aims, materials, organizations, practices."

Only with definite principles before a committee on course of study can a teachers college hope "to insure to society teachers who will be able to provide a citizenry competent to meet its impending problems efficiently." In short, the Committee on Course of Study must have definitely in mind "what social needs are most pressing, what opportunities exist in public schools for making knowledge of these conditions dynamic." (These quotations are from *Guiding Principles for the Committee on Course of Study*, by E. D. Randolph.) And it must then frame the program of studies with curricula and courses which will imbue every prospective teacher, so far as possible, with this same respect—even reverence—for social conditions.

The following three general principles formulated by Mr. Randolph were adopted:

1. That, since schools for teachers have certain general and characteristic responsibilities that differentiate their work from that of liberal arts colleges they must require of all graduates a core of *common* studies, the "*professional studies of schools for teachers*," which represent the *professional responsibilities common to all public school teachers*.

2. That since each well-marked teaching position represents in addition to these *common* (or professional) *responsibilities a group of specific responsibilities peculiar to the grade of the work and the age of the pupil, additional requirements covering these specific responsibilities should be added,—*giving a number of differentiated curricula,—corresponding to the typical school positions.

3. That beyond these two sets of requirements the elective principle should be applied.

#### 5. Organization of the Committee on Course of Study.

In order that the best results may be attained, the following organization of the committee seems essential:

The committee shall be comprised of at least seven members with representatives from the departments of Extension, Education, Psychology, and Training Schools. Furthermore, it is advisable to have the following faculty committees represented on the Committee on Course of Study: Research, Advanced Standing, Duplications, Official Publications, Teachers Bureau.

There should always be a majority of the committee who have been members of the committee at least one year, if it is possible to secure such majority from the faculty.

It is advisable that the chairman of the committee should have had at least two years experience on the committee.

There shall be a secretary who shall keep a careful record of the work of the committee.

In order that the work of the committee may be carried forward more expeditiously, the following sub-committees are appointed for the year 1918-19:

Text books and syllabi for courses, Heilman, Smith, Randolph; Extension, Randolph, Smith, Wright; Research, Heilman, Hotchkiss; War Council, needed changes due to changed social conditions, such as the war, Smith, Barker; Teachers Bureau, Cross, Bell; Duplications, Hotchkiss, Bell; Survey, Randolph, Cross, Heilman, Smith, Hotchkiss, Wright; Library, use of current magazines, Barker, Randolph, Smith; Bulletins on Course of Study and Revision of Courses as printed in present catalog, Cross, Randolph, Wright.

During the year 1917-18 in preparation for the following year the committee spent at least 30 hours in regular committee meetings and a great deal of time in conference with faculty members. I think I can do no better than to quote from the catalog for the year 1918-19, pages 26-28. This gives largely the work of the committee:

#### THE COURSE OF STUDY

Colorado State Teachers College is a technical school like a medical or engineering school. Its business is to train teachers for all types of school maintained by the State. The college has abandoned the idea that there is a possibility of training teachers for the various kinds of teaching through the medium of a single course of study or a scattered elective course.

To meet the requirements for teachers for all the kinds of schools the college provides the following courses of study, and asks each student entering in June, 1918, or after, to select a course definitely and to consult the head of the department directing that course of study as a permanent adviser. Students who registered previous to that date may continue with the old course of study and complete that course if they can do so within reasonable limits of time; but all who can readily make the adjustment are advised to select one of the new courses and complete their work under the new plan.

Length of Course.—Each course is planned to occupy twelve quarters (a quarter is approximately twelve weeks in length). Upon the completion of the course the degree of Bachelor of Arts in Education will be granted. The diploma is a Colorado life certificate. Each course is so arranged that it may be divided into Junior College (two years) and Senior College (two additional years). The Junior College course may be completed in six quarters. The student who chooses to be graduated at the end of the Junior College course receives the Colorado life certificate but no degree. Students who come to the College with advanced standing, and those who gain time by doing work of exceptional quality, may shorten the course somewhat.

1. County Schools.  
Directed by .....Mr. J. H. Shriber  
Planned for those who expect to teach in one or two room schools  
and for those who are, at the time of enrolling, in doubt about  
what phase of teaching they wish to take up.
2. Education.  
Directed by ..... Mr. T. C. McCracken  
Planned for students majoring in Education and for those who  
expect to become Superintendents and Supervisors.
3. Psychology.  
Directed by .....Dr. J. D. Heilman  
Planned for students who expect to pursue Psychology as a major  
subject for the purpose of doing special work in this field in public  
and normal schools.
4. Kindergarten.  
Directed by .....Mr. E. A. Hotchkiss  
Planned for students who expect to become kindergarten teachers  
or supervisors of kindergartens in public and normal schools.
5. Primary Grades.  
Directed by .....Mr. E. A. Hotchkiss  
Planned for students who expect to become primary teachers.
6. Intermediate Grades.  
Directed by .....Mr. E. A. Hotchkiss  
Planned for students who expect to become teachers in the in-  
termediate grades
7. Grammar Grades.  
Directed by .....Mr. E. A. Hotchkiss  
Planned for students who expect to become grammar grade or  
junior high school teachers.
8. Biological Sciences.  
Directed by .....Dr. L. A. Adams
9. Physics.  
Directed by .....Mr. F. L. Abbott
10. Chemistry.  
Directed by .....Mr. C. J. Blout
11. Geology, Physiography and Geography.  
Directed by .....Mr. G. A. Barker
12. Mathematics.  
Directed by .....Mr. G. W. Finley
13. Social Sciences.  
Directed by .....Dr. G. R. Miller
14. History and Political Science.  
Directed by .....Mr. E. B. Smith
15. Latin and Mythology.  
Directed by .....Mr. J. H. Hays
16. Literature and English.  
Directed by .....Mr. Allen Cross
17. Oral English.  
Directed by .....Miss Francis Tobey
18. Modern Foreign Languages.  
Directed by .....Dr. E. S. Du Poncet
19. Music.  
Directed by .....Mr. J. C. Kendel
20. Household Science.  
Directed by .....Miss Helen Payne
21. Household Art.  
Directed by .....Miss Helen Payne
22. Industrial Art.  
Directed by .....Mr. S. M. Hadden
23. Fine and Applied Art.  
Directed by .....Mr. Walter F. Isaacs
24. Commercial Arts.  
Directed by .....Mr. A. O. Colvin
25. Agriculture.  
Directed by .....Mr. J. H. Kraft
26. Physical Education and Playground.  
Directed by .....Mr. Ralph Glaze

General Requirements.—The College requires of all students a group of courses which form a foundation for all teacher-training. These are called "The Professional Core." In addition to these it requires another group which it regards as essential in the training of young people for the teaching profession. Each course, therefore, is made up of the following subjects, plus the departmental requirements listed separately in the sections of this Year Book devoted to each department.

## JUNIOR COLLEGE

### First Year

|   | Hours. |
|---|--------|
| 1. The Professional Core:   |        |
| Biol. 2.—Educational Biology (Bionomics)  | 4      |
| Ed. 8.—Educational Values   | 4      |
| Soc. 3.—Educational Sociology   | 4      |
| 2. Other Required Subjects:   |        |
| Eng. 4.—Speaking and Writing (Students may be excused by proving proficiency)                                     | 4      |
| Hyg. 1.—Personal Hygiene (required only of women students)  | 4      |
| Phys. Ed.—Physical Exercise (required of all students at least two-thirds of the quarters they are in residence). |        |
| 3. Subjects Required by the Department, and Elective Subjects.  | 31     |

### Second Year

|   | Hours.   |
|---|----------|
| 1. The Professional Core:   |          |
| Psych. 2a.—Educational Psychology   | 4        |
| Psych. 2b.—Ed. Psychology (continued)   | 4        |
| Ed. 10.—The Elementary School Curriculum  | 4        |
| Pol. Sc. 30.—Political Adjustment   | 4        |
| 2. Other Required Subjects:   |          |
| Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).       |          |
| The following three courses are required of all students who expect to take the Junior College diploma: |          |
| Tr. Sch. 1.—Methods and Observation   | 4        |
| Teach. 1.—Practice Teaching in the Elementary School  | 4        |
| Teach. 2.—Practice Teaching in the Elementary School.   | 4        |
| 3. Subjects Required by the Department, and Elective Subjects.  | 20 or 32 |

## SENIOR COLLEGE

### Third Year.

|   | Hours. |
|---|--------|
| 1. Professional Core:   |        |
| Psych. 104.—Psychology of the Elementary School Subjects, or Psych. 105.—Psychology of the High School Subjects | 4      |
| 2. Other Required Subjects:   |        |
| Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).               |        |
| 3. Courses Required by the Department, and Elective Courses   | 40     |
| 4. In the Third or Fourth Year.   |        |
| The following courses are required of those who expect to teach in High Schools:                                |        |
| H. S. 105.—Principles of High School Teaching   | 4      |
| H. S. 103.—Practice Teaching in the High School   | 4      |

### Fourth Year

|  | Hours. |
|--|--------|
| 1. The Professional Core:  |        |
| Ed. 111.—Principles of Education   | 4      |
| Ed. 116.—The High School Curriculum  | 4      |
| Psych. 108.—Educational Tests and Measurements (Ed. 116 may be omitted by students who expect to become High School teachers.) | 3      |
| 2. Other Required Courses:   |        |
| Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).                              |        |
| 3. Courses Required by the Department, and Elective Courses  | 37     |

## JUNIOR COLLEGE

### Summary:

|                                   |    |
|-----------------------------------|----|
| The Professional Core.....        | 28 |
| Observation and Teaching .....    | 12 |
| English and Hygiene.....          | 5  |
| Major Subjects and Electives..... | 51 |

## SENIOR COLLEGE

|                                    |    |
|------------------------------------|----|
| The Professional Core.....         | 19 |
| Observation and Teaching .....     | 8  |
| Major Subjects and Electives ..... | 69 |

Total .....192

Majors.—A student completing any one of the courses of study catalogued in this Year Book will have a notation on his diploma showing that the given subject was his major. This notation will appear only on the Senior College Bachelor of Arts diploma, or the diploma of Masters of Arts.

Minors.—A student earning a major notation may, if he so desires, select some other subject as a minor. He must elect at least twenty-four hours within the four years to earn the minor notation.

In way of summarizing the requirements for 1918-19 briefly, I have selected a dozen of the twenty-six groups in which the student may major and give certain data. Ninety-six hours are required for the completion

of the first two years of work for the Life Diploma, and one hundred ninety-two for the completion of the four-year course leading to the degree, Bachelor of Arts in Education. The courses required such as the professional core, Observation and Teaching, and any other required subjects remain constant for all the departments.

|                             | Average | Education | Educational Psychology | Kindergarten | Primary | Intermediate | Grammar Grades | County Schools | Geology & Geography | Music | Commercial Arts | Home Economics | English |
|-----------------------------|---------|-----------|------------------------|--------------|---------|--------------|----------------|----------------|---------------------|-------|-----------------|----------------|---------|
| Professional Core (2 yr)    | 28      | 28        | 28                     | 28           | 28      | 28           | 28             | 28             | 28                  | 28    | 28              | 28             | 28      |
| Observation & Tchg. (2 yr)  | 12      | 12        | 12                     | 12           | 12      | 12           | 12             | 12             | 12                  | 12    | 12              | 12             | 12      |
| Required by Dep't. (2 yr)   | 31      | 27        | 4                      | 29           | 31      | 33           | 36             | 46             | 31                  | 31    | 36              | 44             | 28      |
| Other req. subjects. (2 yr) | 4-5     | 4-5       | 4-5                    | 5            | 5       | 5            | 4-5            | 4-5            | 4-5                 | 4-5   | 4-5             | 5              | 4-5     |
| Electives. (2 yr)           | 20      | 24        | 48                     | 22           | 20      | 18           | 15             | 6              | 20                  | 20    | 16              | 7              | 23      |
| Professional Core (4 yr)    | 47      | 47        | 47                     | 47           | 47      | 47           | 47             | 47             | 47                  | 47    | 47              | 47             | 47      |
| Observation & Tchg. (4 yr)  | 20      | 20        | 20                     | 20           | 20      | 20           | 20             | 20             | 20                  | 20    | 20              | 20             | 20      |
| Required by Dep't. (4 yr)   | 67      | 77        | 35                     | 45           | 60      | 63           | 64             | 96             | 70                  | 68    | 68              | 104            | 57      |
| Other required subj. (4 yr) | 4-5     | 4-5       | 4-5                    | 5            | 5       | 5            | 4-5            | 4-5            | 4-5                 | 4-5   | 4-5             | 5              | 4-5     |
| Electives. (4 yr)           | 53      | 43        | 85                     | 75           | 60      | 57           | 56             | 24             | 50                  | 52    | 52              | 16             | 63      |

It is not difficult to figure the per cent of the course given to professional work, to electives, etc. Counting Observation and Teaching in with professional work, 41 $\frac{2}{3}$ % of the work of the first two years and almost 35% of all four years, is given to this work. The work required by the department runs from 4 $\frac{1}{2}$ % for the Department of Educational Psychology, to almost 48% for the Department of County Schools, in the first two years. For the four years the required work runs from slightly over 18% in Educational Psychology to over 54% in Home Economics and electives from 8 $\frac{1}{3}$ % in Home Economics to over 44% in Educational Psychology. This elective work has increased from about 16 $\frac{2}{3}$ % in 1901, to the professional work from about 20% for the same year.

It is indeed interesting to note the steady growth of this institution from a normal training high school accepting persons not eighth grade graduates into a four-year teachers college demanding for entrance graduation from a four-year high school and from an institution of five faculty members offering forty courses into an institution with a faculty of seventy-three, who offer a total of four hundred ninety-four courses. And this came to pass in less than thirty years. It is interesting to note how Biology was mentioned as being essential for those preparing to teach as early as 1897-98; how Educational Psychology was introduced this same year and little of "general" psychology was ever offered in the institution; and how nature study was introduced as a required course in 1900-01. One can hardly help noticing the fact that Educational Sociology has for many years played an important part in the curriculum and that the history of education early gave way to The Principles of Education and Educational Values. Surely Colorado State Teachers College was one of the first to require Bionomics for graduation. One can see the standard of the institution rise as he views the following statements:

1900-1901—"A norm for school work is 25 recitations a week. A student who wishes to take more, must have special permission."

1904-05—"Regular year's work usually consists of four subjects of five recitation periods a week with one additional recitation per week in pedagogy throughout the senior year"—21 recitations per week with opportunity to take more.

1918-19—"A student registers usually for fifteen or sixteen hours. In case a student makes more than two grades below 'B' during a given quarter, he will be limited to fourteen hours the following quarter." There is provision for brilliant students enrolling for a maximum of 18 hours.

In conclusion one may well remark that Colorado State Teachers College has had a steady upward march toward a definite goal. Although there may have been a number of mistakes in organization and administration, one cannot study the development of course requirements without a feeling of pride and satisfaction at her accomplishments. As Chairman of the Committee on Course of Study, I am inspired to see to it that the institution keeps its place in the front rank among teachers colleges with regard to courses and curricula.

I am confident that the other members of the committee share with me this desire to keep the program of studies of Colorado State Teachers College among the foremost in the United States.

With this in mind several studies have been made by members of the committee.

The first study made involved a survey of all normal schools and teachers colleges in the United States as to the amount of English grammar, composition and literature required for graduation. Besides asking this requirement, the committee asked for the following:

"To the committee struggling with the problems of a new curriculum there is something much more important than these figures (figures which showed requirements of 30 representative schools). They want to know **what conditions were taken into consideration, what underlying reasons guided the men who made these** English requirements. Hence the following inquiry:

"**Will you kindly state what criteria or guiding principles were applied in selecting (a) the kind and (b) the amount of work in English required for graduation from your institution?**"

Another study undertaken was that of the courses offered through the Extension Department. The study involved the number of courses offered by extension by the members of the faculty, courses for which there is greater demand, estimate of time required to make syllabi, time required for grading units, comparative value of courses given in residence and by extension, difficulties and valuable features of extension work and finally suggestions for improvement of the work of the Extension Department.

The following communication from the chairman of the committee to all members of the faculty offering subjects required of all students in the institution is self explanatory: The Committee on Course of Study asks your reaction to the following question:

"To what extent is your required course (core subject)..... adjusted so as to meet the needs of majors in the various fields such as Home Economics, Industrial Arts, Kindergarten, Grammar Grades, County Schools, etc? Please state specifically the adjustments made in class room exercises, assignments, etc., with regard to majors in each department."

Here is a test planned for and given to all persons enrolled in required subjects for several quarters. The test was ordinarily given by members of the committee or by the office force at the close of the quarter.

Ask that none write his name on the paper.

Answer honestly and carefully. Otherwise the test is useless.

The Examiner should make no comment.

1. What were the best features of this course?

2. In what respects has the course been disappointing to you?

3. In your opinion should the course be required of all prospective teachers? Give definite reasons for your answer.

4. How might the course be improved in your opinion? If you answered Question 3 in the negative, do you think changes could easily be made, which would make it worthy of its place as a required course?

5. Make any suggestions which might be valuable in helping determine what subjects should and what subjects should not be required of graduates of this institution.

By request of Committee on Course of Study and approved by the President.

The committee wanted to be assured that all the work offered in the College was of college grade. Consequently the following information was required of all members of the faculty who taught such subjects as English, Geography, History, Arithmetic, etc.

"The Committee on Course of Study asks your reaction to the following question:

"To what extent is the material presented in your course....., a review of what the student has had, or at least has been 'exposed to' either in the grades or in the High School? Justify this amount whether it be large or small."

One of the most recent studies made by the committee is explained by the following communication to members of the faculty:

October 25, 1918.

TO MEMBERS OF THE FACULTY:

Many changes have been made in the program of the College due to the demands of the government. The Committee on Course of Study desires information concerning the influence of the war, since its beginning, on the work done in Teachers College. Please make concrete statement of the changes that have been introduced into your work, as indicated below.

1. Are you giving courses that are listed by the government as part of the S. A. T. C. program?

2. What changes if any are being introduced into your teaching this year, in function, in method, and in material, as a result of the war conditions?

(This should not include the S. A. T. C. Courses)

3. What changes, if any, were made last year in the function, in the method and in the material of your teaching, as a result of the war?

4. Were new courses arranged or was any change of emphasis made with respect to old courses as a result of war conditions?

A reply not later than Thursday morning, left at Mr. Culbertson's office, will be appreciated.

Very truly yours,

E. B. SMITH,

Secretary of Committee on Course of Study.

The information obtained from these studies was quite satisfactory on the whole.

The returns reveal the fact that the instructors in the College are adjusting their courses to meet the needs of their students and the conditions of the time to a remarkable degree. For instance it was found that in the last study mentioned above, "one reply only indicated no change in the work due to the war conditions; this applied to work in English that deals with an early period of English literature. The same reply indicated that the Shakespeare course is introduced with a war setting."

Furthermore these studies have tended to make the instructors in this institution more critical of the work offered and to call to their attention the necessity of adjustment of the work to meet the needs of the individual pupils as well as to meet the needs of the times.

I close this discussion with a brief summary of the factors which have influenced the courses and curricula offered in this College.

#### FACTORS IN THE DEVELOPMENT OF COURSES OF STUDY COLORADO STATE TEACHERS COLLEGE

1890-91.—A four year course presupposing the completion "of the grammar department of the public graded schools" or "similar proficiency" as requisite for entrance, was instituted. The Special Review School was announced for the last four weeks of the spring term.

1891-92.—A year of preparatory work was introduced for those who had not yet completed the eighth grade work.

1892-93.—There was a year of work known as the "Post Graduate Course." Entrance requirement data reads: "Graduates of high schools in the State of Colorado who have completed the high school course as adopted by the State Teachers Association will be admitted without examination to the junior class." P. 71.

1893-94.—The kindergarten department was started with arrangement for a special kindergarten certificate.

1894-95.—Kindergarten commencement for graduates from that department.



- 1897-98.—“At the last meeting of the Board of Trustees, June 2, 1897, a resolution was passed admitting only high school graduates or those who have an equivalent preparation and practical teachers who hold first or second grade certificates. This makes the institution a professional school in the strictest sense.”
- 1898-99.—Post graduate course dropped.
- 1899-1900.—Announcement of an examining board for graduates. Work outlined in three years—Sophomore, Junior, and Senior. High School graduates are admitted to the junior class. Persons who hold teachers' certificates will be admitted to the sophomore class without examination.
- 1900-01.—Institution goes to the semester basis. First faculty Committee on Course of Study. A norm for school work is 25 recitations a week. Electives introduced into the institution for the first time. A high school was instituted, offering work through the ninth and tenth years, in order that some of the best students may have an opportunity for practice.
- 1901-02.—Work of the high school outlined for 9th, 10th and 11th grades. Normal College Course leading to A. B. degree announced. Major group requirements instituted, five recitations a week for four years given to this major.
- 1902-03.—Course for supervisors of drawing introduced.
- 1903-04.—Announcement of first regular Summer term, June 14-July 22, 1904.
- 1904-05.—Return to the three terms of 13, 14, and 11 weeks with an eight weeks Summer term.  
Fellow assistants in the various departments announced for first time.  
Announcement of (1) normal course leading to the Pd. B. degree, intended to qualify teachers for the elementary schools, and (2) the normal college course leading to the degree Pd. M. intended to qualify teachers for work in high school.  
Announcement of a preparatory course of one year again this year “for those not high school graduates but mature enough to prepare for the regular course in one year.”
- 1905-06.—Special diplomas granted to students furnishing work in the departments of Manual Training, Domestic Science, Modern Languages, Music, Art, Physical Education, and Kindergarten. Although it seems it was not intentionally done there seems to be a “core” requirement this year.
- 1908-09.—Definitely planned college courses of four years leading to A. B. degree offered.  
Conscious core required.
- 1909-10.—Theses required for A. B. graduates.
- 1912-13.—Organization into Junior and Senior Colleges. Year Book appears as the Year Book of Colorado State Teachers College instead of Normal School.
- 1914-15.—Announcement of Graduate College work for which the Master of Arts degree is given. This had been announced first in the Summer Announcement of 1913-14. The first degrees were granted, however, June 4, 1914.
- 1915-16.—All special department diplomas were discontinued “and in their place, a notation is inserted in the regular diploma indicating the department in which the student has done his major work.”

- 1916-17.—Appointment of the present Committee on Course of Study with the avowed purpose of a complete reorganization of the curriculum. Guiding principles formulated, purpose of the committee analyzed and a definite plan of organization for accomplishing the essential tasks.
- 1917-18.—Material changes in the various curricula. Opportunity given for greater choice of majors.  
The Industrial High School becomes a four-year high school instead of a three-year course. Graduates of the school have been admitted to the College.
- 1918-19.—Opportunity given for majors in twenty-six groups. Great improvement in the "professional core" and the "make-up" of the Year Book.  
Work outlined definitely for four full years above the four-year high school the first time in history of institution. The work of this year is really worthy of a great teachers college. Let us hope that there may be no backward movements in the curriculum making of Colorado State Teachers College.

# THE GENERAL COURSE OF STUDY

by *S. M. Hadden*

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1. The College offers two, at least, groups of courses. Those that might be called special subject group courses and second, other subjects that might be classed general educational subjects. We offer courses that could be classified under this first heading in practically all the departments of the College. In other words, our institution offers a variety of subjects in various departments. We feel it has a fairly rich curriculum from the standpoint of opportunity educationally.

Below are enumerated a few of the departments in which so called special subject courses are offered: Biological Science, Physiological Science, Geography, Geology, the Social Sciences, History and Political Science, Library Work, Music, Physical Education, Industrial Art, Fine and Applied Arts, Commercial Arts, Household Science, Household Arts and Agriculture.

It is reasonable to assume that in the minds of most people who think of education in terms of the subjects in the curriculum those that have persisted for a long period of time in the public schools are the general subjects of education, which are prominent in all of our public school curricula. In other words, those subjects that have had the traditional background and that make clean handed, white collared genteel subjects. All subjects that are somewhat new and that touch the lives of people from the viewpoints not formerly considered in the field of education might be listed as Special Subjects.

With this statement as a guiding basis for such grouping of subjects, we will be able to select from all the departments of the College courses those that deal with material which touches the experiences and lives of people in ways in many fields not formerly considered essential in the field of education.

Possibly the subjects, reading, writing and arithmetic, with enriching additions would be the only subjects that would not be included in this group of special subjects, but for fear our interpretation is too broad to satisfy the committee, which outlined the fields it wished our institution to report on in this survey, we are confining the major part of this section of the report to such subjects as Music, Agriculture, Household Sciences, Household Arts, Industrial Arts, Commercial Arts, Applied Arts. The grouping enumerated in the last paragraph might be classified under the following heads:

(a) Vocational subjects: those that should be taught in such a way that they will react upon the individual as a member of society, making of him a more efficient unit in that organization, preparing him to earn not only a living but also helping him select the occupation or occupations that seem best suited to him, giving him a wider viewpoint of the possibility or lack of opportunity for an individual to find himself industrially than through his contact with the ordinary system of work outlined in our public school curriculum.

Again it is the thought of the committee that not only the bread and butter side of the vocational work of the individual should be considered but also the side that deals with the individual in his preparation in order that he may become an active industrial social uplifting unit in society. All this means that an individual should be prepared as widely as possible, considering the time allowed for his educational training, to occupy a progressive place in the community in which he lives.

2. All of the special subjects in our school are offered in separate curricula in such groups as: County Schools, Music, Household Science, Household Art, Physiography, Geography, Mathematics, Social Sciences, History, Industrial Art, Fine and Applied Art, Commercial Arts, Agriculture, Physical Education and Playground.

Some of these curricula are organized as two, three, four and five year courses. This group really covers in our College practically the entire group of so-called special subjects that are ordinarily taught in the public schools of the United States together with the so-called educational background that seems to be necessary in the education of a teacher, even if there are no real educational materials that have been selected as final as yet. In other words this so called essential group of material is a variable and is as yet largely unknown.

3. The materials we have defined as special subject materials in section one of this division of the report are in a number of cases required in the kindergarten, primary and intermediate, country schools and general courses. These courses are supposed to prepare teachers for regular grade positions.

We can expect then, that outside of the required core subjects the balance of the work will be largely in the group we are pleased to call the three "R" group. Going over these courses of study carefully we find a very meager sprinkling of work in Music, Art, Nature Study, Industrial Arts, Agriculture, Household Science and Household Art, and a great deal of work in the teaching of such subjects as Geography, Arithmetic, History and Reading, together with Training School courses that bear directly on these particular fields. Again a traditional background. It seems to be because it has been this way in the public schools course of study for a long period of time.

It is really impossible to state to what extent the preparatory now given in these various curricula is adequate, for this would entail a survey of the entire curriculum of the College. We are contemplating making such a survey when we have the time.

4. It is again impossible to state how long the curriculum should be in years to afford adequate preparation. Adequate preparation is such a relative term that it is impossible to define it with any degree of satisfaction. The implication is, however, that every student graduating from the College should be well versed in the general educational field, whatever that means, and in a group of related special fields, and in the presenting of this material to students, in their training for the teaching profession. Note that we said the implication seemed to be—again looking back without any particular reason why.

Our institution trains teachers for the elementary and high school and in some cases for work in higher institutions of learning. The degree of skill in these three groups is largely dependent upon the salary paid for teachers in these various positions. To illustrate: An elementary school teacher with a salary of fifty to sixty dollars per month for from seven to nine months during the year cannot be expected to have as wide an educational training as the individual who is to work for ten months a year at a salary of twelve to fifteen hundred dollars paid in twelve installments. In general we can assume that in the schools of our country the salary paid, is closely associated with the amount of training individuals may be expected to receive in preparation for their teaching work.

Our School then offers a varied curriculum to meet the conditions as stated above. In some cases a two-year curriculum would be really more than a student would be expected to complete if he were going to teach in some of our poorly paid districts. The three year course is supposed to prepare students for high grade elementary schools and small high schools. Our four year course is for the general high schools

of the country. Most of the teachers that finish our graduate course specialize in some particular field, obtaining positions in colleges, normal schools or as supervisors of special work in cities.

For further illustrations of the types of curricula offered in our special department courses I am listing in a general way only, the departments and the required courses for graduation in each of these departments. The work in the special departmental courses falls fundamentally under three main heads:

1. Educational core subjects, or those that the course of study committee has worked out as being fundamental in the fully rounded education of a student preparing to teach.
2. The courses required in a department, or the fundamental group of technical courses necessary for an individual to know, together with the sequential organization of this material in a course of study, will constitute the main material of this group.
3. Courses from other departments that in the minds of some of the teachers in the major departments are necessary if the individual is to be an efficient teacher.

The following pages of this section of the survey illustrate in a definite way types of courses that are offered in special fields or groups of fields.

We had the courses listed below as specials at the time we started this survey.

Our school then offers a varied curriculum to meet the conditions as

1. General Course.

This course is really special in that it solves, or is supposed to solve, all problems not solved in other special courses:

A two-year course planned for those students who expect to become general grade teachers, or who wish to begin specializing in some subject in which they expect to major in the third and fourth years of their College course. Students who expect to become high school teachers of some one academic subject such as Modern Language, History, English, Mathematics, etc., should take their first two years in this group.

#### Details of the Course

|   |          |
|---|----------|
| Library Science 1.....  | 1 hour   |
| Education 11 .....  | 4 hours  |
| Educational Psychology 2 .....                                | 4 hours  |
| Biology 2 .....   | 4 hours  |
| English 4 .....   | 4 hours  |
| Sociology 3 .....   | 4 hours  |
| Physical Education (with or without credit).....              |          |
| Child Hygiene 1 .....   | 2 hours  |
| Education (selected) .....                                    | 2 hours  |
| Observation, Methods and Teaching .....                       | 12 hours |
| The Teaching of Geography 12.....                             | 2 hours  |
| The Teaching of Arithmetic 8.....                             | 2 hours  |
| The Teaching of History 13.....                               | 2 hours  |
| The Teaching of Reading 9.....                                | 2 hours  |
| General Science or Nature Study .....                         | 3 hours  |
| Electives (as much as 24 hours may be in one department)..... | 48 hours |

#### 2. (a) Departmental Courses of an Academic Type.

Associated with the General Course are particular department majors that may be taken leading to graduation from the four year course of the College with a major notation in that particular de-

partment. The list is not complete in the catalog as new ones are now being added.

(b) Other Special Courses offered in the form of curricula.

3. Supervisors' Course.

This is a course extending through four years of College and planned to prepare those who take it for such positions as school principals, superintendents, and normal school supervisors and training teachers. The work of the first two years of the course is in part prescribed and in part elective, the same as in other courses. The third and fourth years are largely worked out, and will not, therefore, be announced until the opening of the Fall Quarter.

4. Kindergarten Course.

Details of the Course

|  |          |
|--|----------|
| Library Science 1 .....                          | 1 hour   |
| Education 11 .....                               | 4 hours  |
| Educational Psychology 2 .....                   | 4 hours  |
| Biology 2 .....                                  | 4 hours  |
| English 4 .....                                  | 4 hours  |
| Sociology 3 .....                                | 4 hours  |
| Physical Education (with or without credit)..... |          |
| Educational Psychology 1.....                    | 2 hours  |
| Training School 33 .....                         | 3 hours  |
| Observation, Methods and Teaching .....          | 15 hours |
| Training School 15 or 31 .....                   | 3 hours  |
| Training School 5 or 6 .....                     | 4 hours  |
| Training School 32 .....                         | 4 hours  |
| Training School 37 .....                         | 4 hours  |
| Music 3 .....                                    | 4 hours  |
| Physical Education 7.....                        | 3 hours  |
| Physical Education 6.....                        | 2 hours  |
| Art 1 .....                                      | 3 hours  |
| Electives .....                                  | 26 hours |

Note: Kindergarten students must take adequate piano work unless they have previously had its equivalent.

5. Primary Grades Course.

Details of the Course

|  |          |
|--|----------|
| Library Science 1 .....                          | 1 hour   |
| Education 11 .....                               | 1 hour   |
| Biology 2 .....                                  | 4 hours  |
| English 4 .....                                  | 4 hours  |
| Sociology 3 .....                                | 4 hours  |
| Educational Psychology 2 .....                   | 4 hours  |
| Physical Education (with or without credit)..... |          |
| Training School 5.....                           | 4 hours  |
| Training School 6 .....                          | 4 hours  |
| Training School 33 .....                         | 3 hours  |
| Training School 1 .....                          | 4 hours  |
| Training School 3 .....                          | 3 hours  |
| Black Board Drawing .....                        | 2 hours  |
| Teaching .....                                   | 12 hours |
| Zoology 5 .....                                  | 4 hours  |
| Training School 15 .....                         | 2 hours  |
| Physical Education 7 Folk Dancing .....          | 2 hours  |
| Art 1 .....                                      | 2 hours  |
| Oral English 3 .....                             | 2 hours  |
| Training School 32 .....                         | 2 hours  |
| Electives .....                                  | 24 hours |

6. Intermediate and Grammar Grades.

### Details of the Course

|   |          |
|---|----------|
| Library Science 1 .....                           | 1 hour   |
| Education 11 .....                                | 4 hours  |
| Educational Psychology 2 .....                    | 4 hours  |
| Biology 2 .....                                   | 4 hours  |
| English 4 .....                                   | 4 hours  |
| Sociology 3 .....                                 | 4 hours  |
| Physical Education (with or without credit) ..... | 4 hours  |
| Training School 1 .....                           | 4 hours  |
| Select two from the following:                    |          |
| Training School 7 .....                           |          |
| Training School 8 .....                           |          |
| Training School 9 .....                           | 6 hours  |
| Training School 11 .....                          | 3 hours  |
| Observation, Methods, Teaching .....              | 12 hours |
| First Aid .....                                   | 1 hour   |
| Psychology 4 .....                                | 4 hours  |
| Physical Education, 5, 7, 8 or 12 .....           | 2 hours  |
| Select 12 hours from the following:               |          |
| Geography 12, Geography Methods .....             | 2 hours  |
| Reading 9, Reading Methods .....                  | 2 hours  |
| Mathematics 8, Arithmetic Methods .....           | 2 hours  |
| History 13, History Methods .....                 | 2 hours  |
| Nature Study, Agriculture, or Zoology 5 .....     | 3 hours  |
| Civics, Civics Methods .....                      | 2 hours  |
| Music 2, Music Methods .....                      | 2 hours  |
| Public Speaking or Story Telling 13 .....         | 3 hours  |
| Electives .....                                   | 31 hours |

#### 7. County Schools Course.

### Details of the Course

|   |          |
|---|----------|
| Library Science 1 .....                                       | 1 hour   |
| Education 11 .....  | 4 hours  |
| Educational Psychology 2 .....                                | 4 hours  |
| Biology 2 .....   | 4 hours  |
| English 4 .....   | 4 hours  |
| Sociology 3 .....   | 4 hours  |
| Physical Education (with or without credit) .....             | 4 hours  |
| Education 25, Rural School Curriculum and the Community ..... | 3 hours  |
| Education 6, County School Methods .....                      | 3 hours  |
| Observation, Methods, Teaching .....                          | 5 hours  |
| Demonstration School, Observation, Teaching .....             | 5 hours  |
| Nature Study .....  | 3 hours  |
| The Teaching of Geography 12 .....                            | 2 hours  |
| The Teaching of Arithmetic 8 .....                            | 2 hours  |
| The Teaching of History 13 .....                              | 2 hours  |
| The Teaching of Reading 9 .....                               | 2 hours  |
| Agriculture .....   | 4 hours  |
| Public Hygiene 5 .....  | 4 hours  |
| Elementary Woodwork .....                                     | 4 hours  |
| Household Science and Art (Elective for men) .....            | 4 hours  |
| Electives .....   | 33 hours |

#### 8. Industrial Arts.

### Details of the Course

|                                |         |
|--------------------------------|---------|
| Library Science 1 .....        | 1 hour  |
| Education 11 .....             | 4 hours |
| Educational Psychology 2 ..... | 4 hours |
| Biology 2 .....                | 4 hours |
| English 4 .....                | 4 hours |
| Sociology 3 .....              | 4 hours |

|  |          |
|--|----------|
| Physical Education (with or without credit) .....  |          |
| Industrial Arts 8 .....  | 4 hours  |
| Industrial Arts 5 .....  | 4 hours  |
| Mechanical Drawing 10 .....  | 4 hours  |
| Woodworking 1 .....  | 4 hours  |
| Woodworking 2 .....  | 4 hours  |
| Architectural Drawing 12 .....   | 4 hours  |
| Industrial Arts 3 .....  | 4 hours  |
| Observation, Methods, Teaching .....   | 8 hours  |
| Care and Management 14 .....   | 3 hours  |
| Mechanical Drawing 6 .....   | 4 hours  |
| Woodturning 19 .....   | 3 hours  |
| Printing, Music Art, Commercial Art, Household Art, Household Science, Sociology, Biology, Physics, Mathematics.<br>(Five hours to be selected from this group)..... | 5 hours  |
| Electives .....  | 24 hours |

9. Commercial Arts. This is really two courses as the course may be planned with the major work in shorthand and typewriting or in accounting.

#### Details of the Course

|   |          |
|---|----------|
| Library Science 1 .....   | 1 hour   |
| Education 11 .....  | 4 hours  |
| Educational Psychology 2.....   | 4 hours  |
| Biology 2 .....   | 4 hours  |
| English 4 .....   | 4 hours  |
| Sociology 7 .....   | 3 hours  |
| Physical Education (with or without credit).....  |          |
| Shorthand and Typewriting or Accounting, Commercial Law,<br>and Business Arithmetic ..... | 24 hours |
| Business Correspondence .....   | 4 hours  |
| Commercial Geography .....  | 4 hours  |
| Observation, Methods, Teaching .....  | 10 hours |
| Commercial History .....  | 4 hours  |
| History of Commercial Teaching .....  | 3 hours  |
| Industrial Arts 5 .....   | 3 hours  |
| Electives .....   | 24 hours |

10. Household Science Course.

#### Details of the Course

|  |          |
|--|----------|
| Library Science 1 .....                          | 1 hour   |
| Education 11 .....                               | 4 hours  |
| Educational Psychology 2 .....                   | 4 hours  |
| Biology 2 .....                                  | 4 hours  |
| Sociology 3 .....                                | 4 hours  |
| English 4 .....                                  | 4 hours  |
| Physical Education (with or without credit)..... |          |
| Household Science 1 .....                        | 4 hours  |
| Household Science 3 .....                        | 4 hours  |
| Household Science 4 .....                        | 4 hours  |
| Household Science 9 .....                        | 4 hours  |
| Household Science 7 .....                        | 4 hours  |
| Household Arts 3 .....                           | 4 hours  |
| Chemistry 1 .....                                | 8 hours  |
| Observation, Methods, Teaching .....             | 8 hours  |
| Bacteriology .....                               | 4 hours  |
| Household Arts 7 .....                           | 3 hours  |
| Electives .....                                  | 24 hours |

11. Household Art Course.

#### Details of the Course

|                         |         |
|-------------------------|---------|
| Library Science 1 ..... | 1 hour  |
| Education 11 .....      | 4 hours |



|  |          |
|--|----------|
| Educational Psychology 2 .....                   | 4 hours  |
| Biology 2 .....                                  | 4 hours  |
| Sociology 3 .....                                | 4 hours  |
| English 4 .....                                  | 4 hours  |
| Physical Education (with or without credit)..... |          |
| Household Art 1 .....                            | 4 hours  |
| Household Art 2 .....                            | 4 hours  |
| Household Art 4 .....                            | 4 hours  |
| Household Art 6 .....                            | 4 hours  |
| Household Art 9 .....                            | 4 hours  |
| Household Art 5 .....                            | 4 hours  |
| Household Science 1 .....                        | 3 hours  |
| Household Science 2 .....                        | 4 hours  |
| Art 1 .....                                      | 3 hours  |
| Art 2 .....                                      | 4 hours  |
| Observation, Methods, Teaching .....             | 8 hours  |
| Electives .....                                  | 28 hours |

12. Music Course.

Details of the Course

|  |          |
|--|----------|
| Library Science 1 .....                              | 1 hour   |
| Education 11 .....                                   | 4 hours  |
| Educational Psychology 2 .....                       | 4 hours  |
| Biology 2 .....                                      | 4 hours  |
| English 4 .....                                      | 4 hours  |
| Sociology 3 .....                                    | 4 hours  |
| Physical Education (with or without Credit).....     |          |
| Music 1, Sight Reading .....                         | 4 hours  |
| Music 2, Methods .....                               | 5 hours  |
| Music 8a, 8b, 8c, Harmony .....                      | 9 hours  |
| Music 7, History, Ancient .....                      | 2 hours  |
| Music 10, History—Classical Age, Back to Wagner..... | 2 hours  |
| Music 17, History—Modern .....                       | 2 hours  |
| Observation, Methods, Teaching .....                 | 12 hours |
| Electives .....                                      | 35 hours |

Courses covering four years work, with a major in Music and leading to the degree of Bachelor of Music, are offered by the College Conservatory of Music. All students in the conservatory are required to take two years of voice and piano unless they have previously had the equivalent of the work offered.

Special courses in Public School Supervision, Voice, and Piano are offered by the Conservatory.

13. Physical Education Course.

Details of the Course

|   |         |
|---|---------|
| Library Science 1 .....                                   | 1 hour  |
| Education 11 .....  | 4 hours |
| Educational Psychology 2 .....                            | 4 hours |
| Biology 2 .....   | 4 hours |
| English 4 .....   | 4 hours |
| Sociology 1 .....   | 3 hours |
| Psychology 2 .....  | 4 hours |
| Observation, Methods, Teaching .....                      | 8 hours |
| Sociology 24 .....  | 4 hours |
| English 5 .....   | 3 hours |
| Hygiene 5 .....   | 3 hours |
| Physical Education 2, Anatomy 1 .....                     | 5 hours |
| Physical Education 1, Physiology .....                    | 5 hours |
| Hygiene 1, Personal Hygiene .....                         | 3 hours |
| First Aid .....   | 1 hour  |
| Physical Education 17, History of Physical Education..... | 2 hours |

|  |          |
|--|----------|
| Physical Education 16, Anthropometry .....           | 2 hours  |
| Physical Education 3, Light Gymnastics .....         | 1 hour   |
| Physical Education 5, Out-door games .....           | 1 hour   |
| Physical Education 4, Advanced Light Gymnastics..... | 1 hour   |
| Physical Education 6, Singing Games .....            | 2 hours  |
| Physical Education 7, Folk Dancing .....             | 2 hours  |
| Physical Education 21 .....                          | 1 hour   |
| Physical Education 22 (Elective for men).....        | 2 hours  |
| Electives .....                                      | 26 hours |

14. Agriculture.

Details of the Course

|  |          |
|--|----------|
| Physics .....                                    | 4 hours  |
| Library Science 1 .....                          | 1 hour   |
| Education 11 .....                               | 4 hours  |
| Educational Psychology 2 .....                   | 4 hours  |
| Biology 2 .....                                  | 4 hours  |
| English 4 .....                                  | 4 hours  |
| Sociology 3 .....                                | 4 hours  |
| Physical Education (with or without credit)..... |          |
| Observation, Methods, Teaching .....             | 10 hours |
| Chemistry 1 .....                                | 4 hours  |
| Plant Propagation .....                          | 4 hours  |
| School Gardening and Truck Crops .....           | 4 hours  |
| Small Grains .....                               | 4 hours  |
| Poultry .....                                    | 4 hours  |
| Farm Animals .....                               | 4 hours  |
| Dairy Breeds and Milk Production .....           | 4 hours  |
| Electives .....                                  | 33 hours |

Special Subjects are not required of regular grade or room teachers in our College. While I think we recognize the value of special subjects more completely than most institutions, still we are tied down, somewhat, as the rest of the Colleges of the land are. We can not get away from the idea there is a general panacea for all our educational ills. That after all, an educated school teacher is one who has floundered through this educational bog full of much material with which he had been not too intimately acquainted during his eight years of elementary and four years of high school training.

The work in the special curricula can not be adequate till the course is extended, at least four years. We will then have an opportunity for the planning of complete worth while courses along these lines.

The curricula of all kinds should be four years in length with an opportunity for graduate work at least one year more.

We must be super-human beings and our students all geniuses to be able to do in two years what it takes other schools four years to do only very moderately well.

Since the completion of the above section of this Survey the institution authorities have recognized the fallacy of such a course as a general course. In place of having a general course with a limited number of special courses we now have twenty-six special courses in the departments listed below as the central core of each and requiring various types of courses from other departments.

|                           |                         |
|---------------------------|-------------------------|
| Agriculture               | Intermediate Grades     |
| Biology                   | Industrial Arts         |
| Chemistry                 | Kindergarten            |
| Commercial Arts           | Latin and Mythology     |
| County Schools            | Literature and English  |
| Geology, Physiography and | Mathematics             |
| Geography                 | Modern Foreign Language |

Education  
 Grammar Grades  
 History and Political Science  
 Household Art  
 Household Science  
 Fine and Applied Arts  
 Educational Psychology

Music  
 Oral English  
 Physical Education and  
 Playground Supervision  
 Physics  
 Primary Grades  
 Social Sciences

Each of the courses differs somewhat from the other in subjects required by the department but each course contains the following subjects we are pleased to call the Professional Core:

**First Year**

Biology 2, Educational Biology (Bionomics)..... 3 hours  
 Education 8, Educational Values ..... 3 hours  
 Sociology 3, Educational Sociology ..... 3 hours

**Second Year**

Psychology 2a, Educational Psychology ..... 3 hours  
 Psychology 2b, Educational Psychology (cont) ..... 3 hours  
 Education 10, Elementary School Curriculum..... 3 hours  
 Political Science 30, Political Adjustment..... 3 hours

**Third Year**

Psychology 104, Psychology of the Elementary School Subjects, or  
 Psychology 105, Psychology of the High School Subjects..... 4 hours  
 Sociology 105, Social Maladjustment ..... 4 hours

**Fourth Year**

Education 111, Principles of Education ..... 4 hours  
 Education 116, The High School Curriculum ..... 4 hours  
 Psychology 108, Educational Tests and Measurements..... 3 hours



# QUESTIONNAIRE TO FACULTY REGARDING THE CURRICULA OF A TEACHERS COLLEGE

by *S. M. Hadden*

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The following questionnaire was sent out to all of the members of the College faculty who were in actual service at the time the questionnaire was sent out.

We received replies from quite a limited number compared to the entire group of the faculty concerned. Below is the questionnaire sent out.

## QUESTIONNAIRE TO FACULTY

### General Directions.

We assume that all the faculty would agree to the following general criteria for the selection of the material that should go into the curricula for a Teachers College:

1. The first principle to be observed by the framers of curricula for a Teachers College is that the **professional responsibilities of modern teachers should determine the general or core requirements** of all teachers.
2. The second principle to be observed is that the specific responsibilities of the type of position being prepared for should determine all other course requirements.

Therefore, any course in any curriculum should be abandoned if it can be shown that a more useful course could be offered in its place.

We ask you, therefore, to study each of the curricula carefully and read the Year Book's description of each course required in the curricula and give us your critical judgment of each curriculum. For example, study the core requirement (see principle 1 above) on Page 20; the general course (see principles 1 and 2 above) on Page 21; and so through the entire list of curricula—noting especially the list of courses in paragraph 2 on Page 20. We especially wish the full reaction of everybody to the curriculum in whose success he is most concerned, but we shall be grateful for everybody's criticism of all other curricula.

Replies to this questionnaire were received from quite a number of department heads; some passing it over as a thing of no particular value and for that reason to be shelved as soon as possible, but in general there were some who offered some general and particular suggestions that at least reflected the attitude of those who replied to the questionnaire.

In order that the material of this report may be interpreted by any one who takes the time to read this section, I am attaching at this time all of the materials required in the various curricula and the fundamental core subject of the group courses.

## GROUP COURSES

Every student entering the College and beginning a two-year course must select one of the following groups in which to do his work: 1. The General Course. 2. The Supervisors Course. 3. Kindergarten. 4. Primary Grades. 5. Intermediate and Grammar Grades. 6. County Schools. 7. Industrial Arts. 8. Fine and Applied Arts. 9. Commercial Arts. 10. Household Science. 11. Household Arts. 12. Music. 13. Physical Education. 14. Agriculture.

Those who have no special preference are to take the general course. Those who expect to take their electives in the departments not listed in these group courses, such as Education, Psychology, Biology, Physics, Chemistry, Geography, Mathematics, Sociology, History, Latin, English, Oral English, and Modern Languages are to enroll in the general course.

After taking the first two years in the general or in one of the special groups the student may go on and work toward a major either in a particular department or in the special group which he has elected. No notation of a major is made on the student's diploma until the completion of the third or fourth year in the College.

### COURSES REQUIRED IN EVERY GROUP

Each group contains a core of required subjects, the same for all. These subjects are:

|   |         |
|---|---------|
| Library Science 1 .....                           | 1 hour  |
| Education 11 .....                                | 4 hours |
| Educational Psychology 2 .....                    | 4 hours |
| Biology 2 .....                                   | 4 hours |
| English 4 .....                                   | 4 hours |
| Sociology 3 (or a selected Sociology Course)..... | 4 hours |
| Physical Education (with or without credit).....  | 4 hours |

Two-thirds of the number of quarters in residence.

These must be exercise courses, not theory alone.

The total number of quarter hours in this core is twenty-one. In addition to this core each of the group courses has its own requirements.

### THE GENERAL COURSE

A two-year course planned for those students who expect to become general grade teachers or who wish to begin specializing in some subject in which they expect to major in the third and fourth years of their College course. Students who expect to become high school teachers of some one of the academic subjects such as Modern Language, History, English, Mathematics, etc., should take their first two years in this group.

### DETAILS OF THE COURSE

|   |          |
|---|----------|
| Library Science 1 .....                                       | 1 hour   |
| Education 11 .....  | 4 hours  |
| Education Psychology 2.....                                   | 4 hours  |
| Biology 2 .....   | 4 hours  |
| English 4 .....   | 4 hours  |
| Sociology 3 .....   | 4 hours  |
| Physical Education (with or without credit).....              |          |
| Child Hygiene 1.....  | 2 hours  |
| Education (selected) .....                                    | 2 hours  |
| Observation, Methods and Teaching .....                       | 12 hours |
| The Teaching of Geography 12.....                             | 2 hours  |
| The Teaching of Arithmetic 8 .....                            | 2 hours  |
| The Teaching of History 13.....                               | 2 hours  |
| The Teaching of Reading 9.....                                | 2 hours  |
| General Science or Nature Study .....                         | 3 hours  |
| Electives (as much as 24 hours may be in one department)..... | 48 hours |

### THE SENIOR COLLEGE

Practically all the work of the Senior College for each of the courses listed here is elective. Only one prescription is made; namely, students who expect to become high school teachers are required to take a minimum of 10 hours of teaching in the Industrial High School. A student will not be recommended for a high school position until this requirement has been successfully met.

Majors—Every students at the beginning of the third academic year must select a major subject for his work. A notation of a major will be made on the student's diploma for the successful completion of 48

quarter-hours in the subject indicated as the major subject. But a student may take as much as 60 hours in the major subject. At least 48 hours of the major work must be done in the Senior College.

These general regulations apply to all the courses. Some variations, however, are made in certain of the group courses which follow.

### THE JUNIOR COLLEGE

The scope of the Junior College is the work of the first two years of the College proper. The student completing this course, having earned credit for ninety-six term hours, is granted a diploma, which is a life certificate authorizing him to teach in the public schools of Colorado.

### REQUIREMENTS FOR GRADUATION

A student must do full work in residence during at least three terms before being granted a certificate of graduation from the Junior College. Thus, at least forty-eight of his ninety-six required hours must represent resident work; the remaining forty-eight hours may be granted on advanced standing or on non-resident courses.

### SPECIALIZATION

No student may major in the Junior College. However, if he desires to begin specialization, he may take twenty-four hours of work—in some cases more—in one of a number of departments specified elsewhere, supplementing this amount with a nominal core of required subjects covering twenty-one hours, and with electives to complete the ninety-six required hours. If he prefers to delay specialization until his Senior College course, he must then follow the general course, details of which he will find elsewhere in this volume.

#### From Catalog—Year 1918-19.

General Requirements—The College requires of all students a group of courses which form a foundation for all teacher-training. These are called The Professional Core. In addition to these it requires another group which it regards as essential in the training of young people for the teaching profession. Each course, therefore, is made up of the following subjects, plus the departmental requirements listed separately in the sections of this Year Book devoted to each department.

### JUNIOR COLLEGE

#### First Year

- |   |       |
|---|-------|
| 1. The professional Core:   | Hours |
| Biol. 2.—Educational Biology (Bionomics) .....  | 4     |
| Ed. 8.—Educational Values .....   | 4     |
| Soc. 3.—Educational Sociology .....   | 4     |
| 2. Other Required Subjects:   |       |
| Eng. 4.—Speaking and Writing (Students may be excused by proving proficiency, .....                               | 4     |
| Hyg. 1.—Personal Hygiene (required only of women students) ....   | 1     |
| Phys. Ed.—Physical Exercise (required of all students at least two-thirds of the quarters they aer in residence). |       |
| 3. Subjects Required by the Department, and Elective Subjects .....   | 31    |

#### Second Year

- |  |       |
|--|-------|
| 1. The Professional Core:  | Hours |
| Psych. 2a.—Educational Psychology .....  | 4     |
| Psych. 2b.—Ed. Psychology (continued) .....  | 4     |
| Ed. 10.—The Elementary School Curriculum .....   | 4     |
| Pol. Sc. 30.—Political Adjustment .....  | 4     |
| 2. Other Required Subjects:  |       |
| Phys. Ed.—Physical Exercise Courses (at least two-thirds of the number of quarters in residence).<br>The following three courses are required of all students who expect to take the Junior College diploma: |       |
| Tr. Sch. 1.—Methods and Observation .....  | 4     |
| Teach. 1.—Practice Teaching in the Elementary School .....   | 4     |
| Teach. 2.—Practice Teaching in the Elementary School .....   | 4     |
| 3. Subjects Required by the Department, and Elective Subjects. 20 or 30  |       |

## SENIOR COLLEGE

### Third Year

|   | Hours |
|---|-------|
| 1. The Professional Core:<br>Psych. 104.—Psychology of the Elementary School Subjects, or<br>Psych. 105.—Psychology of the High School Subjects .....                         | 4     |
| 2. Other Required Subjects:<br>Phys. Ed.—Physical Exercise Courses (at least two-thirds of the<br>number of quarters in residence).   |       |
| 3. Courses Required by the Department and Elective Courses .....  | 40    |
| 4. In the Third or Fourth Year.<br>The following courses are required of those who expect to teach<br>in high schools:<br>H. S. 105.—Principles of High School Teaching ..... | 4     |
| H. S. 103.—Practice Teaching in the High School .....   | 4     |

### Fourth Year

|  | Hours |
|--|-------|
| 1. The Professional Core:<br>Ed. 111.—Principles of Education .....  | 4     |
| Ed. 116.—The High School Curriculum .....  | 4     |
| Psych. 108.—Educational Tests and Measurements .....   | 3     |
| (Ed. 116 may be omitted by students who expect to become High<br>School Teachers.)   |       |
| 2. Other Required Courses:<br>Phys. Ed.—Physical Exercise Courses (at least two-thirds of the<br>number of quarters in residence). |       |
| 3. Courses Required by the Department, and Elective Courses .....  | 37    |

### Junior College

|                                   |    |
|-----------------------------------|----|
| Summary:                          |    |
| The Professional Core .....       | 28 |
| Observation and Teaching .....    | 12 |
| English and Hygiene .....         | 5  |
| Major Subject and Electives ..... | 51 |

### Senior College

|                                   |    |
|-----------------------------------|----|
| The Professional Core .....       | 19 |
| Observation and Teaching .....    | 8  |
| Major Subject and Electives ..... | 69 |

Total .....192

We will not list the special courses offered in other departments. The *core* is the same in every case, and the required departmental and inter-departmental courses are made up in some way unknown to the committee.

It would be of interest to any one who would care to note the gradual increase of required materials in the professional core, and other required subjects.

There is a marked change in the required courses for all students during this two years. Education II, Educational Psychology, has been discontinued. This was a four hour course.

Education 8, Educational values, a four-hour course, and Education 10, The Elementary School Curriculum, were placed in the Education Department. Psychology 2, Educational Psychology, has been extended to an eight hour course.

Political Science 30, Political Adjustment, was required as a war course, and is also an additional requirement. A four-hour course.

Hygiene 1, Personal Hygiene, was required of all women.

The required core subjects have been increased thirteen hours or thirteen-sixteenths of an entire quarter's work.

The marked change in the curriculum of the two years grew out of the work of a new committee on the course of study appointed during the year nineteen sixteen and seventeen. The committee was comprised of teachers from the departments of Education, Psychology, History and Political Science, English, the Training School, and the Geography Department.



It is interesting to note that scientific and vocational fields have no place on such a committee. It may be entirely an oversight or it may again be the functioning of that formal attitude of many educational administrations toward educationally new lines of thought or doing.

The following replies from members of the faculty throw rather interesting light on the making of curricula in a State Teachers College. Names are eliminated, each being given a number.

1.—“I note that the time limit set for answering this questionnaire was February 7th. My reply is, therefore, somewhat belated.

“Since my work is so largely administrative, I am willing to abide by the judgment of that group of experts in our faculty who are devoting so much time and energy to the organization and correlation of the various courses offered by Teachers College.

“I feel sure that their judgment in matters of this kind is better than mine.”

2.—“It is more than likely that each one of us would favor the elimination of all courses but his own. This questionnaire is of no value as it stands. I should favor the prevention of duplication of courses and not allowing any student to take but one course at a time in those subjects that do not require outside study: Music, Typewriting, Manual Drawing, Domestic Science, etc. I can not say that there are any courses that should be dropped. No one is in the position to say this unless he has taught this course and seen no benefit derived from it.”

3.—“If the Household Science Course as it stands is the foundation for further study in this work eventually ending in an A. B. degree, it is very superficial.

“Or, even granting that its only purpose is to prepare teachers, in a minimum length of time, to teach Domestic Science, it is too narrow.

“I would suggest the following changes—

- a. More Chemistry required.
- b. A thorough course in Physiology.
- c. A course in Psychology more closely related to the teaching of this particular subject.
- d. More emphasis upon Methods in teaching than it is possible to give as the work is arranged now.”

4.—“I believe that there should be more coordination between Biology, Sociology, History and Geography. I believe courses should be given in these departments to the end of reinforcing work in other departments of this group. I find with the elective system in full survey that it is often impossible to give the pupil just what he ought to have. Let me illustrate. All our students who teach general grade work ought to have an elementary geologic background. Yet several times when geology has been offered too few pupils have appeared to justify giving the course.”

5.—“As to the core subjects required in all courses, I think the arrangement is admirable, with one exception. It seems to me that English 4, Functional English, should be required for more than one quarter, or some similar work in English should be provided during another quarter, coming five hours, instead of four hours, a week.

“The general course, on page 20 of the catalogue, has two different ends in view; first, to prepare general grade teachers; second, to train high school teachers or give specialized training in some definite line of work. The course is well suited to the first purpose, but not adequate for the second.

“I should advise an additional four year course for those preparing to specialize, or intending to go into high school work. This course

would offer instruction in the psychology of adolescence, the psychology of high school subjects, high school administration, secondary school problems, etc.

"If this plan were for any reason, not feasible, I should suggest a division in the general course—(A). As it is in the catalogue, for grade teachers; (B) for those intending to take a four years course preparatory to specializing or high school teaching. This section of the general course might require the first three subjects on page 21 of the catalogue (Child Hygiene 1, Education, selected—much more than two hours—Observation, Methods and Teaching), also general Science or Nature Study, but not the Teaching of Geology, Arithmetic, History and Reading, as these would seem unnecessary for those intending to specialize in the third and fourth years. Instead of taking these four subjects students might spend more time on general subjects (electives) or on their specialty during the first two years, and later have practice teaching and special methods on the teaching of their chosen subjects."

6.—"a. There should be a course in Nature Study required for the Kindergarten specials. The only courses given now would amount to 8 hours. There should be a more general course for three or four hours. I liked the course suggested by the committee last Spring.

"b. Physical Education 7, Folk Dancing, should not be required for credits in this course.

"c. The weakest spot in the Kindergarten course is the lack of teaching in the Primary. This recent change makes our Kindergarten training fall behind the courses given in other places."

7.—"a. Training School 37, 'The Relation of the Kindergarten and Primary Grades,' should be required of the specials in primary work rather than Tr. School 33, 'Plays and Games for Kindergarten and Primary,' because the first course will give them a clearer idea of all of the work of the kindergarten and its relation to primary grade work.

"b. There should be the same general course in Nature Study for this course.

"c. There should be only one course in Story-telling required, the second should be elective."

8.—"a. Core requirements—Satisfactory.

"b. Requirements, other than the core, for the general course.

"With twelve hours given to Observation, Methods, and Teaching, an additional Education course of two hours work is needed in the Teaching of Geography, and each of the other similar courses.

"If these last mentioned courses are really methods courses and do not overlap other methods courses they are acceptable but there is a grave danger that they will either do that or else lapse into mere reviews of subject matter. The latter case would be as objectionable as the first.

"Students report a serious overlapping of material in certain courses.

"In the general course no account is taken of Primary Construction, Music, Art, Oral English.

"The course for primary teachers requires Music and Art, and for the intermediate and grammar division the same condition prevails.

"These courses were planned by experts in each field. The special subjects just mentioned are regarded of such importance that they are not left for electives.

"Here is a strange variance with the general curriculum. If one teacher is trained for general grade work, and two others respectively for primary and upper grade work, is that just reason for reversing the importance of subjects, in the first case? It is argued that the general teacher will be in rural schools. Then they will have no supervisors of Music or Art to guide them as has the city teachers.

"In the Country Schools course, Music and Art are not even so much as recommended for electives."

9.—"In reply to your last request after the study of the curricula, I would submit the following report.

"The general core of required subjects which are the same in each course seem to me very satisfactory. I think they are well chosen. In regard to the general course I still can not see why all the rest of the faculty should be penalized because they did not happen to be chosen as members of the course of study committee. I see no more reason for demanding that the general course should include for instance the teaching of reading than many others. Every student has had reading in some form no matter what kind of school he or she may have been in. To me it is the same with History, Arithmetic, and Geography. If they have not imbibed enough of the spirit of the subject in that time, I can not see how it will be possible for them to gain it in twenty-four hours, which is the limit required. On the other hand, however, many of our students that are graduated and accept positions have not had the slightest knowledge in method of presenting or studying public school music. In every community or school of any standing whatsoever at the present time, it is demanded that the teachers be able to teach music. The demand is coming in constantly and is found in every teacher's agency application blank. Every rural school is asking for teachers competent to teach the music in that school district.

"It seems to me, gentlemen, it is unfair to discriminate against a subject for which there is such universal demand and including the other subjects that are included. I do not see why the teaching of writing is not as important as geography; why the teaching of spelling is not as important as history, and for these reasons I protest against the general course which seems to me was decidedly biased, and while it may seem an unjust thing to say, I can not help but feel that the only courses offered by members of the committee are for their particular friends; that there is a little element of selfishness that has crept into the deliberations of the general course of study. This is no new thought for me, as you know I expressed myself clearly and concisely at the faculty meeting last year, but I wish to let you know that I have not changed my mind since that meeting.

"In regard to the other courses prepared by special departments I do not feel that it is my prerogative to dictate courses prepared by the head of the departments. In my own course I would add a consultation course for all majors to be held every term and required for all those looking towards a major in music. I would add to the wording of the catalog where it says that all students in the conservatory are required to take two years of voice and piano unless they previously have had an equivalent to the work offered, the statement, that all students in the public school course should have the same requirement.

"In the primary major I can not quite see why music is eliminated when Art 1 and Blackboard Drawing are included. I shall be glad to be enlightened as to why this policy is adopted, as every primary teacher is certainly demanded to be able to teach music as much if not more than art.

"From what I gather from the reports of students, the Educational Psychology, for which so many departments asked, is being offered, is the same course identically as the one so many of us found fault with the last year, i. e., the study of the eye and ear and defective children. The thing I would like my students to have is general basis and underlying principles of psychology and not a clinical course, which seems to be the only course offered in reality by the department.

"If I have been too plain spoken, it is because I have written what I think. I feel that the questionnaire is of no value if things are handled too much with kid gloves. So I have called a spade a spade, with malice toward none. My report will have this virtue at least, that it is very frank and expresses my honest opinion.

"If I can give any further information please call upon me, as I am at your service."

10.—"The two principles mentioned in the questionnaire may be excellent, but without other principles they are very inadequate. I feel very confident that at least two others should be added. They are the following:

"(a) The core requirement must be sufficient in amount to be of practical value to the students. Our school has given some attention to this matter but has assumed that a single course in a professional subject was sufficient to give the student enough knowledge of it to enable him to use it in his school work. With all the background of high school work and home life 43 hours are deemed necessary to give the student a working knowledge of Household Science. If this be true how shall a student with no background in training or experience for psychology be able to master enough of it to be of any teaching value in a single term?

"(b) The school must limit the number registering for a specific course to the number who are likely to secure positions for which the course is a preparation. The bureau of recommendations should be able to tell us how many students who have specialized in Household Science, for example, succeeded in securing positions in this field. Let the bureau furnish us with this information in order that we may see to what extent we are preparing the students for the positions which they fill.

#### Core Requirements

"Child Hygiene.—Until the present year this course belonged to the core requirements. From this core it was excluded against the advice of the course of study committee and without consultation with the department offering the course. It should belong to this core for the following reasons:

"(a) The children in our schools from the kindergarten up to and through the high school are in the greatest need of health improvement and preservation. To deny this is to confess ignorance of the health conditions of our school children. That the majority of our school children require hygienic care is shown by the results of the medical inspection and the examination of recruits for the war. I stand prepared to show this need to any doubting Thomases by making examinations in their presence of the children of the Training School.

"(b) The maintenance and improvement of the child's health is a recognized school aim because health is one of the most important assets in filling successfully a position in life and in making normal school progress. The retarding effects which ill health and defects have upon the child's mental development and school progress have long ago been recognized by our best educators.

"(c) The task of giving the child the necessary hygienic care falls in our state almost altogether upon the teacher, who does not approximate adequate preparation for it.

"(d) A very large percentage of the students in our school realize the value of a course in child hygiene and are themselves in need of it.

"(e) The laws of our state require certain physical examinations of the children, which the teachers are not prepared to make.

"In order to obtain the best results in all kinds of instruction it is necessary for the teacher to understand the significance of ill health and defects of various kinds; to know how to prevent ill health and defects; and to know how to proceed to secure amelioration or cure. When a child does not succeed in his school work, the teacher's method is to give him more and still more practice, when what she should be able to do is to find the cause and secure its removal if possible. The child who can get along in our schools without a teacher succeeds and the one who needs a teacher fails because the teacher has not been adequately trained to deal with him.

"Educational Psychology.—This course should be a core requirement because it treats of problems which are involved in all kinds of instruction.

"(a) It discusses the child's native equipment. To operate successfully instruction must always take this equipment into consideration, for all learning is only a modification of this equipment in the last analysis. Because teachers know very little about this equipment there is enormous waste in education. Without knowing the child's capacities, tendencies, and instincts and the extent to which these have already been modified by practice we make it impossible for the teacher to utilize the first principle of learning; i. e., to proceed from the known to the unknown.

"(b) It treats of the laws of learning for all kinds of responses such as feeling, action, knowledge and attitude.

"(c) It emphasizes the necessity of recognizing individual differences in all kinds of capacities, tendencies and responses.

"(d) It discusses the problem of mental fatigue and what recognition must be given to mental fatigue in learning, health and the arrangement of the daily program.

"General Psychology.—The purpose of this course is to analyze, describe and explain mental processes and concepts. Because it is the business of education to *improve* the mental processes for school-room tasks, the course in general psychology can have only indirect value for the prospective teacher by preparing him for the courses in Educational Psychology. General psychology should therefore be taught in connection with Educational Psychology in which a very small part of it is involved. This would compel the teacher to select the parts of general psychology which are significant for the teacher. It would also enable the student to see the necessity of understanding certain parts of general psychology. The best plan would be to have two required courses in Educational Psychology so as to make it possible to cover the field of Educational Psychology and to teach in connection with them the necessary parts of general psychology. Because general psychology does not teach the prospective teacher how to improve the efficiency of the child's mental processes for doing school room tasks it should not be a core requirement.

"English 4.—It is the function of this course 'to guide the student in the correct use of English in speaking and writing.' I am unable to see why this should be a core requirement. The children have been guided in the correct use of English in speaking and writing from the cradle up to and through the high school, before entering our school. If all of this instruction and guidance has been without avail, one term more in our school can have little additional value. To assume that it can, shows ignorance of the nature of the chain of automatic acts involved in oral and written expression. I am, moreover, of the opinion that the English of most or practically all of our students is not so bad as to be inadequate for ordinary schoolroom work. The students, I am

convinced, show far greater deficiencies in other subjects equally vital to their work in the schoolroom.

"Biology 2.—I believe the function of this course is to help interpret the problems of Psychology and Sociology. Until provision is made for more required courses in Psychology and Sociology, I believe that this requirement should be limited to two hours. I am unable to see that the biological aspects of even eugenics and heredity have anything but indirect value for education.

#### Other Required Courses in Psychology

"Psychology 4 (Psychology of the Elementary School Subjects). This course is required of those who specialize in the intermediate and grammar grades. This is not the best place for this course. While it has some value for the teachers of all of the elementary grades, it is of greatest value to the primary grade teachers and the intermediate grade teachers, for it made its greatest contribution to the methods involved in lower grade work. In placing this required course, the advice of the course of study committee was not followed nor was the department offering the course consulted.

"Psychology 3 (Child Development).—This course is not a required course for any of the students in spite of the fact that it is of the greatest practical value to all elementary school teachers and especially to the teachers of the primary grades. It points out what treatment the child requires and what subject matter is adapted to him in the various states of his development.

"For the good of our school I hope that I am very much in error in the views which I have expressed in this questionnaire reply. I should very much enjoy to be shown the falsity of my views."

11.—"In compliance with your last questionnaire I submit the following, with no ill-feeling toward any one or any course now being offered. What I may offer will be submitted from two angles. Having taken work as a student in the institution, and having taught for nearly four years, these two angles combined will be the points from which I draw my conclusions; and let me further state that what I may attempt to say will be as I find my own department and my own work affected.

"First taking up the courses required in every group, would say that I consider two courses in that group of little, if any, use to one fitting himself as a Manual Training teacher. These courses are Educational Psychology 2 and Biology 2.

"From the standpoint of the student who is fitting himself as a Manual Training teacher he can sit in these classes from the beginning to the end of a term and never have it pointed out to him how to apply either of these courses in his chosen line. He is continually cited to problems purely academic and never as much as cited to the method of even harnessing the horse prior to hitching it to his own chosen cart. I have endeavored to watch students who have been working in my department to see if they show any evidence of having gained anything by taking these courses, and so far I have failed to find any who even show any symptoms of having been exposed.

"From the standpoint of a Manual Training teacher I find that the things that the average Manual Training teacher needs to know are what might be termed two phase: i. e., he not only needs to know **how** they should be done but needs to know **how** to do them. This, in my opinion, requires more time than is ordinarily considered necessary, and for this reason I feel justified in saying that this type of teacher can become a more efficient teacher by putting the time spent in these subjects on work more directly connected with the work he intends to do. As far as general information gained in these classes is concerned,

I have nothing to say; but as to what will bring the best results, I feel that more time spent along the line the student intends to pursue would be to his advantage. So long as these courses are taught and never made applicable to all lines of teaching, they will continue to be of little, if any, benefit to the average student.

"In substituting courses for the ones mentioned, I would advise a course in the study of the history and method of preparation or manufacture of all equipment and materials used in the Manual Training department. This I consider a broad enough subject to give the student a polishing touch that will ever be of service to him. Another course I could suggest would be a clean common sense course in plain mathematics; whether or not this is the proper place to bring up the subject I am about to break loose on, I am unable to say, but I beg your indulgence and consideration at any length.

"I feel confident that you will agree with me that a student entering this or any other educational institution to prepare for any special line of teaching should lend every effort to make himself as proficient in that line as possible, and that nothing should be permitted to stand in the way of his accomplishing these ends.

"We are right now experiencing a spurt in athletic activity. It is this subject that I wish to present and I shall endeavor to show you its effect on some who at the present time are working toward a major in Manual Training.

"On careful investigation I find that the student who is either classed as a football or basketball man takes the attitude that the whole College is under obligation to him, by virtue of the fact that timber of this special class is somewhat at a premium, and that by reason of this scarcity he stands at liberty to shirk to his heart's desire.

"I find it to be a fact that after some of the recent games students have deliberately stayed out of class, claiming that they were disqualified to do their other work. Several instances have been found where students missed from one to two classes prior to a game, and as many or more after a game.

"When athletics, or any other line, becomes a hindrance to the student's preparation for the branch he intends to teach, I feel I am not creeping outside the bounds of reason in calling your attention to what I consider a vital problem facing our College at the present time.

"No up-to-date teacher to-day stands more in need of a thorough knowledge of plain every-day mathematics than does the Manual Training teacher. The average student entering the College to prepare himself as a Manual Training teacher considers that he possesses sufficient knowledge of mathematics to carry him through. The fact is, he has had too much theoretical but not enough application. It is no uncommon thing to find students in our Senior College who cannot tell how to find one-half of three-fourths. I have found that it is possible to accomplish more with a thorough knowledge of common arithmetic than with a smattering of all branches of higher mathematics smeared over in a promiscuous manner."

12.—"I am submitting below a few statements in regard to questionnaire number 3.

"It seems to me that there is a duplication of effort on some of the so called methods courses. This statement is true of such subjects as we usually term fundamentals, but for the courses that are highly specialized a Methods Course is necessary, and should be given by one who is a specialist in that particular line.

"From the students has come the complaint that some of the methods courses are not as much a study of the methods of presenting the sub-

ject as it is a 're-hashing' of the content of the subject. If this condition exists to any marked degree, there should be a new terminology for these courses.

"There is a question in my mind in regard to Education 11. It does not seem to be the best course in Education for all the people—I am not saying that we should not have courses in Education—but that there are other courses in Education which would be worth more to our student body as a whole.

"It seems to me that there is a more satisfactory way of teaching our students how to use the Library. Some institutions such as ours have a syllabus printed giving directions, instructions, etc. in regard to the use of the Library and it seems to work splendidly.

"If the core requirements could be arranged and certain hours, one in the forenoon and one in the afternoon, be set aside for the entire school year for these required courses the students would know what hours to look for these courses and also the teachers would know at what hours to schedule major courses in their particular field, so as to avoid conflict. This plan would also guarantee the plan of having the students take only two requireds."

13.—"In the discussion of a subject such as this there is a tendency for one to judge the various curricula in a prejudiced way and see them only in the light of the department in which he is most interested. If this criticism be so warped I suspect it will be only one of the many, thus biased.

"In considering courses of study or curricula in any critical way, one must take into consideration the fact that progress in this line in teachers colleges is very recent, and that even though after a year's trial of our present curricula, many criticisms might be registered, these should be tempered with the thought that after all, perhaps great progress over the old scheme has been made.

"In the consideration of such a subject as the curriculum, the purpose of the institution should be considered. Our main purpose, and certainly the only purpose we have for existing, is that of training teachers. These teachers must be taught:

- a. A knowledge of child life, physical, mental, moral.
- b. A realization of aims and values in education.
- c. An idea of existing conditions in the public schools today.
  - 1—This, of course, would include, health, lighting, curricula, backward children, etc. etc.
- d. A progressive attitude toward the work of educating children with regard to:
  - 1—The social needs, present and future.
  - 2—The curriculum, sanitation, school hygiene, school discipline, etc.

"Certainly, then, courses in Psychology and Education should have an important place in any curriculum for the training of teachers.

"The administrators of an institution should be very certain that the required subjects are valuable as a preparation for the work the teacher expects to do before such subjects are required. Furthermore, they should see that a knowledge of educational aims, educational values, the curriculum as it exists today and the needed changes in order to meet the social needs of life, the best methods of maintaining the health of the child, together with a definite realization of his responsibilities and opportunities as a teacher be given every graduate of the institution.



"It seems to me that not all of the 'core' subjects are valuable enough to require that all students of the institution take them. In consideration of the 'core' I make the following suggestions:

"**Library Science** should not be required, but elective. The subject is taught too technically for our students. They do not care to go out and catalogue a library; they want something that will be beneficial to them while in school. So I should not object to requiring the subject, if it consisted of practical problems which would be worked out in the library and not in some class-room and further if this subject be required the first term the individual is enrolled in the college.

"**Education II** should be required of all college students, I believe. It seems to me that the course is really practical and very much worth while, but is somewhat more advanced than the average Junior College student is capable of comprehending unless he has had experience teaching or has had another course in education. Consequently, either this course, Principles of Education, should not remain the required for the Junior College, or there should be required previously either experience in teaching or some other course in Education. I would like to suggest here that institutions which train teachers, above all others, should require courses in Education. And yet, this institution requires fewer courses in Education than any institution or State Department with which I am familiar requires of teachers. In fact graduates of Denver University and of Colorado College are required by state regulation to complete at least 20 semester hours in certain specific pedagogical subjects, if teachers certificates are granted. For the life of me, I can't see why more professional work is not required in this institution, except that a majority of the faculty do not think such should be the case. I cannot see why the members of the faculty are opposed, except that they are not at all informed in regard to the courses offered.

"**English 4.** I question the advisability of requiring this course in English. The use of good English cannot be taught in one term. Consequently some students should be required to take a course in English every term they are enrolled in the institution, perhaps, whereas others should undoubtedly be excused from any English, and English 4 then should not be a core subject.

"**Phys. Ed.** I consider it next to a calamity that the requirement was made that students should take the subject for credit, particularly, in the middle of a school year. I would not object in the least to have some form of physical education required at least twice a week, every term the student is in attendance. I do not think credit should be required, however. I'm almost inclined to say that it should not be allowed credit as one of the sixteen hours, except in the case of a physical education major.

"In the committee I was somewhat opposed to Biology 2 as one of the required and I am still inclined to be opposed. In some of the courses, nature study or bird study should be required, but I do not believe that Biology should be required of all teachers. I know I haven't quite good enough idea of the contents and yet I know enough to conclude that although it is interesting and helpful, it should not be required of all.

"I have no objections to Sociology 3 as one of the 'core,' although it does seem that there might better be another Sociology substituted in some courses.

"Let me suggest further, that one can get little conception of Psychology or Education in one term. Consequently in these professional subjects more than merely a four-hour course should be required. This applies as well to such subjects as Math. 8, Reading 9, Geog. 12, Hist. 13.

No student can get what he should from a two-hour course, for instance, in the teaching of History.

"One might discuss the individual courses at almost any length, but I shall give merely a few of the many suggestions which might be made. In all of the courses it might be preferable to indicate what subjects are to be taken the various years, rather than to allow indiscriminate selection. There should be some order which would be best it seems to me. For instance Biol. 2, Soc. 3, Psych. 2, Ed. 11, should, according to my opinion, be given in the order they appear above. Then History 13, and Geography 12, should be given the same quarter at different hours so that a student could take both courses the same quarter. In fact I would advise that the student who takes both, take them the same quarter.

**"General Course.** I would prefer, if, the courses in the teaching of the various subjects be required as now, that the courses be extended to at least four hours, and that the student be allowed to select, say three of the several subjects so presented. For instance, I think that the Teaching of English, The Teaching of Manual Training, The Teaching of Music, etc, should be placed on the same basis as Reading 9, Math. 8, Geo. 12, and Hist. 13, and that no student taking the general course be required to take all of these.

"If the student be required to take an Education in the general course, and has had no experience it certainly should be required before Ed. 11, as I have suggested before, if Ed. 11, remains the required course in Education, there should be another course required of all who have not had previous experience in teaching.

"If I had my way, I would require in the General Course two courses in Education, two courses in Psychology, Sociology 3, Physical Education (without credit), English (either until the individual showed improvement or none), General Science or Nature Study, and three courses from the 'Teaching' subjects named above.

**"Kindergarten Course.** I would not allow credit for physical education. Certainly there is no justification for Biology 2 in this course.

**"Primary Course.** Some suggestions hold for this that were given above in regard to the Kindergarten course. In fact I see no real reason why, since most of our Kindergarten majors have to accept primary positions, there should not be a joint Kindergarten-primary course. Surely no reason why Music should not be required here.

**"Intermediate and Grammar Grades.** Why not require story telling here as well as in the Primary grades? Yes, I know teachers usually have to tell stories to the primary children, but why shouldn't the same requirements be made of the other grade teachers? It seems to me it will take more training to tell stories to upper grade children and 'get away' with it than in the primary grades.

**"County Schools Course.** Agriculture may as well be omitted unless a different type than that usually taught is given. It is impossible to make a farmer out of a girl who has never seen a farm, in one quarter, four days a week. Better eliminate Public Hygiene, Household Science and Art, and Biology 2, and give more Agriculture if any is required.

**"Industrial Arts Course.** I see little reason why the student should be required to select the five hours from the group—Printing, Music, Art, Commercial Art, Household Science, Sociology, Biology, Physics, and Mathematics. I see some reason why a student in this department should have some Mathematics and perhaps Physics, or even Printing or Sociology, but why these other subjects more than still a dozen others such as

Psychology and Education? There surely is no reason for such a condition existing.

**"Music Course.** The criticism registered against the Industrial Arts Course is appropriate here. Why four hours from Modern Languages, Mythology or Industrial Arts any more than from Sociology, Psychology or Education?

**"Fine and Applied Arts.** Again in the Art course, why place among the requirements for the individual a selection from Industrial Arts, Commercial Arts or Printing? Are these closely related to Art? Would a course in Educational values or in the Psychology of School Subjects be of as much worth to the prospective teacher of art?

**"Physical Education.** There are a number of the courses in this curriculum which have become practically obsolete. Since a doctor of medicine is not physical director, consequently these same courses should be stricken from the course and the catalogue.

#### Summary of Recommendations

"1. Eliminate Library Science 1, Biol. 2, English 4, and Physical Education from the 'core' list.

(a) If English is required at all, any amount up to two years of it should be required.

"2. If Education 11 is retained as the Junior College requirement, either another course in Education or previous experience in teaching should be required.

"3. It seems to me that more than the one course in Psychology should be required.

"4. Surely more professional work than is at present required should be demanded, when to be granted a teaching certificate, the student at the denominational colleges is required to have 20 semester hours or 40 credit-hours of professional work.

"5. In the general course, the teaching of English, of Music, of Art, etc., should be given the same standing as Math. 8, Hist. 13.

"6. Courses in these teaching subjects should be lengthened and fewer of the courses required.

"7. In each curriculum, the order of the subjects should be indicated; there should be a sequence.

"8. If, in the general course, the Education aside from Ed 11 be required, the student should be required to take it before Ed. 11, if she has had no previous experience in teaching.

"9. The Kindergarten and Primary courses should be placed together as to requirements, since so many of our Kindergarten majors are required to accept primary positions.

"(a) Surely Music should be a requirement in this course.

"10. Story telling as a requirement should not stop with the primary grades.

"11. Better eliminate many two-, or three-, or even four-hour courses in the County School course and have more continuous work in one field.

"12. Many 'hit and miss' requirements are given. I mean that there are presented lists of some six or a dozen subjects from which the student is expected to select a four-hour course. Perhaps many of these have no value as a preparation for the work in which they are required. Perhaps, too, there are a dozen other courses in the institution which would be of as much value as those from which the selection is to be made.

"13. The various courses surely should be worked out on the basis of four years for a major. It seems to me that our present courses allow too much specialization still. In the subjects it seems necessary to require of all teachers, more work should be required in each. *Furthermore, for the two-year course the student should be limited in the number of units taken in one field.* I know the catalogue says, 'No student may major in the Junior College', but is there any restriction on the student other than the required? Why not require the student to take one-fourth of the elective studies in professional work?

"14. The administration of the various courses should be given into the hands of a committee, preferably the Committee on Course of Study. This committee had much to do in formulation of the different curricula, but has nothing whatever to say in their administration. For instance, if students had 'kicks' to register, this committee should listen and be willing to excuse any student from any course for which he could give sufficient reason for being excused. *Students need a great deal of advice in selecting a curriculum. Furthermore, many students get a great deal of advice, but is it intelligent advice?*

"As a member of the Committee on Course of Study last year I was in accord with the recommendation that there should not be any subjects required in every course. I think that there are special subjects in courses that are more essential than those mentioned in the list of general requirements. As a member of the committee that is still active, I do not care to discuss details of courses outlined.

"I believe that the students should be brought more in contact with courses that deal directly with citizenship, the one ideal above others that is advocated in education at present. The State Superintendent wrote me last year that the teaching of civics in the schools of Colorado was poorer in quality than that of any other subject. County Superintendents largely state the same fact.

"I am convinced that this is one phase of education that is to be reorganized as a result of the war experience.

"If the professional responsibilities of modern teachers should determine the 'core' requirements for their training, then, of the core requirements set on page 20 of the catalog, Education 11, Education Psychology 2, and Sociology 3, alone have any justification.

"Library Science 1 is offered with the expressed purpose of 'teaching the student to use the library efficiently in his college career.' It should be clear that this course has nothing to do with one's professional responsibilities and should not be a required course. There are other reasons for *not* requiring this subject. One is that all of the students do not need it. Some have gone through the college high school and have been using the library for three years. Others have come from schools where they have had library experience. The greatest stimulus to learning is a *felt need* the student should, without doubt, learn to use the library as the need arises.

"I do not see that Biology 2 has anything to do toward enabling a teacher to meet his professional responsibilities except as it may be a basis for subjects more definitely planned to meet the teacher's professional needs. In such event it would seem better pedagogy to incorporate the fundamental ideas with applied subjects.

"English 4 is no more entitled to a place in the core subjects than a hundred other subjects that make no claim to a place. It seems to have been placed here to meet deficiencies of instruction in the elementary and high schools rather than to give power to meet professional obligations.

"Physical training clearly has no place in the core on the grounds of enabling one to meet his professional responsibilities. The depart-

ment has no course organized that it can point to and say, "This ought to be required of every student." Certainly physical training should *not* be required of all students without a very competent woman physician employed to safeguard the health of the women students. The requirements now made by this department should be severely criticised.

"If there should be a core of required subjects for all, it should be made up of those subjects not required for College entrance, fundamental to the pursuit of professional studies. If the College entrance requirements are not stiff enough along the line of the common branches, English included, to enable students to pursue professional studies along these lines, then it is the duty of the College either to tighten up on entrance requirements or to offer an opportunity for students to review the common branches. It is worse than a waste of time to give professional courses in the elementary subjects without this thorough fundamental knowledge.

"If Biology 2 is to be regarded as fundamental to the understanding of Psychology and Sociology, then it ought to be given to students in their first term, and no other required subjects should be allowed before the second term. If Educational Psychology 2 is fundamental to the understanding of methods in the elementary school subjects, then it should be given to the students before the methods courses are allowed. For instance, a student who applies for Methods in Arithmetic should be required to show that he had already had sufficient drill in the subject matter of Arithmetic to understand it thoroughly; that he has had the preliminary instruction necessary in Biology, Psychology, and Sociology. Any other procedure is a confession that the aforesaid subjects are not fundamental. I should have included Education 11 as a prerequisite for the method studies.

"I feel that in addition to the courses I have named as suitable to be required of all students there should be another course not now given by the College, but of the utmost importance to the public school pupils in order that their welfare may be safeguarded. I would call it a course in *hygiene*, and it would include the treatment of such topics as the following: personal hygiene; the laws of health; care of the eyes, teeth, ears, throat, skin; heating, ventilating, and lighting school rooms; sanitary conditions about the school house; corrective measures for physical defects; first aid work; contagious diseases; importance of observing and enforcing quarantine regulations; fire drills; and others.

"My criticisms on the general course as found on page 21 of the catalogue are for the first part similar to the criticisms of the 'core'. What I have said applies with full force to the general course. Even if it were proper to require these things of any group of students nothing is said concerning what subjects should be prerequisite to others. If any subject is fundamental to any other it should precede it.

"This general course is planned for those who want to become general grade teachers and also for those as well who want to become high school teachers of some one of the academic subjects! ! ! Suppose for example that one wishes to prepare to be a high school teacher of modern languages. What particular value will any of these required subjects have for him; that is, outside of the core subjects I have admitted above? The question is just as pertinent for any other high school subject. This College certainly stands for the functional and genetic view of education and against the disciplinary view. Yet here is a striking example of the *dualism between theory and practice*.

"I do not believe that the method courses of two hours are adequate to meet the needs of the students who want to become general grade teachers. I think also that there should be added to the list the re-

maining common branches that are generally taught in the public schools; oral and written composition, writing, music, art, hygiene. If you are going to train a person for a job give him the things that he will need to carry on his work. In addition to these character building, training for citizenship, manners and morals, pupil self-government, and community cooperation work. Schools under the guidance of teachers trained as I have suggested would have a wonderful influence in uplifting the community in which they are conducted. Teachers trained as suggested on page 21 of the catalogue would do unusual work in spite of their training rather than because of it.

"I do not care to take the time to criticize other courses except the Commercial. This course is grossly inadequate to meet the needs that it is organized to meet. In the first place the commercial teaching which we are supposed to be training for is to be done in high schools. Most good high schools require all their teachers to hold a degree equivalent to four years of college work on a foundation of four years of high school work. It seems to me to be imperative that we provide four years of training in Commercial work in this department. It is not sufficient, not desirable that our Commercial students shall take the general course for two years and then take what Commercial work we offer for the next two years. Twelve hours of bookkeeping are all that are required by this course. Many good high schools require more than this of their students. Should not *our* students be prepared beyond the ground over which they expect to take *their* students?"

14.—"To the Survey Committee:

"The Biology Department recommends the following changes to the course of study.

"1. That Zoology 109 (Parasitology) or Zoology 3 (Vertebrate Zoology) and Botany 2 (General Botany) and Botany 3 (Systematic Botany) be required subjects in the Agricultural Course.

"2. That Nature Study be required in the Kindergarten and Primary Grade courses.

"We consider the core requirements particularly well balanced."

15.—"The task of making a course of study to meet specific needs is one too recently faced to be immediately successful. The major difficulties faced by course-makers (as over against course-adopters) are those involved in working out painstakingly the implications of such general principles as can be agreed upon by a more or less heterogeneous group of teachers in the face of incomplete information in regard to many aspects of the whole situation that is to be met, and under the plain necessity of, while being progressive, keeping effective touch with existing aims and practices.

"That this is a piece of arduous labor is suggested in the only tentative set of curricula for normal schools which a group of expert educators and administrators in the Carnegie Foundation produced after a couple of years, working at nothing else and availing themselves at every stage of their work of the painstaking criticisms of schoolmen in the field. The most that can be reasonably expected is that the initial results should be *progressive in tendency*. The criticisms that follow are made in no other spirit than this.

"Before entering on a criticism of the work produced by our Committee on Course of Study, it seems worth while once more to halt upon the sources of the general principles which course-makers may invoke for guidance in their work, in order to make sure that these principles are duly and soundly based.

"The general principles that are to guide course-makers in a Teachers College must be found in (1) The Aims of Education, (2) the definition

of the function of Teachers Colleges in the field of Education, and (3) the limiting factors of the historical situation in which they operate. Each of these has some clear implications for the guidance of the course-makers in selecting content. For the sake of exhibiting guiding principles so deduced a fresh definition of Education is more useful than a familiar one. This may serve:

**"1. EDUCATION IS TO CAPITALIZE INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES.**

"Likewise a fresh description of the function of Teachers College may be more suggestive than the usual one. This may serve.

**"2. THE FUNCTION OF A TEACHERS COLLEGE IS TO PUT TEACHERS IN THE WAY OF CAPITALIZING INDIVIDUAL CAPACITY FOR SOCIAL PURPOSES. MORE SPECIFICALLY, A TEACHERS COLLEGE IS TO ENABLE TEACHERS BOTH TO DISCHARGE ACCEPTABLY THEIR USUAL DUTIES IN THE PUBLIC SCHOOLS AND AT THE SAME TIME TO CO-OPERATE INTELLIGENTLY WITH THE SPIRIT AND IN THE TECHNIQUE OF MODERN EDUCATION.**

"3. The limiting factors of the historical situation must be sufficiently suggested in such general terms as CUSTOM, TRADITION, ADJUSTMENTS THAT HAVE OUTWORN OCCASION, GROUP-EXPECTANCY and the like—all of which the course-maker is bound to regard as potent operative factors in his problem. A course for teachers which was so 'modern' as to ignore these forces would also be so detached from conditions in the field as to be ignored by practical school men. The way of progress is evolution rather than revolution. It is by progressive, forward-facing adjustment to existing conditions,—aims, material, organization, practices.

"Now, the aim of education as above stated points out the two basic fields of responsibility which belong to the teacher,—the sources of the characteristic problems of *education* (of the *characteristic* problems of medicine, law, agriculture, et seq.). They are,

"1. To make due recognition of individual differences of capacity for social service.

"2. To make due recognition of the kinds of social service most needed from the next generation.

"These are the two indispensable clues to the *selection and adaptation of subject-matter in the public schools, the distribution of emphases within selected subject-matter, the organization of the school* for efficiency in its various activities, et seq. Since it exists for the sake of the public schools, a Teachers college is subjected to the full force of these general obligations of Education. It is to realize them in public educational practice. But since it enters a going concern, as a fresh department, it has to utilize the established structures, aims, practices, et seq. as its starting point.

"The statements of (1) the function of Teachers Colleges, and (2) of the limiting factors of the historical situation together contain the indispensable clues which lead to the necessary activities of *instruction* in Teachers Colleges. Teachers Colleges are

"(1) To insure to the public schools teachers who can acceptably carry on the established activities of the public schools; and

"(2) To insure to society teachers who will be able to provide a citizenry competent to meet its impending problems efficiently.

"It is obvious in (1) that a Teachers College must deal with the public school subjects of study. What the nature of its courses relating to these should be can only be determined by noting the deficits of public school work in these subjects with reference to (1) their recognition of differ-

ences of age and capacity, and (2) their adjustment to existing social needs. It is obvious in (2) that a Teachers College must deal with the subjects that are concerned with social conditions as they now exist. What these courses should be can only be determined by consideration of what social needs are most pressing, what opportunities exist in public schools for making knowledge of these conditions dynamic, and the like. The extent of public interest is one clue; the extent and gravity of public failure to understand and co-operate is another. The familiar criteria of *frequency* and *cruciality* must always be applied in determining what content to select. And it must be remembered that there are other educational agencies than the school.

"With so much by way of preliminary, I pass to the sub-committee's two general principles and the present curricula.

"1 The core requirements of a Teachers College should be determined by the professional responsibilities of teachers.

The first danger is that '*professional responsibilities*' may be too narrowly conceived. The question is, What are the *professional* responsibilities of teachers?

The answer, as above indicated, must be found in

- a. The aims of education; and
- b. The limiting factors of the educational situation.

In an ideal situation the professional responsibilities of teachers would be embraced in those duties to discharge which required expert service to a social end,—the adjustment of scholarship to the conservation of precious values. They would be those duties involved in

- (1) Making due recognition of individual differences of capacity for social service—the capitalizing of individual powers; and
- (2) Making due recognition of the kinds of social service most needed by society and servable through school education.

If its graduates entered a situation in which there was a keen consciousness of social needs, a Teachers College could satisfy the conditions of professional training by giving courses in the professional and academic subjects.

In the actual situation, however, these basic responsibilities if met at all must be met within the established structures of public schools, where aims, content, organization, and practices, though largely customary and only half-conscious nevertheless exert considerable inert pressure. Hence, to these basic *professional* responsibilities must be added an exigential professional responsibility, which is by far the most difficult responsibility to prepare teachers for, viz.:

(3) To bring scholarship to bear *within the existing* educational structure so as to approach realization of the social aspects of subject-matter, by adapting subject-matter to both social needs and individual powers, et seq.

"Do the courses in the required core meet these professional responsibilities? They do not altogether. They are both too few and too many.

"Let us follow in this criticism the order of enumeration of the three fields of professional responsibility.

"a. To make due recognition of individual capacities for social service involves,

- (1) Knowing the nature, extent, and causes of individual differences,—especially in so far as these are controllable,—and the consequences of ignoring them in education.



(2) Knowing the nature of children's powers, the order of their development, and the conditions of their development,—as a guide in selecting and adapting material,—and the consequences of ignoring them in education.

(3) Knowing the nature of the learning process,—so that it may be economically and successfully directed into the fields determined upon,—and the consequences of ignoring psychic laws in education.

(4) Having practical experience in adapting material.

(5) Being familiar with the common removable defects, handicaps, et. seq.

It may involve other equally important matters; yet these are enough to illustrate the shortage of psychology in the core. The core as it now stands may cover in four hours the first two desiderata. To become fully useful Psychology 2 needs to be supplemented by another four-hour course at least,—one in which the *laws of the learning process* would be applied to the school subjects; i. e., the Psychology of the School Subjects; and, if equality of opportunity is desired, Child Hygiene becomes essential. This was recognized by the committee, but was omitted *because it could not be agreed* that we should give another required course in Psychology. Education 11 covers a part of this field in resume, but it, too, does not touch the last item. Education 8 would be more useful to two-year students.

“b. To make due recognition of the kinds of social service most needed by society, and servable through school education, involves,

(1) Displacing the detached and magical view of how education serves society, by a view of education as an agency of society, for meeting its most pressing needs.

(2) Exhibiting the nature of social institutions and their relation to social life.

(3) Giving a perspective over the nature and bearings of typical and representative social problems of the day.

(4) Exhibiting the relation of present social conditions to school education.

(5) Building up a notion of the methods of social progress.

(6) Applying the generalizations of Sociology to the problems of the public school—especially to the course of study and organization.

“In the core as it now stands, items 1, 2, 3, 4, and 5 are dealt with in Sociology 3. It cannot deal adequately with 6 also in a four-hour course. To enable Sociology to make its full contribution to education, Sociology 3 should be followed by Sociology 229, in which Social Theory is applied to the Course of Study and the organization of the school. This was reorganized by the committee, but it was not felt that we could require another course in Sociology.

“Biology 2 must necessarily deal largely with the heredity basis of individual differences—using the environmental basis of differences for contrast. In this it somewhat overlaps Psychology 2, which deals with *instinct and individual differences*. The two courses should compromise their differences of view and divide the field where they overlap. Biology 2 also covers one field of typical social problems (see 3 above)—a very grave and important one, which should be understood by *every citizen*. I am inclined to think that, all things considered, Biology 2 should for the present be retained in the required core. But I should not, after the

transition from Normal School to Teachers College has been effected, object to its being confined to the *Teachers Course in the Subject-matter, Function, and Organization of Biology, required of all Biology teachers*, as would be similar courses in each of the special subjects of the high school. It is from teachers of Biology that we should in the future get our supporting public opinion in regard to the unfit population, e. g. Education 11 undoubtedly contains material relevant to both *a* and *b* in the core fields. I opposed it in the committee in favor of Education 8, which especially for two-year students contains much more material relevant to their professional problems. Education 11 should come at the close of the four-year course, where it should be a *summarizing* professional course in the *philosophy of Education*.

"c. To meet individual and social needs in an institution whose established activities are not the result of a keen consciousness of social needs and a scientific alertness to the relation of means to ends, but which may be gradually modified and extended to serve the full ends of public education involves

(1) Applying modern knowledge of individual differences, social needs, and of the present deficiencies of school education to the teaching of the school subjects as they are now made up, to the organization of school activities as now sanctioned et seq., so as to secure so far as possible the social values they contain in way of knowledge, attitudes, and discipline.

(2) Gradually modifying the content of the school subjects by extending the socially valuable material, eliminating the merely disciplinary material, et seq., by careful consideration of the needs of society and the latent opportunities in the school subjects, organization of activities, et. seq., for building up a citizenry equipped with the necessary knowledge and attitudes to realize democracy's ends.

"This aspect of professional responsibility must be regarded by Teachers Colleges as offering by far their most difficult and pressing problems of instruction. In so far as teachers in the public schools meet their responsibilities it will be because they have become thoroughly *conscious* of them. The opportunity of the teacher lies mainly in the course of study of the public schools. The teachers must *know* the *evolution of their course of study, the method of its growth* from the primitive curriculum, the factors that have given it its peculiar emphases on certain content, the relation of text-books to prevailing methods of teaching, the changing opinion in regard to actual values or social potentialities in the several subjects, the methods whereby change in the curriculum has been affected, the changes still needed, et. seq. (For fuller analysis see my *Alanalytical Outline of the Essentials of Educational Organization*, pp. 22-28.)

"If the foregoing brief analysis expresses somewhat the nature of this phase of professional responsibility, then the deficiencies of the *core* should be obvious. Except incidentally and casually in Psychology 2 and Education 11, and in the last section of Sociology 3, there is nothing touching this *heaviest* field of *professional responsibility*. In Sociology 3 alone is it a prominent part of the intention of the course to bear upon this set of problems, and there not much more can be done than attempt to *affect attitudes* somewhat. But to meet this phase of professional responsibility seriously, *much* more than a *sound attitude* is necessary. That is a beginning only. What is the real solution?

"The real solution is one that can not be undertaken all at once—unless we are ready *now* to *frame all our curricula* on a *four-year expectancy*; and until we effect a pretty thorough *reorganization* of our *educational activities*. It involves nothing less than a thorough treatment of the *Evolution of the School Use* of each of the school subjects.

Nothing less than this will give teaching a body of workers sufficiently equipped to transform it into a profession. This would mean a tremendous amount of very useful study on the part of the teachers of the different school subjects in the Teachers College. And it is perfectly certain that very few could be ready to offer a real College course of this sort in their subject within a year. There is at present only one course approximating this standard described in our Year Book; and only one Teachers College in the United States is now *preparing* such courses. But it is equally certain now that this is the direction of effort toward the solution of the phase of professional responsibility now under consideration. In the period of transition from Normal School to Teachers College (which is in most aspects a transition from rule of thumb to scientific procedure) the problem might be met by a 'unit course' scheme—wherein one teacher presented the introductor material on the present *educational situation* and the *social theory*, and in turn the teachers of each of the school subjects presented such material as they could gather concerning the *Evolution of the School Use* of their subjects. This might be managed in a double course of eight hours, possibly the first year. Gradually there should be accumulated in the field of each subject of the common schools enough valuable material to make (say) a two or three hour course. When this is done these courses should be incorporated with the required *core* covering the professional responsibilities of teachers in general—not of special teachers; but each teacher of a special subject should have had a thorough course in the *Evolution of the School Use* of his own subject; and all superintendents should have covered the field over which they have supervision. In specifying this particular type of course I especially wish to *exclude* the usual normal school 'Methods courses,' and the usual normal school 'Review Courses in the Common School Subjects.' There is a place for *Methods courses*, but they *do not meet* the situation for which we need these College courses.

"With regard to the core course requirements that *fall without the principles it should be clear enough that*

"(1) Library Science should be elective, not required.

"(2) Physical Education does not meet any *professional need*—whatever other needs it may meet.

"(3) English 4 would seem to belong on the same basis as the other common school subjects handled in the Teachers College; e. g., Math. 8, Geog. 12, History 13, Reading 9, et. seq. That is, if we are to require courses in these subjects they should not be review courses, calculated to ameliorate public school shortcomings, but should *assume adequate basis in the elements and do College work in the field or else be Teachers' courses* in the History of the School Use of Subjects.

"Discussion and application of the committee's second principle.

"2. The specific responsibilities of the type of position being prepared for should determine all other course requirements.

"The principle seems to me entirely applicable, and clear enough. The difficulty it provides is merely that of *listing* and *evaluating* the *specific responsibilities* involved in the different kinds of school work for which the several curricula were intended to be a preparation.

"Do the courses in the several curricula conform to the principles?

"a. **The General Curriculum:** It should be obvious that this principle condemns the 'General course.' General preparation for specific responsibilities is a contradiction in terms.

The 'General course' has been the least satisfactory of the curricula formulated by the committee—because it attempts to *do several things that are diverse* in requirements.

- (1) To receive students who have not yet found themselves, and, while they find themselves, to give them a taste of such work as teachers must do.
- (2) To prepare for grade teaching without specifying what grades.
- (3) To prepare for special work later in
  - (a) elementary school, or
  - (b) high schoolwithout specifying what work.

"Such general (i. e., vague) ends do not admit of a professional adjustment of scholarship to a problem. It is not possible to conceive of a general preparation for specific responsibilities. A statement setting forth such an intention can not be more than verbally intelligible. It can not be given any concrete form by anybody. The more specialized a curriculum is, the easier it is to make the necessary analysis of the responsibilities that are crucial to it; the less specialized it is the more impossible becomes the task. If it attempts only one thing, its crises are clear; if it attempts several, its crises are confused. Hence, the General course could not be satisfactory,—because it could not *focus* on any task. Any attempt to focus it, at once suggests dissolving it into special courses. The specified requirements of the General course illustrate this. As it stands it exhibits the *elementary school goal* of the curriculum. Its requirements do not suggest a high school goal. Had the attempt been made to exhibit this goal, it would have been necessary to frame an alternative set of requirements for those with a high school goal in mind. Thus, the General Course would have broken into two special curricula as soon as the first high school aspirant appeared. The next one would have needed somewhat different requirements, and so forward. In practice the student looking to high school work makes his own curriculum by election. The General Course is thus not one general course but an indefinite number of veiled special courses. The student who takes all the specific requirements of the General course and elects happily may in the end not be very far out of the channels marked out of the intermediate and grammar grade curriculum—but this is haphazard. The two saving graces of the General course lie in (1) the possibility it offers of becoming from two or three to fourteen special courses, and (2) *in the fact it comes more nearly than any other curriculum to making the list of professional requirements complete*. It obviously falls far short of this but any two year curriculum must fall short because it must select from a list of needs that are more numerous than there is time to cover; and because it must also select from those subjects upon which there exists in easily accessible form the material necessary to provide a course of a certain sort. Upon History, Geography, Mathematics, and Reading there exists material which would enable a teacher in a year or so of research to provide the course needed in the *Evolution of the School Use* of the subject. When we get down to brass tacks this will be expected.

"A few more specific criticisms may be apropos here:

1. The courses entitled *The Teaching of History, Geography, Mathematics, Reading* do not meet the needs for which they were asked for by the committee. The descriptions in the Year Book will show their falling short of the intention for which they were required. History 13 comes most nearly to fulfilling the professional requirement which they were asked to meet. Mathematics 8 is not quite so close; and Geography 12 and Reading

9 seem far away from the intention of the committee. This intention is clearly expressed in my Analytical Outline of the Essentials of Educational Organization, pp. 22-28, to which the Sub-Committee on Course of Study is here urged to refer in its deliberations over the General course.

2. The methods courses of the Training School repeat too much of Psychology 2. They have enough to do if they stick to their own field.

b. **Other Curricula.**

**General Remarks.** The Training School should have positive reactions to the curricula covering their especial years of work. The committee should consider itself entitled to have in writing either their suggestions for improving the curricula which they administer, or else their expression of complete satisfaction with the one that now obtains. It would be strange if the committee succeeded in framing any perfectly satisfactory curriculum.

(1) **Kindergarten.**

Training School 15 is alternative with Training School 31. This means that they do the same thing, or nearly so, in which case there is a case for the Duplication Committee; or else it means that the committee did not know which to require and left the student to settle the question, in which case probably both should have been left elective. Alternative prescriptions are always doubtful. They suggest either uncertainty or duplication.

So with Training School 5 and Training School 6. We don't need both.

If it is true that Kindergarten graduates often have to take primary positions, then probably Training School 1 should be required in the Kindergarten curriculum. If it is not true, then there is no warrant for requiring 15 hours of teaching in the Kindergarten; for this was done on the assumption that they do.

Perhaps Training School 3 should be required in the Kindergarten.

If Kindergarten graduates often must teach primary work, then the Kindergarten curriculum should be much closer to the primary than it is—and should show *fewer rather than more* electives.

Nature study would seem to belong in this curriculum.

(2) **Primary.**

Training School 5 and Training School 6 duplicate each other. It would appear that four hours of the eight now given to *methods* might be given to (say) Reading and the *Primary Course of Study*. Is the Kindergarten program more difficult than the Primary curriculum? It would apparently be easier to combine Kindergarten and Primary than the following years.

- (3) Much uncertainty is introduced into this curriculum by the *absence of descriptions of several of the courses*. The vacillating alternative prescriptions are a further element of failure in this curriculum. The misleading titles "History Methods", et. seq. should be changed, and the year book's descriptions of those courses should all be made to conform to the committee's intentions in prescribing these courses in the General Curriculum.

Probably a course in School Management is needed in these grades. Problems of control arise here.

In these grades elimination from school becomes heavy—very heavy in Colorado. In so far as physical handicaps are caused in this the school can do something if its teachers know the symptoms of such handicaps. If Child Hygiene be made a core requirement this will be met. Otherwise, possibly here is where to introduce it—on an opportunist basis.

If we can not yet bring ourselves to the modern attitude toward professional courses in the Evolution of the School Use of the School Subjects so far as to require these in the core, when we need in *each* curriculum a course on the *Course of Study* in which we at least admit its problems.

#### (4) County School.

Sociology 6 in the Year Book is an elementary course in theoretic sociology. No good reason can be given for requiring it in this curriculum. Either Rural Sociology or Sociology 3 should be required here.

*Education 25* in this curriculum recognizes the general idea broached in my discussion of the General Course, the primary, and the intermediate and grammar grade curricula. The position is sound. It is a part of professional training. (See the courses offered by the Industrial Arts curriculum on its tools and equipment.)

The courses on *The Teaching of Geography*, et. seq., are open to the same criticisms here as elsewhere, though in less degree, possibly.

*Agriculture is useless* in the country unless taught as *projects*. If *academic*, it is merely *silly*—a carrying of coals to Newcastle. Think what can be done in teaching Agriculture in the country by town-bred girls with four hours of Agriculture. Will it be “dry-land or irrigated Agriculture? What course is this one in the *Year Book*, pray? There are forty listed. See the State Course of Study and consider what it outlines. Will you specify that for the present, for the sake of having some *reason* (even though a poor one) for prescription?

Public Hygiene 5 is not described in the Year Book. It is much more appropriate for city schools than for rural schools. The lack of General Science in this curriculum seems to me a weakness. In this if in any curriculum the *electives* should be enumerated.

#### (5) Industrial Arts.

The group of electives enumerated seems without reason, for the most part.

There ought to be a course in which the *Evolution of the School Use* of these subjects is given. I think this has been a part of the intention of Industrial Art 5, but am not sure.

#### (6) Music.

I suppose a music major would *appreciate* music. But she ought also to learn how to *foster appreciation* in those with less opportunity to know music. I think she should take whatever course in the appreciation of music is offered by the department, in order that she may observe how appreciation may be encouraged. If music is for anything, it is for enjoyment by those who can not make money out of it.

(7) Household Arts.

The only criticism that I have to offer here is that students complain of being required to take courses which they have already had in high school. I have verified this as far as I can. I believe that it is the case. Either we offer high school courses in College, or else *some* high schools give college courses. In either case we have no business to *repeat*.

From a social point of view *all women* should be given at least one course in Child Hygiene. I am aware of the objections to this, but do not care for them. Most of our teachers early marry out of teaching. They will thus come to realize and support the most useful work that we do.

(8) Household Science.

I suppose it is permissible to mention again the household science of rearing children. All women in a nation like the United States, which has a higher infant mortality rate than most of its rival nations, should have a course in child hygiene. They will have more practical use for it than for most other knowledge they get. It is knowledge for a *crucial* situation.

(9) Fine and applied Arts.

In my ignorance, this looks satisfactory.

(10) Agriculture.

What physics? What Poultry? Do we get no boys from Dry Farming regions? Do we send no teachers to Dry Farming regions? Why no course in Farm Economics? Why not General Science in this curriculum? Here again, should not electives be enumerated?

(11) Physical Education.

If physical education majors teach nothing else, possibly Sociology 1 should displace Sociology 3. Perhaps English 4, Psychology 2, and Education 11 could be displaced by courses in the Training Table, Nutrition, Social Hygiene, or the like.

(12) Commercial Arts.

Sociology 7 in the Handbook of Extension (the only place it is listed) is Social theory. I can see no reason for it here. By a stretch of imagination one might have placed Social Psychology in this curriculum—but not Social Theory. Business Psychology would be desirable if it could be had.

The History of Commercial Teaching is worthy of praise if it has been actually worked out. It is a part of the professional preparation of the special teacher in this subject.

The number of hours in the technical subjects seems small for high school teachers.

Probably here again the electives should be enumerated.  
"Conclusion. None of these curricula will be satisfactory until all are worked out in full on a four-year expectancy. I do not care just now whether they are so printed or not—though they should be to offset criticism from the universities. But I distrust all half-done work. The perspective that we need for the short courses will not be had until we have tried to work out the second two years. Curricula for superintendents and for high school teachers of the special subjects should be at once worked out.

"Besides selecting content to meet general and specific responsibilities, those who frame a course of study should feel bound to *arrange* this content so that it may produce the desired effects. Some subjects are advantageously taken only when certain other subjects have already been studied. The value of any course depends somewhat upon what it added to. There has been too little careful attention to the ordering of our courses. By so much as this is true our work is not *organized*.

Especially in the required subjects there should be some sequence that is better than just any sequence. I shall not prolong this report by attempting to point out the *need of naming prerequisites* for certain courses. It is clear that for the professional courses an *academic* basis is *indispensable*. It should be named and *made elective*.

"Again, a course of study committee should probably assume the responsibility for the administrative work of scheduling the studies so as to make the program work as nearly automatic as possible. Here again I shall not go into detail. One illustration will do; e. g., Domestic Science people could work much better if their Chemistry were scheduled in the afternoon. As it is scheduled in the morning they sometimes have to try to schedule 8 hours in the afternoon. Laboratory courses thus often give the students very hard schedules.

#### "Summary:

The weaknesses of our present curricula show three main aspects:

1. Failure to work out consistently or completely the concrete implications of the general principles governing the selection of studies to cover both the general and the specific responsibilities of teachers.
2. Failure to consider the relations of subjects to each other—the sequence in which they should be most effectively studied.
3. Failure to set these studies in a schedule that would facilitate the operation of the program.

"Having thus in some detail called attention to deficiencies in our curricula, it is important once more to insist that the *first failure* is the fundamental one. No *arrangement* or scheduling of poorly chosen studies can excite much admiration. If our *general principles* are adequate they should be applied thoroughly. If they are not adequate, the attempt to apply them thoroughly will reveal quicker than anything else their *inadequacy*. Let us therefore complete our summary by bringing together in the form of a list of studies or unit courses the results of the foregoing criticisms—exhibiting the *responsibilities* to be met, the studies appropriate to them, and the *time* needed to make the studies effective all in conjunction in a Core group of studies.

#### I. THE GUIDING PRINCIPLES.

1. The professional responsibilities of teachers should determine the Core requirements.

These responsibilities are three:

- a. To adjust school work to individual differences.
- b. To adjust school work to social needs.
- c. To adjust existing school aims, subject-matter, organization of instruction, et seq, to the needs of society and the capacities of the individual.

2. The specific responsibilities of the different kinds of teaching position should determine all other course requirements.

These responsibilities vary with the age of the students, the composition of the population, the subjects of study involved, et seq.



## II. APPLICATION OF THE PRINCIPLES TO THE FRAMING OF A CORE OF STUDIES.

| The General Responsibilities.   | The Topics of The Study   | The Courses.                             | The Time Needed. |
|---|---|--|------------------|
| <b>1. School adjustment to individual differences Involves knowledge of</b> |   |  |                  |
| a. The nature of children's equipment for life in society.                  | Instincts; individual differences. Order of development. Conditioning factors. Situation, re-<br>sponse.  | Child study,                             | 5 hrs.           |
| b. The method of mental growth.   | Stimuli, the learning process. The organization of experience. Conditioning factors.  | Educational Psychology,                  | 5 hrs.           |
| c. The application of psychological knowledge to the school studies.        | The psychology of the school subjects. The adaptation of material. Critical examination of text-book. Organization of knowledge for the different grades. Critical examination of school methods in the school subjects. Scales, measurements, tests. | The Psychology of the school subjects.   | 5 hrs.           |
| d. The testing of school work.  | The relation of individual to society. The organization of society. The structural elements of society. Institutions as evolutionary products. The meaning of progress.   | Mental Tests and Measurement of results. | 5 hrs.           |
| <b>2. School adjustment to social needs involves knowledge of</b>           |   |  |                  |
| a. The nature of society.   | The methods of progress. The barriers to progress. The rival methods of organization, and the consequent problems of democracy.   | Social Organization,                     | 5 hrs.           |
| b. Present social strains and deficits.                                     | Representative social problems. Origins and interrelations of social problems. The relation of change to social problem. The relation of change to institutions.  | Social maladjustment.                    | 5 hrs.           |

| Responsibility.  | Topics.  | Courses.                                    | Time.  |
|--|--|---|--------|
| c. The bearings of Sociology upon the Course of Study and the organization of school activities.   | The school as a social institution. The social theory of education and its implications for the Course of Study and the organization of school activities. | Educational Sociology.                      | 5 hrs. |
| d. The formulated Educational thought of the time.   | The persistent problems of education, and the widening horizon of explanation. The present centers of interest and conflict. The tendencies of effort.     | Philosophy of Education (Ed. 11 and Ed. 8). | 5 hrs. |
| <b>3. The adjustment of school aims, subject-matter, organization of instruction, et. seq. to social needs and individual capacities involves knowledge of</b> |  |   |        |
| a. The evolution of the school. Use of the school subjects.  | The social forces by which the subject became a part of the curriculum.  | The Elementary School Curriculum.           | 8 hrs. |

The whole social situation out of which the demand for the subject arose and in which the attitude of the school to the subject took shape: educational philosophy, science, industry, et seq.

The school refraction of the subject—its causes and results.

The evolution of aims and practices. The relation of text-book organization of knowledge versus psychological organization of experience.

The present status of opinion in regard to the values of the subject. The relation to these of the changing social situation. The changing character of text-books.

The standards of value in the subject as today evaluated. Their relation to established practices in the use of the subject.

The nature of the problem of the modern teaching of the subject—its factors. How to work on it.

“Such a comprehensive scheme would be feasible only in a four-year curriculum. Note that it covers 48 hours—one full year of work. Note also that the *scope* of the units is *widened*, and that the *content* of each is so defined as to eliminate overlapping. This would mean a sharpening of purpose in our required work—which could be secured absolutely by requiring *syllabi* of required courses. Spread over four years the enlarged core would not be disproportionate. It would not be heavier than

the present core is for a two-year curriculum. Note also that the present core is an attempt to meet *essentially the same general responsibilities* as the larger core: e. g.

| PROPOSED CORE FOR<br>FOUR YEARS |        | CONTENT   | PRESENT CORE FOR<br>TWO YEARS |         |
|---------------------------------|--------|---|-------------------------------|---------|
| Child Study.                    | 5 hrs. | Instruct individual dif-<br>ferences conditioning<br>factors. | Educ. Phy.                    | 4 hrs.  |
| Educa. Psych.                   | 5 hrs. |   | Biol. 2                       | 4 hrs.  |
| Psy. of School                  |        |   | Educ. Soc.                    | 4 hrs.  |
| Sub.                            | 5 hrs. |   | Educ. 11                      | 4 hrs.  |
| Mental Tests and<br>Measures    | 5 hrs. |   |                               | 16 hrs. |
| Social Organiza-<br>tion.       | 5 hrs. |   |                               |         |
| Social Malad-<br>justments.     | 5 hrs. |   |                               |         |
| Educ. Soc.                      | 5 hrs. |   |                               |         |
| The Course of<br>Study          | 8 hrs. |   |                               |         |
| The Philosophy of<br>Education  | 5 hrs. |   |                               |         |
| —                               |        |   |                               |         |
| 48 hrs.                         |        |   |                               |         |

### PRIMARY GRADES COURSE

#### Year Book Page 23

16.—“As this course has been considered very little in the present year’s work, it is hard to criticise from experience—it must be mostly theoretical.

“First, if the object of this school is the *training of teachers*, there surely should be some means devised whereby the students may have at least the amount of teaching *required* in the year book. Is our aim to have the names of so many graduates to the credit of our school or are we endeavoring to graduate students who can *teach*? These points must be settled before a curricula can be intelligently discussed.

“If the former object be decided upon, it would seem to matter little *what* the course of study is—just so we are sure the students *earn* their credits.

“If we are really aiming to train students so they can really teach when they leave our school, then let us remember one of the first principles of life as well as of education, i. e. “We learn to do by doing,” and consequently let us include in our course of study sufficient teaching (not to be substituted by observation or methods) so the student can be reasonably sure that he can teach.

“Furthermore, if we hope to give to the educational world any teachers above mediocrity let us give the student who shows superiority an opportunity for superior development. In other words, shall we excuse a girl from the required amount of teaching because she shows superiority, and thus graduate one more ordinary teacher, or, shall we, because of this promise of superiority give her all the required teaching and make possible more—in order to help her to be superior. Let us consider it both from the standpoint of the reputation of the College and also from the good we hope to do in the educational world and for the individuals. I think we already have examples of such cases.

“Methods and observation should be included in the same course, and this course should be a required in the Junior year. Would it not be

better to make out the course of study for each year in place of having the course cover the two years almost indiscriminately.

"Music Methods for the Primary grades have been omitted from the catalog. It must be a type error, as it was included in the course which was approved last year. *Two* courses of Story Telling should be required as a large percent of primary work is based on Story Telling. Each course 2 hours. Training School 3 has not been offered this year. I should advise its being dropped from the requirements of the first two years. It should be in Senior College.

"We hear much about Training School 1 not being practical for Primary teachers. Might it be possible that Training School 5 and 6 would make it unnecessary for those specializing in Primary.

"Dr. Adams advises Nature Study 2 in place of Zoology 5."

# THE EFFICIENCY OF COLORADO STATE TEACHERS COLLEGE GRADUATES IN THE FIELD OF PUBLIC EDUCATION

By S. M. HADDEN

A questionnaire to the county superintendents of the various counties of the State of Colorado and many of the leading superintendents of the State was sent stating that it is sent out for the purpose of finding out the efficiency of Colorado State Teachers College graduates. It is copied in full below, and I believe explains in sufficient detail the purpose of the questionnaire.

"A Committee of the faculty is trying to secure information regarding the efficiency of Colorado Teachers College as this is revealed in the work of its graduates. It is intended to make this study cover the entire period of the school's existence. You can greatly assist us in this work by giving frank and as complete as possible statements concerning the following matters. Your answers will be held strictly confidential.

Very truly yours,

(Signed) J. G. CRABBE,  
President.

"1. State the length of your service in Colorado.

| Name | Place | Date of service in each place |
|------|-------|-------------------------------|
|------|-------|-------------------------------|

"2. Give names of graduates of this institution who have served or are serving, under your supervision and who, in your judgment, were, or are, successful teachers.

| Name | Place | Reasons for success |
|------|-------|---------------------|
|------|-------|---------------------|

"3. Give names of graduates of this institution who have served or are serving, under your supervision and who, in your judgment, were not, or are not, successful teachers.

| Name | Place | Reasons for failure |
|------|-------|---------------------|
|------|-------|---------------------|

"4. Give names of graduates of this institution who have served or are serving, under your supervision and who, in your judgment were, or are, of medium ability as teachers.

| Name | Place | Reasons for ability designated. |
|------|-------|---------------------------------|
|------|-------|---------------------------------|

Replies were received from practically all of the county superintendents and many of the city and large town superintendents in Colorado.

Number 1—State the length of your service in Colorado.

This was, from my standpoint, not a valuable question to ask these superintendents and principals and, as we expected, the results revealed nothing particularly worth while. We, however, thought it wise to put in the questionnaire some question that could be answered readily since those following require considerable time and investigation of the records of the various counties and cities in the State.

Ordinarily people in executive positions are not willing to take sufficient time to the answering of questionnaires of this kind, with the result that the findings become correspondingly less valuable. This first question gives us a fair idea of the length of service of each individual answering the question, which helps somewhat in our evaluation of the further replies to the more important questions following.

Number 2—Give names of graduates of this institution who have served, or are serving, under your supervision and who in your judgment were or are successful teachers.

Below, under the head "Reasons for Success" are a number of typical replies regarding the efficiency, etc., of individual teachers who have in the opinion of superintendents been successful. These replies are particularly valuable since they throw some very interesting light on what should be the required materials of the courses of study in order that teachers in service do their work in the most complete and most satisfactory manner.

"Neat, attractive, good disciplinarian; hard, conscientious worker."

"Patient, hard worker; discipline good; instruction and preparation good."

"She lacks animation but makes up for it in hard, conscientious work. Work well planned and is always looking for helpful suggestions."

"Secures interest of children. Gives a variety of work, but all is fairly well organized."

"Appeals to children because voice and manners are pleasant. Has her work well planned."

"Well poised, good control, quiet manner, firm. Well planned work."

"Understands how to gain confidence of children. Secures results. Good discipline."

"Children foreign and she is genuinely interested in them. Secures their confidence. Strong community interest."

"Genuine interest in the life of the children. Arouses ambition and gives children a broader outlook. Can teach children more than the work of their text-books."

"Well liked by children; good in discipline; works well with community. Secures results."

"Well poised, very pleasant voice and manner. Works in a foreign district and is particularly good in teaching language. Attractive to children. Discipline good and work well organized."

"Patient, conscientious, good worker. Discipline good. Work well planned."

"Only fair, weak in her subject-matter but anxious to succeed and works hard; pleasant manners."

"Had a definite aim and took most direct method to attain it. Good control."

"Exceedingly attractive, and secures immediate response from children. Gives any amount of time and effort to secure results from the most unpromising child. Community interest strong. Very original and resourceful."

"Children will be attracted by her voice and smile, at first; she holds their confidence and secures good results."

"Well trained mind, sureness in her subject, inspires confidence in her pupils. Secures order with ease."

"Good primary teacher. Pleasing voice and manner. Secured response from children."

"Neat; thorough in work; liked by children; secures results."

"Secured results in this school, which is something of a problem. Would not fit everywhere. A peculiar personality."

"Strong in administration. Good instructor. Knows his subject and presents it in a direct manner."

"Good grasp of educational principles. Willing to carry out instructions of superintendent to best of ability. A very able school man. Good judgment, unusually well prepared, open to suggestions, does not pretend to know it all. I have no stronger teacher than Mr Blank."

"Well prepared, good judgment, willing worker, open to suggestions, attitude of learner."

"Nice temperament for small children. Fair grasp of principles, willing worker, open to suggestions, attitude of learner."

"Complete success in the school room but a little careless socially. Nevertheless, I should not hesitate to recommend her re-election."

"The most original primary teacher it has been my privilege to meet. She not only works hard in the room but grows professionally all the time. True professional spirit."

"Sincere in purpose, and sympathetic and pleasant with third grade children."

"Cheerful disposition, good manager, good growth."

"Good instructor, enthusiastic, alert, good manager."

"Manual training teacher, pure gold, very successful, knew her work. Knew how to teach; also a refining influence upon her pupils and associates."

"None better. Perhaps a little conscientious; one of the best teachers I ever knew. A steady worker who secured good results. Excellent manager."

"Has the necessary qualifications of a teacher. Her Irish manner gets hold of all her pupils."

"Experience. Understands her pupils well. Uses a group study and group teacher plan in most of her work."

"Well informed primary teacher. Is known by every child and parent in the country and trusted. Has strong personality."

"Careful, alert, adaptable."

"(Commercial Teacher.) Successful because of the great amount of energy and enthusiasm that she puts into her work."

"Personally I feel that Greeley does train teachers. I do not know of a single graduate who has failed to make good in our county."

A list of replies from another group of questionnaires in which the replies were more general and referred to groups of teachers rather than to particular individuals:

"Ability as an instructor, ability as disciplinarian, community work, the rather indefinite answer 'Good training,' push and energy, method, artistic, good sense, hard worker, well prepared and conscientious, specially adapted and well trained, native ability and normal training, special training for particular grade or work, strong, well trained, earnest efforts, good mixer, gets along well with pupils, scholarship and personality, industrious, loyal, faithfulness, adaptability, painstaking, patient, determination, lover of children, progressive, quiet manner, neat, system-

atic, forceful, quiet, unassuming, good poise, tactful, resourceful, common-sense ability to do things, ability to control and influence for good, broad human sympathy, ability to meet emergencies, kind, original, knows how to teach, makes thorough preparation, alert, excellent manager, strong character, fitness, firmness, gentleness, knows material and means to make things go, able to interest and keep interested, takes suggestions, courteous, beautiful character, high ideals, confidence in own ability, natural aptitude for doing combined with adequate training,"—this in general comprises the terms generally used by the county superintendents in evaluating the ability of Colorado State Teachers College graduates who have made good.

A careful survey of the replies from all of the questionnaires gives some very interesting materials for consideration in the organization of courses of study for teacher training institutions. Logically, and we might say naturally, these replies fall into one of three groups and involve not only fields in which the College may hope to give training, but also other fields in which the larger environment plays a very important factor. We are listing these as we see them. We cannot cut a beautiful finished diamond unless we have the rough diamond materials with which to begin:

a. Personal qualifications and characteristics that are responsible for the success of individuals, and also characteristics that we will see upon further analysis are also responsible for individual failures.

The terms industry, loyalty, faithfulness, adaptability, personal neatness, gentleness, high ideals, common-sense, the dedication of one's ability to the best service of the community and many other qualities that make for personal charm and indefinable somethings that no amount of good learning can give.

The terms personal qualifications and characteristics we know are not capable of a definite definition. We do have a general understanding of and feeling for such a power in an individual that will attract to him the people he or she desires to attract. The individual that has these characteristics we are always glad to meet and are more than glad to have an opportunity to discuss viewpoints with them. They are the people that the children say can do anything. At one time I was taking with some eighth grade pupils who were discussing the rather serious and difficult problems involved in a contemplated undertaking and suggested that the problem as a whole was too difficult. The pupils replied: "Miss S— can do anything." With such confidence in their instructor pupils are able to reach unexpected and very difficult ends. The child must have confidence in the teacher's ability to do.

This again means that teachers must be trained in the fields that make for efficiency in the lives of people now, not in the fields that make for the training of teachers to understand the lives and experiences of long past civilizations, unless this is possible without materially shortening the course in the materials needed to be understood to interpret our modern civilization.

b. Social Viewpoint: Those teachers who are able to become important factors in the social life of the community, and who have ability to organize the school work of the children with a social background.

In this modern day when real education is more and more functioning from the standpoint of community needs, when educators go into the community and become worth-while factors it is highly essential that teachers graduating from Teachers College be given a broad understanding of the movements that are worth-while from the community standpoint; that are going to help in the general tone of these communities.



Young men and women graduates are very glad to assume their proper share of the burden, but in most cases they do not know they need people to direct them. Later if time and space permit, we will interpret the social viewpoint in the light of these questionnaires in a more extensive way.

6. Technical Training for Profession: Training for work undertaken, a lover of children, and special preparation for the particular job, were the types of replies the emphasis was placed on, plus association with people who would inspire the new teacher to do, and to become more efficient. In other words, a feeling and understanding that the educational problems have not been solved, that the organization and re-organization of the schools must, if to be most highly efficient, go hand in hand with the development of the civilization of the age; if a mechanical age, then the mechanical becomes an important factor in the development of the school work.

Under the third head: "Give names of graduates of this institution who have served, or are serving, under your supervision and who, in your judgment, were not, or are not, successful teachers," I find that the great majority of the students, and the number as a whole is exceedingly limited, who have not been entirely successful in their school work might be grouped under the following heads. These replies are from the questionnaires and throw an interesting light on why teachers fail:

"As a rule C. S. T. C. graduates have made strong teachers for me. I think of two or three who were only fair teachers, and in each case I attribute their failure to reach the highest efficiency to personal characteristics for which the school was not responsible. In twenty years experience in Colorado I have had only one teacher who was a real failure. Her failure was not due to her school but to personal traits of character that would not yield to treatment."

"Cross with children, untidy in appearance, work lacked organization, meddlesome with other teachers, ill health."

"Very nervous, voice sharp and hard on nerves, nags, always aroused antagonism in the children. Order very poor."

"Unreasonably severe, created fear in the children."

"Lax in discipline, poor in instruction, work unorganized."

"Unreliable, finally discharged because of continually coming to school late, and somewhat questionable conduct."

"Would not say that she is a failure but her success is a question. There seems to be quite a bit of dissatisfaction. When I saw her, her work was not well prepared, her room was untidy, her manner of dressing has been unattractive and sometime untidy wherever I have seen her."

"Wholly lacking in earnestness three years ago. Very indiscreet in conduct. Again the community may have been partly at fault."

"Unable to apply pedagogical principles, not fitted for teaching by nature."

"No stability, too flippant, no serious interest in teaching."

"Careless, no serious interest. "Did not like hard work."

Under the fourth head "Give names of graduates of this institution who have served, or are serving, under your supervision and who, in your judgment, were, or are of medium ability as teachers," we received a group of replies from which the list below is taken.

"Capable of *excellent* work. Is not dependable; one has to keep her under watch all the time. Not loyal, slights her work.

"Unwilling to put forth sufficient effort. Not especially fitted for teaching."

"Never willing to take suggestions. Knows it all; disloyal; a nasty disposition, says first thing that comes into her mind."

"Fails to command attention of grade pupils. Methods are better adapted for High School or College students. An earnest worker with high ideals, but lacks executive ability."

"Lack of experience but is improving nicely. Very enthusiastic and hard-working."

"Doing well in rural community. Needs experience before being better placed. A good earnest girl."

"Methods rather old fashioned. Not in sympathy with that particular community, but would suit nicely elsewhere. Morals and ideas of the highest class."

"New in the work since January 1st, but doing nicely. Good control of pupils, pleasing manner and seems thorough in her work.

"All those that I have classed as successful are, in my judgment, fairly entitled to be so ranked. Such shortcomings as a few of them may have had were not fatal and were overcome with a little experience. I refer to such matters as a lack, in a few instances, of management of a large group of pupils, a disposition again in a few instances, of attempting to fit the pupil to the method, and a disappointment at not finding ideal conditions. A little time and patience remedied these undesirable features."

"Not a failure by any means. Not so enthusiastic about her work as some others. No special community interest."

From a Superintendent graduate of the College: "Being very modest, of course I would not class myself with the list of experts and would dislike classing myself as a failure, therefore, I shall leave that part of our classification of teachers for Teachers College to do."

"A fair teacher and possibly will receive re-election if she wants it. Not very strong. Does not take care of her strength as much as she should. She is quite inclined to matrimony at present."

Questions number Three and Four, as interpreted in terms of answers submitted, imply a lack of personal characteristics that make for a professional attitude toward the teaching profession. A few outstanding ones are: Unwilling to put forth sufficient effort, unreliable, very indiscreet in conduct, voice sharp and harsh, ill health, no stability, flippant, and untidiness in dress.

Again from the social viewpoint there seems to be on the part of those who were a failure or only a partial success a lack of social responsibility, not in sympathy with that particular community, no special community interest, has other personal interests, disappointment of not finding ideal conditions, and many other shortcomings. Time and space do not permit enlarging on the terms in this list.

c. Training for Profession: Under this head we might enumerate such items as: needs experience, methods rather old fashioned, work lacked organization, work unorganized, lax in discipline, poor in in-

struction, order very poor, meddlesome with other teachers, created fear in children, and lacking in earnestness.

Conclusion: The training of an efficient teacher then, as interpreted in terms of the answers in the questionnaires sent out by our committee, seems without any doubt to imply that it is imperative that teachers be trained in the following needs:

Personal: I realize we are treading on thin ice when we are trying to define personal characteristics that make for efficient teaching, but we are trying to evaluate in terms of the questionnaires sent out. It seems to mean such an attitude of mind, such a sympathetic spirit, such a wholesome personality and such a broad, optimistic viewpoint coupled with an inquiry into the why that a student coming in contact with such a teacher will be inspired to make the best possible out of himself.

Social: Teachers should be trained in the social understanding in order that they may be able to intelligently interpret the best life of the community in which they are teaching in terms understandable by the pupils, that they become a factor for good in the social uplift of the community; that they be interested in worthy community undertakings of all kinds. In other words, that they become a live directing force for good in the community. This in itself implies a training of a type that is not common in all our teacher training institutions.

Later, if space permits, we hope to interpret this in terms of the curricula of this school, evaluating them from the standpoint of the terms of these replies.

Technical or professional: This we interpret to mean training, interpreted in terms of questionnaires, in the materials of understanding as applied to contemplated teaching work in particular teaching fields.

The individual trained for some particular work is of much more value than one trained in a general way, which in this day and age of specialization means nothing. Teachers must be specialists if they are to succeed. Leaders in education are more and more realizing that the field of human endeavor is so comprehensive that it is impossible for one individual to know any but a very small part of the complete activities of peoples. Replies to this section of the questionnaire seem to demand special training for service in whatever educational field an individual attempts to teach and points directly toward the modern movement in education as being along the right direction. I mean the Junior High school grouping especially.



# QUESTIONNAIRE TO GRADUATES OF THE COLLEGE

By S. M. HADDEN

A questionnaire was sent out by the subsurvey committee on curriculum to all of the graduates in the state of Colorado, asking them to carefully fill in replies to the questionnaire below:

Dear Alumna (us):

In order that our school may render the best possible service to the people of our State, we beg leave to ask you for a very careful and frank reply to the following questions:

1. Are you married or single?
2. What course did you take in our school?
  - a. General
  - b. Special (specify which special course)
3. "On account of the deficiencies in the training received in our school, what positions did you,
  - a. Fail to secure?  
State the deficiencies.
  - b. Refuse to accept?  
State the deficiencies.
4. Have you been assisted in securing a position through the kind of training received here? Specify the kind of training.
5. Make a list of the positions you have held since graduation here.
  - a. Teaching:

|    | Place | Date | Salary | Grades |
|----|-------|------|--------|--------|
| 1. |       |      |        |        |
| 2. |       |      |        |        |
| 3. |       |      |        |        |
| 4. |       |      |        |        |
| 5. |       |      |        |        |
| 6. |       |      |        |        |
  - b. Other sorts of work:

|    | Place | Date | Salary | Sort of work |
|----|-------|------|--------|--------------|
| 1. |       |      |        |              |
| 2. |       |      |        |              |
| 3. |       |      |        |              |
| 4. |       |      |        |              |
| 5. |       |      |        |              |
| 6. |       |      |        |              |
6. In regard to the positions of teaching listed under a in 5 please specify: the kinds of training:

|    | Found most useful | You felt most in need of | You have not found useful |
|----|-------------------|--------------------------|---------------------------|
| a. |                   |                          |                           |
| b. |                   |                          |                           |
| c. |                   |                          |                           |
| d. |                   |                          |                           |
| e. |                   |                          |                           |
| f. |                   |                          |                           |
7. In regard to the other sorts of work listed under b in 5 please specify the kinds of training:

|    | Found most useful | You felt most in need of | You have not found useful |
|----|-------------------|--------------------------|---------------------------|
| a. |                   |                          |                           |
| b. |                   |                          |                           |
| c. |                   |                          |                           |

8. Since graduating from our two-year course have you received, here or elsewhere, any training?

If so, state:

| Place beginning work | Date of ending work | Subjects studied | Degrees Diplomas |
|----------------------|---------------------|------------------|------------------|
| a.                   |                     |                  |                  |
| b.                   |                     |                  |                  |
| c.                   |                     |                  |                  |

9. Please give any additional information and suggestions which you deem of value to your College in its efforts to develop a curriculum well adjusted to the needs of its graduates.

We extend our sincere thanks and best wishes to you for a prompt and careful reply.

Very cordially yours,

J. G. CRABBE,  
President.

The committee received replies from about 1,000 former students and graduates of the College. Question number 1, are you married or single, was sent out at the request of some of the members of the committee. This section of the questionnaire is of no particular interest to me in my study of the curriculum. It, however, shows some matters of interest to the authorities of the College, and if properly tabulated would show an interesting graph of the possibilities and opportunities that men and women students have in the teaching profession.

Number 2—What course did you take in our school? (a) General. (B) Special. Specify which course. This section of the questionnaire is not at all a fair measure from the beginning of the school of the number of people who have completed either a so called general course or a special departmental course.

For a number of years after the founding of the College the only course in the curriculum was a somewhat general course that seemed to be the best type of organized course known at that period for the preparation of public school teachers. With the evolutionary changes in education, along administrative and instructional lines, there were gradually added to the courses those we have been pleased to call special or vocational courses. The questionnaires have been sent out to all of the graduates we were sure were available in the State, that is those whose addresses were permanent at the time. The great majority of the graduates completed this so-called general course. Long before the special courses had developed into special courses for departmental diplomas there were courses offered in Manual Training, Domestic Science, Household Art, Art and Music. These I believe were at first departments that offered special departmental diplomas, and were also the first group of so called special subjects that had a place in the general course.

An interesting bit of information that persists in the reply to sub-head (b) is that with the advancement and addition of more special courses in the College, more and more people are becoming interested in the teaching of special lines of work. In other words they are beginning to realize that in the efficient organization of the modern public school, practically all of the teachers above the, say, first five grades must be specialists if they are to do the most efficient type of educational work, since the relation of public education to the future activities that children are going to enter is becoming a very much more important factor in the organizing of the preliminary school activities of children. The departments that stood out in the earlier plan of offering special courses were first, Music; second, Manual Training; now, Industrial Arts, Art, Arts and Household Science expanded into the two departments named, and the offering at a later period in the school of a course with the major in Agriculture. At one time it was the practice in the insti-

tution to give a general diploma to all graduates of the College and to those who had done efficient work in any of the other special departments named above, a special diploma that stated that the graduating student had become an especially proficient teacher in this particular field.

The organization of the material in the annual catalogs of the College from year to year shows a gradual addition of special courses with a corresponding decrease in students in the general course. At the beginning of this survey the Institution offered a general course, but offered twenty-six special courses that have a common educational core running through them all.

Number 3—On account of deficiency in training received in our school, what position did you (a) fail to secure? This section of the questionnaire we anticipated would have some interesting replies, but unfortunately, practically the entire group of graduates seemed to feel this particular question of no account, and in other cases the replies were of such a nature that they did not bear on this particular topic. I am inclined to think that in general graduates did not appreciate, or we were unable to ask the question in the proper way. To illustrate what I mean, here is a reply to this question: "I have no fault to find with the training as a whole. A few courses were not very helpful, but perhaps that was my fault. Geography was least helpful. My term in Greeley was not especially happy; perhaps that too was my own fault because I was shy and retiring. I never felt that the school took any interest in my receiving a position after I had received my training." That is one of a few replies received, as I said before. Most to whom questionnaires were sent either left this section entirely blank or wrote in the word "none" after this question. The same is true with regard to (b), refused to accept, and there were no worthwhile replies to this section. The implication would be either that students attending school did not know that they were receiving the best sort of training that best fitted them for what they expected to do or actually did when they entered the institution.

We always try to read only what we can in a questionnaire. The general fault to our mind with questionnaires is that generally the answers to the questions are implied in the questions asked.

In general the replies showed that the students had not really been at any time thinking of the things that were lacking in the course of study they took in the College, but when they found that they really wanted work of a kind not offered in the College when they graduated, they either came back and continued their educational training in this institution or attended another institution for further training generally along definite lines.





# ANALYSIS OF THE COURSE OF STUDY

Year Book 1917-1918

By S. M. HADDEN

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In an analytical survey of the Course of Study we must, of course assume

I. That a Teachers College is a professional institution and we are therefore correct in assuming that any course of study offered is for a definite purpose, occupying a definite place in the curricula and included because of a need for that particular type of course.

II. We think we are also correct in assuming that since all of the courses now outlined lead to training of teachers for only two years our school is fundamentally only preparing teachers for elementary schools. In other words, we have not as yet developed a four-year course of study that will prepare teachers for high school service.

Keeping in mind these two statements we wish to discuss the courses that seem to prepare for specific types of teaching.

## General Course.

Our catalogue statement regarding the General Course is as follows: "A two-year course planned for those students who expect to become general grade teachers or who wish to become specialists in some subject in which they expect to major in the third and fourth years of their College Course. A student who expects to become a high school teacher of some one actual subject such as History, English, Mathematics, etc., should take the first two years in this group."

We can, then, expect in our analytical survey to find a very interesting course since it assumes to prepare teachers for almost all lines of work that are constantly offered in most elementary and high schools.

Since the core subjects have been discussed in another section of this report we are including in this report only the required subjects of this course.

## III. Subjects of the General Course.

1. Child Hygiene. This course, in our opinion, seems to be very valuable because it deals with the health of children showing the teachers what should be done for the arrangement of the room and what to look for in the care of each individual child where corrections seem to be needed.
2. Education. (Selected) There are fifteen possible courses offered in Junior College according to directions given in the catalog. A student, then, we assume, may fulfill this requirement by taking any one of this group of fifteen courses. They are as varied as courses in Education could be, from the History of Ancient Education to the study of the most modern groups in modern Education. This indefinite way of selecting a course in Education to fill this re-

quirement can lead to only one conclusion from the standpoint of the Survey Committee, namely, that since no definite type of course is outlined we can assume that no course in Education is really necessary for the complete training of an individual who is taking this General Course.

This course then is very faulty in this particular and should be corrected. We would suggest that if some Education course is needed that such a course should be outlined definitely. It should state the needs for such a course and then outline in detail showing the material of this course that would cover that requirement.

3. General Science or Nature Study. These terms as suggested in the curriculum are so indefinite from the standpoint of the curriculum that they need a very definite analysis.
  - A. If we are to assume that General Science is selected by the individual student then Nature Study is not essential, or if Nature Study is selected by the student then General Science is not essential. We must assume, then, that Nature Study and General Science in their development lead to the same general conclusion, or point to the same road in education. As far as I am able to interpret these two subjects this is not true. The Nature Study work is for the most part seasonal as outlined and is offered during the times of the year when life is best studied, namely during the spring and summer quarters. There is, however, another Nature Study course that, in my opinion, *would be more valuable*. A course dealing with the teaching of Nature Study. The Nature Study course that I feel is the most valuable is Nature Study 2, Page 71, 1917-18 Year Book.
  - B. General Science. This course we find listed as General Science 4, Page 72 of the same Year Book. This course deals with general scientific phenomena. Comparing the material of this course with the material of the Nature Study course we do not see how it is possible for any one to assume that the taking of one of these courses equally well fills the requirement of the other. We are safe, then, in assuming that either both of these courses are necessary or that neither is essential to the complete development of a course of study of this kind.

We feel that this section of the course should be very much more carefully outlined in order that there might be a complete understanding of what is expected and why such a course if offered.

4. Observation, Methods and Teaching. This group deals with the application of the fundamental notions gathered from the historical setting or history of the subjects that are taught in the elementary school and I think we will all agree should be a part of the course in College.
5. We have, beside these, four courses that are special to deal with the teaching of Geography, Arithmetic, History and Reading. We assume that if these courses are to be given they should deal with the history of teaching of these subjects and should not be a rehash of the material the student has been studying for the past eight or ten years in the public school.

The Geography, judging entirely from the catalog material, seems to be only a general Geography course that we would call a rehash.

The Arithmetic, in our opinion, is somewhat more fully and definitely outlined and is quite a good deal better.

The History is the best outlined course in this group and, in my opinion, touches the point.

The Teaching of Reading course as outlined in no way touches the historic phase of reading and in the opinion of the committee misses the mark.

We now have to deal with the reason why this material was selected as part of the curriculum of the General Course of study in preference to many other groups of material that might have, in the opinion of many members of the faculty, just as well have been selected. In other words, it seems to me that there should have been a definite reason given why these four subjects were selected above all of the other rich fields in education. This would clear this entire field in the minds of not only the members of the faculty but would also outline for the people in general a definite reason why such courses occupy this distinguished place.

#### IV. Special Groups.

##### 1. Kindergarten and Primary Grades Course.

We plan to discuss these two groups together since we can assume that because the kindergarten child is advanced into the first grade that there will be many like features that will persist through the two courses.

###### A. Educational Psychology.

Deals with the significance, prevention and detection of sensory defects, enlarged adenoids.

Treats the following topics: malnutrition; faulty posture and deformities and hygiene of the mouth.

If this is a good course for a Kindergarten teacher why is it not equally valuable for a Primary, Intermediate and Grammar or Country school teacher?

The course seems to have very important elements in it that were overlooked by all but the Kindergarten department. Who was responsible for this course in the groups dealing with public school problems. Kindergarten group? Who was responsible for its being left out in the other groups named?

It seems to your Committee that all grade teachers deal with the problem of child health and therefore if such a course is needed in the Kindergarten group it should also be incorporated in all of the other special groups.

- B. Training School 33 is a course offered for Primary and Kindergarten teachers and is listed in both courses.
- C. Training School 15 seems to be a very important course since it is listed in both groups but is not numbered or

described in the Year Book. The Kindergarten course allows as a substitute Training School 31 but the Primary group requires Training School 15. Again, 15 is scheduled as a 2-hour course in one place and as a 3-hour course in the other.

- D. Training School 5 or 6. Either may be taken in the Kindergarten group and both for the Primary group. Six seems to logically follow five in this plan. All feel, if the courses have been carefully selected, this is a good arrangement.
- E. Training School 32 is offered in both groups as a 2 hour course in the Primary and a 4 hour course in the Kindergarten.
- F. Training School 37 is purely a Kindergarten subject.
- G. Music 3 is planned especially for Kindergarten and Primary grade teachers but only required in the Kindergarten group. Why is this needed in one? Why eliminated from the other group?
- H. Physical Education 6. Singing and Rhythmic Play for children is in the Kindergarten group only. Why not in the Primary group?
- I. Physical Education 7. Folk Dancing. Offered in both groups.
- J. Art. I. Elementary Drawing and Design offered in both groups.
- K. Training School 1. Offered in the Primary group. Why not in the Kindergarten group?
- L. Training School 3. Elementary school supervision might best be as far as we know now in the Primary course.
- M. Art 13. Blackboard Drawing offered in the Primary group only.
- N. Zoology 5. Bird study offered only in the Primary Group. Why not in the Kindergarten group?
- O. English 3. Story Telling. Why not given in the Kindergarten group as well as in the Primary Group?

A rather hurried analysis of these two groups leads us to feel that

1. There has been very little association and discussion of the needs of student teachers in these two departments giving them a scientific back ground from which to begin to plan a course of study.
2. Where required courses are not listed or outlined in the catalog some very poor course making is illustrated.
3. The planning of these courses shows very careless and loose technic in every way.

2. Intermediate and Grammar Grade Course.

- A. Training School 1, 7, 8, 9 as listed and recommended fulfill necessary requirements in the opinion of your Committee.
- B. Training School 11 is not in the catalog so listed. Training School 111 may be the course, but it is listed as Senior College course.
- C. Psychology 4. The Psychology of the Elementary School subjects should be a very profitable course for this group and as far as I can see for any group in the College. But who would be able to give such a course?
- D. Physical Education Courses 5 and 7 are listed but 8 and 12 are not in the catalog.
- E. Select 12 hours from the following: Geography 12; Reading 9; Mathematics 8; History 13; Nature Study, Agriculture or Zoology 5; Civics; Music 2; Public Speaking or Story Telling 13.

While a number of these courses belong to the required group as outlined in the General Course we can expect if there is to be any logical scheme in the making of a course of study that these same courses will appear in a course that has to furnish the same type of teacher, but we can see no reason for arranging this group in such a way that it is possible to take ten hours of this work outside of this required group of the General Course.

3. County Schools Course.

This course exhibits some very interesting points that we hope to bring out in our discussion.

- A. Education 25. Rural School Curriculum and the Community seems to be a very interesting course but one would feel that the problems discussed largely belong to advanced or mature people.
- B. Education 6. County School Methods. A very interesting course is here outlined.
- C. The next group includes Nature Study, Teaching of Geography, Arithmetic, History and Reading, as outlined in the General Course.
- D. Agriculture 4 hours. No hint as to the Agriculture that might be needed and no plan given us that we might select the proper course.
- E. Public Hygiene 5. Why public hygiene in place of individual hygiene? Would not public hygiene be more important in congested districts? Are the parents of children in the country better able to direct their personal hygiene than those in the city?
- F. Elementary Woodwork and Household Science and Art are just a slight suggestion of what might be done for the rural schools along these lines. Courses should be more definitely defined and arranged to function in a definite way in rural life.

What is the use? We could go on analyzing and suggesting changes and corrections in the entire group of special courses but in the end

we would possibly be no further along than we now are. The only, to my mind, possible method of solution of the problem is to find out the possible community needs from the standpoint of individuals and individuals as members of a social group. The demands in general vary in various communities of the United States. We can not expect agricultural problems in Colorado to be similar to agricultural conditions, in many ways, in some of our southern states.

Many of our courses of study seem to be organized fairly well from the standpoint of an individual as a member of a social group, while no attention has been paid to individuals who are members of that social group and are going to function as valuable members of society; that is, those who help in the struggle for the uplift of mankind; they are going to be just self-supporting or a drag and a load for those who are trying to help make the world a better place in which to live.

Individual needs and demands are really very important in the organization of courses of study for communities. If the individual and the individual as a member of society are important viewpoints in the organization of courses of study for communities it should be doubly true regarding the courses of study that are outlined to prepare teachers to teach under somewhat special conditions. Often individual feelings and likes—I mean from the standpoint of the teachers in charge—are responsible for much of the material in the course. Talking over a Smith-Hughes course of study with a representative of the department at Washington, the representative suggested that history was needed in the course. To my interrogation "why?" she could only say, "Because I like it." I am inclined to think that much of the materials of courses of study are worked out in some similar sort of way.

We need to find out, not to guess or depend on feelings in our solution of problem needs in Teachers College, especially since they reflect on down through our public schools. Only when people in educational directive positions realize that organized and planned doing is as essential in the lives of children and teachers of children as so called academic instruction will we begin to see light in the organization of public school and teachers training courses of study.

# DEPARTMENTAL ORGANIZATION OF SPECIAL SUBJECTS

By *S. M. HADDEN*

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What is the effect of departmental organization based wholly on subject matter?

The College recognizes value of organization of a department or departments that have a technique peculiar to themselves. It does not allow this fact to obscure the less obvious but (for the purpose of education) more significant fact that all the fields classed as special, meaning possibly, those that have some vocational viewpoint, are:

1. Based upon certain fundamental arts and sciences to an extent rarely appreciated by the uninitiated.
2. Reach their ends by similar methods of work; and
3. Are to an ever increasing degree joined in practice, so that they are best acquired in an organization which keeps always in view their connections, displays their related applications as an organic whole never detached from community needs, but admit of varied emphasis according to community demands—all contributing where they can to the field of public education in so far as they relate to the fundamental activities of communities.

All special subjects must take into account two viewpoints or centers of interest:

1. (a) The schools in which they attempt to comply with the educational demands of an organized educational system; (b) the public demands in that they try to help the student to meet practical demands as they appear.
2. In many of our schools there is a definite demand for teachers who can teach two, three, and sometimes more of these special lines.

There should be within the institution as a whole a further unit capable of making a varied emphasis according to school, which means community needs. Otherwise there is a certain failure to give maximum service.

Any organization should look only to increased efficiency in the graduates of any group of related subjects. It in no way narrows the scope of any teachers in coordinate fields. What such an organization does is to insure that each shall have the full advantage of the constant reminder of the relation of this special subject to other subjects. At times we may feel that no relations exist, but this is because each special subject has, as it were, tried to go it alone and has never tried to find correlated and enriching factors in other so-called special subjects.

In other words, present organization of special subjects is an evolution from our experiences in an effort to meet the needs of the times most effectively. It is a product of our school experiences, with the relative inefficiency of the specialized lines, isolated from related lines

of work. It is not far from the old cry "Art for Art's sake," an impossible and perfectly ridiculous conclusion in this day of modern art applications. It is only, when the constructive features of other lines of work enter, that the art, or any other special field of work reaches its greatest influence for good.

Organization of Vocational work, or as some are pleased to call the field, special subjects, is not a matter of chance or opinion. It is not haphazard or accidental, but is a deliberately planned and calculated *adjustment* to the present educational situation. Briefly here we will state the underlying principles upon which it rests.

As a Teachers College has the function of training teachers for public schools it has inevitably the function of leadership in the educational systems. Among the duties implied in this function is that of analyzing the educational situation, determining the points of greatest weakness, needs and the like, and then in response to these, organizing its courses in such a way as to keep the public schools abreast of the best thought and practices of the time. One of the standing criticisms of the public school system is that it is not practical, that it is detached from life; that it does not fit pupils for the problems they must face. Modern educators freely admit the justice of this criticism, which has come mostly from laymen in business, on the farm or in the professions. Modern education has recognized in many ways that a part of this detachment of the schools from life conditions has been due to a failure to recognize the relationship of the various lines of school activities to each other. When each line of activity has tended to develop as an end in itself the tendency is to forget that it exists only for the improvement of life.

What is called the modern functional view of the school subjects definitely insists upon the full recognition of the interrelations of these school subjects.

The history of the teaching of special subjects would cast some interesting light upon the development of the interrelation of subjects in these fields. Witness the introduction of drawing in the schools of Massachusetts, the refraction from its original purpose when it became Fine Art or Aesthetic Art. "Art for Art's sake" was the slogan until the rise of the idea of Industrial Arts courses, in which eventually the two related fields were unified and applied to various phases of industry.

Without the refining influences of other related subjects, without the broadening of the subject's educational horizon with related materials, our special subjects courses become mere instruments of formal discipline. All of the illustrations we could enumerate, if the space permitted, would illustrate the tendency toward aloofness and a corresponding lack of service when they are separated in the schools. Nothing has, historically, even approached its maximum service until it was co-ordinated with its companion activities.

It is a matter of common knowledge that there is not and never was, a large growth or extension of any special line until there was a unifying organization. It is highly desirable then that there be a unifying force in related special subjects. At first thought special subjects that seem to be far removed from each other after a careful analysis become related in a very interesting way.

There is a two fold gain in efficiency in such an organization. It insures that each expert in the fields shall have the full stimulus of constant touch with experts, working towards the same large ends, applying different technic but employing the same *methods* of work. In a word, it insures a functional or utilitarian view of subject matter and course.



## SUPERVISION COMPARATIVE

By S. M. HADDEN

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V. Does the supervision of these special subjects in the Training School by the teachers of them result in better courses for normal school students than these students get in so called regular subjects? (Compare the serviceability of the courses in music and arithmetic.)

This is rather an interesting question, but unfortunately the implication regarding work in Arithmetic and Music is bad. It seems to be assumed that Arithmetic is an essential for all, and that Music is one of those fringe subjects that may or may not occupy a place in the development of an individual's needed educational experiences, depending largely on the amount of time that the school system may have to give to this type of training. In general, it is assumed that Arithmetic, years of it, is necessary in the training of an individual. That an individual can not be an efficient member of society unless he has devoted a large amount of time to this type of work is the assumption.

This premise in general seems to be false; the type of training given in Arithmetic by the ordinary grade teacher is far from the mark, as far as the arithmetics from which they get their materials.

In the first place, the new book on Arithmetic is generally a rehash of the old one and has no great value as a guide to our training of the children in Mathematics since the problems in general are not of a type to explain the value of mathematical work in public or private citizenship activities. As a rule they are never taught the simple problems of keeping accounts, buying, selling, etc. They do not know how to deposit or draw out money from a bank. They know little about such things as exchange, safe methods of carrying money or the equivalent of money when traveling, safety deposit, counting change, etc. About nine-tenths of students with whom I have carried on the experiment are not able to return the proper amount of change when I make a purchase, say of two dollars and thirty-seven cents and want my change. Generally they take a piece of paper and make the computations. This, if investigations were made, I am quite sure would also be true regarding most of the fairly experienced teachers out in real teaching life. They do not know the fundamentals necessary in mathematics where they touch *real life*.

The modern movement seems to be to make the mathematics real, make it touch all the phases of actual life. We believe with the tests, so called in Arithmetic, with the poorly selected materials of the grade text book, with a teacher that is ordinarily just a general teacher, that there is no field of public school education where the eight years of arithmetic is taught, and this suggestion is general, with any educational viewpoint that looks to a better understanding of simple business problems that should be every day experiences for every boy and girl.

We assume that students must dig through the so-called arithmetic course in the grade school under inexperienced teachers as far as applications of the underlying principles are concerned to real life. We assume that an individual can do almost nothing in after life of an advanced nature unless he take a further course in algebra and geometry, even if investigations have largely shown that practically all of

the students never use algebra outside of the schoolroom and that the demonstration of the various perfectly obvious problems in geometry are learned as we learn a poem.

The teachers who are teaching in our elementary, high schools, and higher institutions of learning know almost nothing of the mathematical computing tables, nothing of the precision instruments and their applications to life problems. They hardly know the name of simple measuring tools and instruments and the short cuts they make possible in actual life. For example the slide rule is an instrument in education generally only associated with engineering schools, and I suppose I am putting it high when I say one out of one hundred teachers in elementary schools who teach arithmetic know anything at all about such a tool, and a little higher proportion among high school and College professors. Still records of people in occupations show that men who have only completed the third grade are earning their living by using slide rules.

In general, then, we are not inclined to think that the teaching of arithmetic in our elementary schools is anything of which we should be particularly proud.

Our teachers of arithmetic, we might say in a general way, while they know mathematics as it is taught they do not know the application of mathematical principles to every-day needs. They do not associate with the people who, in public life activities, are accustomed to use mathematical formula and data evolved from mathematical formula. They do not know the tools and implements that apply mathematical principles they have been accustomed to teach as abstract things.

Arithmetic, so called (we prefer the word mathematics for our work with children), has in our schools become a thing to learn without any of the uplifting elements that come with its association with modern mathematical equipment that is perfectly clear and simple to even the very young child.

If we would eliminate the almost impossible applications found in all arithmetics and when possible make our arithmetic bubble with new life by bringing in live problems it would be in a class with the music taught by our special teachers of music.

A word now about our music teachers. In general they are musicians being able to do creditable work in some field of music. Only once in my career have I known of a piano teacher who could not play on a piano at all. Of course her teaching days were short and she was not a success in any phase of the teaching.

Again they are interested in the musical work of the community, have their pupils interested in musical organizations, conduct courses, organize choral societies, conduct orchestras, bring into the community festivals, performers, influence the community for better music in churches and various other organizations. They teach the children about great music, give them sufficient technic so they can understand and appreciate great music, which can be done without a great technical knowledge. They pick out from the musical materials of the ages that which has endured and is worth while, and give it to the children. The children are not held down to the technic of music but are allowed to spread their wings and try to appreciate and perform great worth while musical numbers. The technic in music is as great and varied as in mathematics but the special music teacher teaches applied music just as the mathematics teacher should teach applied mathematics and should be a specialist in such applied phases if we want real worth-while arithmetic for our children. In our own Training School our music is

very superior to music in public schools and also our mathematics for children in our grade school is very superior to mathematics work in public schools.

This is no reflection on individuals, for in general our arithmetic teachers have a hundred and one other duties, and arithmetic is only an incident in the day's work. In the case of the special music teacher, music and better music is his or her entire aim at all times. The one is a specialist and the other a general teacher, and we are rapidly reaching the point where we need no general teachers in our public schools.

COLORADO STATE  
TEACHERS COLLEGE  
Greeley, Colo.



# Colorado State Teachers College

*Bulletin*

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## YEAR BOOK AND CATALOG

1921-1922



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## **Certificates of High School Graduation**

Students enrolling for the first time in the College and those whose admission to the College has not yet been formally arranged must show a certificate of graduation from an acceptable high school. This certificate must cover at least fifteen units.

Students not high school graduates may be admitted conditionally upon presenting a certificate showing the completion of fourteen units. This condition must be removed during the first year by taking one unit of work in the Industrial High School.

**SPECIAL STUDENTS**—See page 14 for a statement concerning admission as unclassified students.

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*See the College Calendar inside of the back cover*

# Announcements and Catalog *of* Courses

FOR THE YEAR 1921-1922

*Catalog*  
of the Faculty for 1921-1922  
and of Students for 1919-1920  
AND  
*Announcement of Courses*  
*for 1921-1922*



PUBLISHED SEPTEMBER 1, 1921

STATE TEACHERS COLLEGE  
Greeley, Colorado

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*Associate Professor of Household Science*

Graduate Illinois State Normal School; A.B., University of Illinois; Student, Columbia University; Instructor High School, LeRoy, Illinois; Instructor High School, Saybrook, Illinois; Instructor in High School, Valley City, North Dakota; Head Home Economics Department, Normal University, East Las Vegas, New Mexico.

FRANK LEE WRIGHT

*Professor of Education*

A.B., Kansas State Normal School; A.M., University of Wisconsin; Director Normal Training Work, Emporia High School; Superintendent of Schools, Bucklin, Kansas; Assistant in Education, University of Wisconsin.

M. EVA WRIGHT

*Piano and Pipe Organ*

Student under the Artists and Masters, W. H. Sherwood, of Chicago; Samuel Fabian, of Washington, D. C.; Alfred G. Robyn, of St. Louis; Chas. Borjes, Interpreter of Spohr and Pupil of Zeiss, of New York; Sig. Mattioli, and W. H. Jones; Student, College of Music of Cincinnati; Organist and Director Old Bruton Parish Church, Williamsburg, Virginia; twelve years' experience as Teacher in William Woods College, Bollenger Conservatory, Alfred University and Norfolk, Virginia.

DAVID L. ZYVE

*Professor of Physics*

B.A., Gymnasium of Warsaw; M.S., University of Grenoble; Student University of Warsaw; Higher Diploma, University of Paris; Graduate Student, Columbia University; instructor of Physics, The Veltin School, New York; professor of Physics, College of Normandy, France; Professor of Physics, Cours St. Louis, Paris, France; Professor of Physics, Ecole Marraud, France; Chemist with the British Commission during the Great War.

## Summer Quarter, 1921

EDWARD HOWARD GRIGGS, A.M., L.H.D., New York City.

EDWARD CAREY HAYES, Ph.D., Professor of Sociology, University of Illinois.

LINCOLN HULLEY, Ph.D., President Stetson University, DeLand, Florida.

EDWARD A. STEINER, Ph.D., Professor of Sociology, Grinnell College, Iowa.

CHARLES E. CHADSEY, Ph.D., Dean School of Education, University of Illinois, Urbana, Illinois.

HARRY S. GRUVER, A.M., Superintendent of Schools, Worcester, Mass.

EDWARD L. THORNDIKE, Ph.D., Head of the Department of Educational Psychology, Teachers College, Columbia University, New York.

DANIEL STARCH, Ph.D., Department of Psychology, University of Wisconsin.

ERNEST HORN, Ph.D., Head Dept. of Experimental Education, Iowa State University, Iowa City, Iowa.

ALFRED L. HALL-QUEST, A.M., Professor of Secondary Education, College for Teachers, University of Cincinnati.

JESSE H. NEWLON, Superintendent of Schools, Denver, Colorado.

FRANK B. DYER, LL.D., D.Litt., Formerly Superintendent of Schools, Boston, Mass., and Cincinnati, Ohio.

FREDERICK E. PIERCE, Ph.D., Professor of English, Yale University, New Haven, Conn.

WILLIAM F. SNOW, B.A., M.A., M.D., New York City, Lectures on Hygiene.

O. T. CORSON, A.M., LL.D., Oxford, Ohio. Gen. Lectures on Education, Theory and Practice.

MISS CLYDE E. FOSTER, Special Teacher of Public School Music, Ypsilanti, Mich.

MISS LOUISE TUTCHER, Primary Methods, Lawrence, Kans.

MISS ETHEL SALISBURY, Specialist in Kindergarten, Public Schools, Berkeley, California.

A. M. HINDS, Specialist in Penmanship, Louisville, Kentucky.



## Faculty Committees

The President of the College is ex-officio a member of each committee.

### Committee on Advanced Standing

The Dean of the College, the Principal of the High School, Mr. Smith, Mr. Bowers.

### Alumni Committee

Mrs. Weibking, Chairman; Mr. Bell, Mr. Foulk, Miss Kendel, Mr. Hadden, Mr. Carter, Secretary.

### Arts-Crafts Committee

Miss Baker, Miss Lowe, Mr. Schaefer.

### Committee on Assembly

Mr. Barker, Mr. Smith, Miss Baker, Mrs. Gilpin-Brown, Mr. Armentrout.

### Committee on Class Officers

First Year: Miss Roudebush. Second Year: Miss Wirt. Third Year: Mrs. Weibking. Fourth Year: Miss Baker. Fifth Year: Miss Hawes.

### Committee on Courses of Study

Mr. Wright, Mr. Heilman, Mr. Miller, Mr. Cross, Mr. Smith, Mr. Barker, Mr. Armentrout, Mr. McCracken.

### Committee on Entrance

The Principal of the High School, the Dean of the College, Mr. Heilman.

### Estes Park Outing Committee

Mr. Bell, Miss Baker, Mr. Bishop, Mr. Adams, Mr. Hargrove.

### Committee on Extension Service

Mr. Bell, Mr. McCracken, Mr. Armentrout, Mr. Cross, Mr. Barker, Mr. Burrows.

### Faculty Club Committee

Mr. Armentrout, Mrs. Gilpin-Brown, Mr. McCracken, Miss Dilling, Miss Peake, Mrs. Weibking, Mr. Hadden.

### Federal Aid Committee

Mr. McCracken, Mr. Hargrove, Mr. Cross, Miss Roudebush, Mr. Hadden, Mr. Long, Mr. Burrows.

### Committee on Lyceum

Mr. Finley, Mr. Colvin, Mr. Hansen, Mr. Hill, Mr. Camfield, Mr. Dodds, Mr. Cremeans, Mr. Culbertson, Secretary.

### Committee on Men's Welfare

Mr. Hadden, Mr. Barker, Mr. Finley, Mr. Bishop, Mr. Mallory.

### Museum Committee

Mr. Jean, Mr. Hadden.

**Press Bureau**

Mr. Barker, Mr. Bishop, Mr. Burrows, Mr. Bowers, Mr. Carter.

**Committee on Physical Education**

Mr. Long, Mrs. Gilpin-Brown, Miss Keyes, Mrs. Sibley, Mr. Malloy, Mr. Search, Mr. Wright, Mr. Barker.

**Committee on Public Exercises**

Miss Tobey, Miss Kendel, Mr. Kendel, Miss Welsh, Miss Wright, Mr. DuPoncet, Miss Keyes, Miss McLane, Miss Ammerman, Mr. Hunt, Miss Lyford.

**Research Committee**

Mr. Heilman, Mr. Finley, Mr. Smith.

**Committee on School Calendar**

Miss Tobey, Mrs. Gilpin-Brown, Mr. Kendel, President of Student Association.

**Committee on Student Programs**

Mr. Heilman, Mr. Hargrove.

**Committee on Student Receptions**

Mr. Kendel, Miss Roudebush, Mrs. Kendel, Miss Baker.

**Committee on Scholarships**

Mr. Brown, Mr. Bell, Miss Kendel.

**Teachers Bureau**

Director of the Training School, Dean of the College, Mr. Bell, Mr. Brown, Mr. Culbertson, Secretary.

**Committee on Text Books**

Librarian, Dean of the College, Mr. Miller, Mr. Armentrout, Manager of Bookroom.

**Committee on Women's Welfare**

Dean of Women, Miss Wilson, Mrs. Sibley, Miss Dilling, Miss Peake.

**Committee on Women's Buildings**

Dean of Women, Mr. Kendel, Miss Knott.

**Committee on Y. M. C. A.**

Mr. Finley, Mr. Wright, Mr. Bishop.

**Committee on Y. W. C. A.**

Miss Wilson, Mrs. Gilpin-Brown, Miss Dilling, Miss Hawes.

**Committee on Visual Education**

Mr. Zyve, Mr. Long, Mr. Barker, Mr. Jean.

**Committee on Survey**

Mr. Heilman, Mr. Colvin, Mr. Miller, Mr. Wright, Mr. Hadden, Mr. Carter, Mr. Finley, Mr. Cross, Mr. McCracken.

**Committee on Boy Scout Work**

Mr. Long, Mr. Hadden, Mr. Armentrout, Mr. Cross.

**Committee on Special Funds**

Mr. Miller, Mr. Wright, Mr. Cross, Mr. McCracken, Mr. Brown.

## Colorado State Teachers College

**Location**—Colorado State Teachers College is located at Greeley, in Weld County, Colorado, on the Union Pacific and the Colorado & Southern Railways, fifty-two miles north of Denver. This city is in the valley of the Cache la Poudre River, one of the richest agricultural portions of the state. The altitude is 4567 feet above the sea level. The streets are lined with trees, forming beautiful avenues. The elevation and distance from the mountains render the climate mild and healthful. The city is one of Christian homes and contains churches of all the leading denominations. There are 12,000 inhabitants.

**Function**—The purpose of the College is to train teachers for public school service. Being supported by public taxation of all the property of the State of Colorado, the College aims first to prepare teachers for all the kinds of public schools maintained within the State of Colorado. This includes rural schools, kindergartens, primary, intermediate grade, upper grade, junior high schools, and high schools. The College also accepts the responsibility of training supervisors for rural schools, principals, superintendents, teachers of home economics, industrial arts, fine and applied arts, critic teachers, teachers of defective and atypical children, teachers for adult night schools, etc.

While the College is supported for the training of Colorado teachers, it welcomes students from any state or country and sends its teachers anywhere that they may be called. Students come to Colorado State Teachers College from many states and its graduates go in large numbers into the neighboring states and in smaller numbers into distant states and countries.

The College recognizes as its plain duty and accepts as its function the training of students to become teachers in every type of school at present supported by the state, to meet actually all the demands of the best in the public school system of the present, to forecast those improvements and reforms which the evolution of public systems of education is to bring about in the immediate future, and to train teachers to be ready to serve in and direct the new schools which are in the process of being evolved.

**Admission**—Admission to the College is granted to those who present a certificate of graduation showing the completion of fifteen or more units in an acceptable high school. This certificate must be presented at the time of matriculation in the College.

Mature students, not high school graduates, may be assigned to the Ungraded School for adults. As soon as they have completed the equivalent of fifteen high school units, or shown the learning power which such completion usually gives and proved intelligence of a degree high enough to warrant admission to College, they may be granted a high school certificate and admitted to the College.

**Conditional Admission**—An applicant who is twenty years old or over, who is not a high school graduate, but who is credited with fourteen high school units, may be admitted to the College upon presenting a transcript from a reputable high school, showing the completion of fourteen units. This admission is conditioned. Such students are limited to a maximum program of twelve hours per quarter and must make up the deficient high school unit in the Industrial High School during the student's first year in the College. The student could not be enrolled for the second year until the entrance condition had been removed.

**Unclassified Students**—Any student who can meet the entrance requirements may enroll in the College and take any subjects he may elect without taking the prescribed subjects in any of the outlined courses of study. This provision makes it possible for students whose interests are in other types of work than teaching to live at home and get one year or more of general college work before going away to college. Such general academic work is accepted by the leading colleges of the country and applied upon the various courses which they offer.

**Advanced Standing**—Students who come to the College after having done work in another college, normal school, or university, will be granted advanced standing for all such work which is of college grade, provided that the college or normal school in question has required high school graduation as a condition for admission. Those who receive advanced standing are required to take here all the prescribed subjects in the course they select, unless these prescribed subjects or their substantial equivalents have been taken already in the normal school or college from which the students come. Only the heads of the departments involved have the power to excuse students from taking these prescribed subjects. No advanced standing is granted for additional units above the usual sixteen earned in the four-year high school course. If first or second year college subjects have been studied in a fifth year in a high school, such credit as these subjects deserve will be allowed.

After September 1, 1921, credit will be given only for regular college work taken in institutions regularly recognized as standard colleges or colleges maintained primarily for the training of teachers. On and after that date Colorado State Teachers College will discontinue giving college credit for teaching experience, penmanship certificates, music certificates, drawing certificates, private study, private lessons of any kind, or work in business colleges, conservatories of music, dramatic schools, county institutes, reading circles, or for any other kind of work done in an institution other than one ranking as a standard normal school college, teachers college or university.

**The Unit of College Credit**—All credit toward graduation is calculated in **quarter-hours**. The term **quarter-hour** means a subject given one day a week through a quarter of a year, approximately twelve weeks. Most of the college courses call for four recitations a week. These are called four-hour courses. A student usually selects sixteen quarter-hours, the equivalent of four courses, each meeting four times a week, as his regular work.

Forty-eight quarter-hours are a student's regular work for the usual school year of nine months, or three quarters.

**Maximum and Minimum Hours of Credit**—A student registers usually for fifteen or sixteen hours each quarter. If the work is to count as resident work, the student must carry at least twelve quarter-hours.

A student who wishes to take a larger program than sixteen hours must take one of the standard mental tests. Following the test, the Student Program Committee will grant the request to carry seventeen or eighteen hours, if the student's score is high enough to warrant that amount. In no case will the committee allow more than eighteen hours.

**Minimum Residence Requirement**—The College does not grant any certificate or diploma for less than three full quarters of resident study, during which time the student must have earned at least **forty-eight** quarter hours of credit. Students who have already taken the two-year diploma must spend in residence at least one quarter out of each year required for the three-year or four-year courses. Extension group classes, conducted by members of the College faculty, are considered as resident work and may be counted as such to the extent of one quarter out of each three resident quarters required for the student's graduation.

**The Grading System**—A student who takes a four-hour course may earn a little more than four hours of credit by doing unusually good work. On the other hand, less than four hours will be granted for work of poorer quality than a reasonable expectation. The system is as follows:

The mark AA for a course gives 20 per cent above the number of hours indicated as normal for the course.

- A gives 10 per cent above normal.
- B gives the normal credit.
- C gives 10 per cent below normal.
- D gives 20 per cent below normal.
- F indicates failure.

For example:

4B on a student's permanent record means that a student has taken a four-hour course and made a normal credit in it.

4AA would indicate most excellent work in a four-hour course and would carry 4.8 hours credit.

- 4A gives 4.4 hours credit on a four-hour course.
- 4B gives 4 hours credit on a four-hour course.
- 4C gives 3.6 hours credit on a four-hour course.
- 4D gives 3.2 hours credit on a four-hour course.

These marks, both figure and letter, go on the student's permanent record for later reference to indicate the quality of the work done.

**Late Registration**—Except by special permission of the Dean of the College, no student, after his first quarter of school work during any given school year, who registers after the first day of the quarter shall under any consideration be allowed to take more than sixteen hours of work, and no additional credit for A's or AA's will be allowed such student for the work of the quarter in which he has registered late. If the student is more than three days late the total number of hours on his program will be reduced in proportion to the time lost.

Any student absent from class on the last day of the quarter will have his quarter report for that class turned in as incomplete unless he has a written permit from the President or Dean to leave before the close of the quarter. No teacher has authority to excuse a student from one of his courses before the close of the quarter.

**The School Year**—The school year is divided into four quarters of approximately twelve weeks each. These are:

1. The Fall Quarter.
2. The Winter Quarter.
3. The Spring Quarter.
4. The Summer Quarter.

This division of the year is especially well suited to a teachers college, for it gives teachers in active service an opportunity equal to any of securing a complete education while actually teaching.

**Shortening the College Course**—The Quarter Plan, the Extension Work, and the grading system make it possible for students who are physically strong enough to stay in school with only short vacations to complete a college course in a shorter time than that usually required in the colleges. Ninety-six quarter-hours constitute the usual two-year college course, and one hundred and ninety-two quarter-hours make up the four-year course required for the A.B. degree. By carrying an average of seventeen hours a quarter and making an average grade of "A,"

a strong student can earn 18.7 hours each quarter. At this rate he could complete the course for a two-year life certificate in five quarters, from the middle of June of one year to the end of August of the next. Or such a student could complete the course for the A.B. degree in two and a half years—ten quarters. By doing some work in Extension courses through the school year while teaching, it is possible to reduce the time still further.

**Practice Teaching**—Teachers who have had less than two years of college training take their practice teaching in the Elementary School. Those who have had two years of college training may choose between the Elementary School and the High School according to their own personal needs and interests. Students are required to do two quarters of practice teaching before being granted the two-year diploma and life certificate. Students in the third and fourth years are expected to take one quarter of practice teaching in each year. Ed. 105 takes the place of one quarter of practice teaching for those who are to teach in high schools.

**The State Board of Examiners**—Every student before being granted a life certificate must be approved by the State Board of Examiners.

### THE SUMMER QUARTER.

The Summer Quarter of 1922 will in general follow the plans begun in 1918. The quarter will be but a little shorter in actual time than the other three quarters of the college year. Each instructor will include all the material in his courses that he regularly uses and will give full time to each topic. A student will carry sixteen hours of work the same as in other quarters.

The policy of bringing in from other institutions, not only lecturers, but class-room teachers as well will be continued and extended. Twenty lecturers and teachers from other educational institutions will be in Greeley to give the best they have to the summer school students.

The Summer School of Colorado State Teachers College began its work in 1905 with a small faculty group and about two hundred students. In 1910 practically the whole faculty, exclusive of the training school and high school teachers, remained to teach through the six weeks of the summer school. In that year there were 443 students. In 1918 the summer term was placed upon an academic level with the other quarters of the college year. The term was lengthened to a quarter and the credits were made equal in value with those of the college year. With this step the college entered upon the four-quarter year. Today the teachers, not only of Colorado, but of neighboring and distant states as well, recognize the fact that the College is doing a large service to the profession of teaching by making it possible for active teachers to keep up with the development of modern educational practice and to continue their professional education without losing time from their teaching. Two thousand teachers each year avail themselves of the opportunity.

Admission to the College at other times is limited to those who have fifteen units of high school work. The strict observance of this rule during the summer would make it impossible for hundreds of experienced teachers, who are not high school graduates, to get into touch with all the new movements in education which the College faculty and visiting instructors are presenting to the summer quarter students. The College opens the summer classes to all who may profit by the instruction offered.

Any student twenty years of age or over may be enrolled in Colorado State Teachers College for the Summer Quarter without reference to meeting the College requirement for admission. The College believes it can render a valuable service to the teachers of Colorado and surrounding states by allowing any mature man or woman who is teaching or expecting to teach, but who has not graduated from a high school, to enroll in the College for the Summer Quarter and take such work as he or she may be able to carry.

No college credit will be recorded, however, for any student until the requirements for college entrance have been fully met. A record of attendance and work will be kept. This may later be transferred to the permanent records and counted toward graduation when the entrance requirements have been complied with.

#### **Teachers College Co-Operation With St. John's College.**

St. John's College is a theological school maintained in Greeley by the Protestant Episcopal Church. Students in St. John's College are required to complete a course for the degree of Bachelor of Arts before that college will grant the degree of Bachelor of Divinity. Theological students take all their theological courses in St. John's College and their academic and teachers' professional courses in Colorado State Teachers College. Such students take all the required "core subjects" of the four-year course in Teachers College and count their St. John's courses as electives in the Teachers College curriculum. A total of 192 hours is required for the A.B. degree. For the requirements of the B.D. degree and for other details concerning the theological school and its requirements address The Reverend B. W. Bonell, Dean of St. John's College, Greeley, Colorado.

#### **HISTORY OF THE COLLEGE.**

The State Normal School of Colorado was established by an act of the Legislature of 1889. The first school year began October 6, 1890.

At the beginning of the second year the school was reorganized and the course extended to four years. This course admitted grammar school graduates to its freshman year, and others to such classes as their ability and attainment would allow.

At a meeting of the Board of Trustees, June 2, 1897, a resolution was passed admitting only high school graduates or those who have an equivalent preparation, and practical teachers. This policy made the institution a professional school in the strictest sense.

The Eighteenth General Assembly passed an act making the State Normal School at Greeley, Colorado, also the State Teachers College of Colorado. In the catalog and in all the official publications hereafter the title, "Colorado State Teachers College" will be used.

#### **EQUIPMENT**

The institution is well equipped in the way of laboratories, libraries, gymnasiums, playgrounds, an athletic field, art collection, museums, and a school garden. The library has 53,000 volumes. There is ample opportunity to work out subjects requiring library research. There is a handicraft department connected with the library wherein a student may learn how to conduct a library. The gymnasium is well equipped with modern apparatus. Games of all sorts suitable for schools are taught.

### THE GREELEY WATER

The water supply of Greeley is obtained from the canon of the Cache la Poudre, forty miles from Greeley, in the mountains. The water is passed through settling basins and filters until all foreign matter is removed. The supply is clear, pure, and ample for all the needs of the city. The system was constructed at an expense of \$400,000 and is owned by the city.

### BUILDINGS

The buildings which are completed at the present time consist of those described below.

**The Administration Building.**—The main, or administration building, is 240 feet long and 80 feet wide. It has in it executive offices, classrooms and class museums. Its halls are wide and commodious and are occupied by statuary and other works of art, which makes them very pleasing.

**The Library.**—The Library is a beautiful building. The first floor is entirely occupied by the library, consisting of fifty-three thousand volumes. The furniture in the library is of light oak and harmonizes with the room in a very pleasing manner. The basement is occupied by committee rooms, text-book department, taxidermy shop, wild animal museum, and the department, rural schools and agriculture.

**The Training School.**—The Training School is a commodious building of red pressed brick similar in style to the Administration building. In its construction no pains or expense have been spared to make it sanitary, fireproof, and in every possible way an ideal building for a complete graded school from the kindergarten to the high school, inclusive.

**Industrial Arts Building.**—The Simon Guggenheim Hall of Industrial Arts is a beautiful structure in the classic style of architecture. It is constructed of gray pressed brick. It accommodates the departments of Manual Training and Art, including every branch of hand work and art training applicable to the highest type of public school of the present and immediate future. This building is a gift to the College from Senator Simon Guggenheim.

**The President's House.**—The President's House is on the campus among the trees. In this beautiful home are held many social gatherings for faculty and students during the school year.

**The Club House and Model Cottage.**—During the year 1915-1916, two new buildings were completed and opened. The first of these is a model cottage of five rooms for demonstrations in house furnishing and housekeeping for the department of Home Economics. The second is the club house for women students. This beautiful building is used for student social gatherings.

**The Gymnasium-Auditorium.**—A temporary wooden structure was completed to take care during the war period of the needs for a modern gymnasium and auditorium. The money was available and plans drawn for the permanent gymnasium and auditorium, but for patriotic reasons, the conservation of labor, materials, and money, these plans were put aside for the present and a large, airy, light wooden building was constructed at small cost to provide a suitable floor for athletic games and an auditorium for the Summer Quarter lectures.

**The Household Arts Building.**—After the signing of the armistice and the consequent release of building materials, work was actively pursued on the new Home Economics building, the foundation for which had been already completed. This is a structure similar in construc-



tion, color, material and architectural design to the Industrial Arts Building. It is three stories high and will contain ample room for all the class rooms, laboratories, kitchens, dining rooms and work rooms for a well organized department of Household Arts in a teachers college, including both Household Arts and Household Science. A well arranged cafeteria will be maintained to provide meals for students.

**Other Buildings**—Other service buildings, such as an ample heating plant, a greenhouse, stables, garages, automobile repair shop, etc., are maintained.

### A NEW BUILDING PROGRAM

The Legislature of 1916-17 provided a millage tax for building purposes for all the state educational institutions. This taxation is to extend over a period of ten years and will give Colorado State Teachers College approximately \$100,000 a year for that period—a total of a million dollars for buildings.

None of this money was used until the war ended. Now the available funds will be used and the needed new buildings provided as rapidly as possible. Within the ten years the campus will be covered with all the buildings needed by a complete teachers' training college, including a new gymnasium, an auditorium, ample class room expansion, science laboratories, an enlarged library, a completed training school unit, kindergarten, elementary school, junior high school, and senior high school, and dormitories for the housing of a large part of the students whose homes are outside of Greeley.

### THE CAMPUS

Surrounding the buildings is a beautiful campus of forty acres. It is covered with trees and grass, and dotted here and there with shrubs and flowers.

In the rear of the buildings is a large play ground, which covers several acres. In the southwestern portion of this playground, is a general athletic field, a complete view of which can be secured from a grand stand which will accommodate more than a thousand spectators. On the portion of the grounds adjacent to the buildings there is a complete outdoor gymnasium. To the south of the buildings are located the tennis courts.

### SCHOOL GARDEN

One of the pleasing features of the Spring, Summer and Fall Quarters of the school is the school garden. This garden occupies several acres of ground and is divided into four units—the conservatory, the formal garden, the vegetable garden, and the nursery. From the conservatory the student passes into the large formal garden, where all kinds of flowers, old and new, abound. Here may be found the first snowdrop of early March and the last aster of late October. From the formal garden we pass to the school garden proper. Here in the garden and nursery the student may dig and plant, sow and reap, the while gathering that knowledge, that handicraft, that is essential in the teaching of a most fascinating subject of the up-to-date school—gardening.

The greenhouse is one of the best equipped of its kind in the United States. After a hard day's work it is a rest and an inspiration to visit this beautiful conservatory. Here hundreds of varieties of flowers are kept blooming all winter, and the early spring flowers and vegetables are started for the spring planting.

### FEES AND EXPENSES

The expense of attending Colorado State Teachers College is as low as can be made possible by careful management. The total expense may be estimated by taking into account the three largest items: board, room, and college fees.

**Board and Room**—Table board costs from \$4.00 to \$5.00 per week in the college cafeteria, where meals are supplied at cost to the student, in private boarding houses the cost is usually a little more—from five to six dollars a week. Room rent costs \$6.00 to \$8.00 per month with two students to a room. Rooms equipped for light housekeeping cost from \$6.00 to \$10.00 a month.

|                                     |         |
|-------------------------------------|---------|
| Board .....                         | \$48.00 |
| Room .....                          | 18.00   |
| Incidental Fee .....                | 8.00    |
| <hr/>                               |         |
| Total for a quarter (12 weeks)..... | \$74.00 |

Add to this your own estimate for travel, clothes, laundry, books, amusement, etc.

- Tuition**—1. Tuition is free to Colorado students.  
 2. Tuition to non-Colorado students is \$5.00 per quarter.  
 3. Fee for diploma to non-Colorado students is \$5.00.

**Fees**—The incidental fee (except in the Summer Quarter) is \$8.00 per quarter. This includes matriculation, enrollment, graduation, diploma, library, gymnasium and physical education fees. This fee is paid by all and is never refunded. After the opening day, late comers pay \$2.00 extra fee.

Fees for individual lessons in Piano, Organ, Violin and other musical instruments, and Voice are extra in the College Conservatory of Music.

The regular courses for the training of teachers in public school music, supervision of music, etc., are free.

**Text-Books**—Students may secure the regular text-books at the College Book Room at a reduction from the publisher's list prices. These books will be bought back from the student if in good condition, and still regularly used as text-books when returned.

### MAINTENANCE OF THE COLLEGE

The maintenance of the College comes from a state mill tax and from special appropriations made by the Legislature.

### GOVERNMENT

That government of a school which brings about self-control is the highest and truest type. Discipline consists in transforming objective authority into subjective authority. Students who cannot conform to the government of the College, and who cannot have a respectful bearing toward the school, will, after due trial and effort on the part of the faculty to have them conform, be quietly asked to withdraw. All matters of discipline and the management of student activities are in the hands of the Student Association.

All students who come from abroad, boarding in homes other than their own, are under the control of the institution while they are members of the College. Their place of boarding must be approved by the faculty, and their conduct in the town and elsewhere must always be such as to be above criticism.

**Discipline—Moral and Spiritual Influence**—While the school is absolutely free from denominational or sectarian influence, the aim is to develop a high moral sense and Christian spirit. As an individual who is weak physically or mentally lacks symmetry of development, so does one who has not his moral and spiritual nature quickened and developed. One who is being trained to stand in the presence of little children, and to lead, stimulate, and inspire them to higher and nobler lives,

should not neglect the training of his higher nature. God has immortalized us with His divinity, and it is our duty to respond by continuously aspiring to a higher life.

**Conduct and Health**—The conduct and health of the women students while in this College will be very carefully supervised by the Dean of Women and her assistant. It is earnestly desired that a friendly feeling of co-operation may exist between the women students and their advisers, so as to make possible the best conditions for efficiency during the years in residence.

While it is not the intention of those in authority to hamper the student with too many rules and regulations, it is necessary to emphasize the fact that the general conduct of young women students while in College is the greatest factor in influencing the decision of the authorities as to their suitability for the teaching profession; therefore, students are expected to conform to the rules recognized in good society in order that their conduct may not be questioned, either in College or in outside circles.

Entertainments attended by College students, but not given by the College, must be approved by the College authorities. Rules as to the frequency of these affairs will be strictly enforced, so that the student's health may not be impaired, and in order to conserve the proper number of her outside hours for regular study.

The rooming accommodations are looked into and must be approved by the Dean of Women. Certain requirements, such as quiet, cleanliness, suitable provision for heat, light, hot water, etc., are expected of the hostesses. Quiet behavior, consideration, prompt payment of bills, and, in a word, conduct becoming a future teacher of children, are expected of the women students in the rooming houses.

Finally, the parents and guardians of our young women are urged to unite with the Dean of Women in the endeavor to make college life for the students such that health, good behavior, and efficiency may be maintained.

A series of lectures will be given to the women students during the year by the Dean of Women. The women students are cordially invited to consult her at any time, in regard to their moral and physical well-being.

### THE STANDARD OF THE SCHOOL

It is the purpose of the trustees and faculty of Colorado State Teachers College to maintain a high standard of scholarship and professional training. Those who are graduated are to be thoroughly prepared and worthy of all for which their diplomas stand. It is the policy of the school, by making all graduates "worthy of their hire," to protect those who employ them, for in so doing we protect no less the graduates and the children whom they teach.

### DEPARTMENTAL MUSEUMS

The museums of Colorado State Teachers College are as fully developed for actual use as any in the whole country. Each department maintains a well-arranged museum. The objects in the museums are such as may be used by way of illustrating lessons.

### THE COLLEGE DORMITORIES

Three new cottage dormitories will be ready for occupancy at the beginning of the Fall Quarter. Each will house from thirty to fifty students. The small houses will make it possible to maintain the atmosphere and customs of a well-ordered home. The rooms are airy and well-furnished. Each is provided with two single couch beds, two

closets, and with hot and cold running water. Each house has a large and delightful living room, a kitchenette, and facilities in the basement for washing and ironing. No meals are cooked in the houses. The kitchenettes are for social purposes and for emergency cooking only.

Each student living in the College dormitories is expected to care for her room and to provide the following articles:

- Two pairs of sheets for a single bed.
- Three pillow cases of 42 inch tubing.
- Three bath towels.
- Three face towels.
- Three wash cloths.
- Two blankets and one comforter.

In addition to these each student may bring her own sofa cushions, pictures, pennants, and other articles for decoration and personal comfort.

Rooms will rent at \$18.00, \$21.00 and \$22.00 per quarter, per student, with two students in each room.

Students who make application for a room in the dormitories will deposit \$3.00. This deposit will be refunded when the student leaves at the close of the quarter or at the close of the year. Rent will be paid in advance for each quarter. In no case will rooms be rented except upon the quarterly plan. Students desiring rooms in the dormitories are requested to write to the Dean of Women at their earliest convenience, in order that their names may be placed upon the waiting list.

### BUREAU OF RECOMMENDATIONS

The Bureau of Recommendations of Colorado State Teachers College endeavors to act as a clearing house seeking well-equipped teachers, and teachers seeking positions. It assists its graduates who desire to teach in securing positions and at the same time it is of service to superintendents and boards which may be in need of competent instructors.

The Bureau is prepared practically at all times to recommend persons who are well qualified for positions in the elementary, secondary and teacher training institutions; superintendents, high school principals and teachers, junior high school teachers, supervisors and principals, kindergarten teachers and supervisors, primary teachers and supervisors, intermediate teachers and supervisors, consolidated, rural and village teachers, supervisors in art, music, domestic science, domestic art, commercial subjects, industrial arts and physical education.

In making recommendations great care is exercised. Special qualifications of various teachers for the particular position are in every case fully considered. Records are kept of every detail of the student's qualification for teaching; the estimate of the college professors, of the scholarship, personality, strength of character and general adaptability of the candidate; critical estimates of the student's teaching ability indicated by her student-teaching in the elementary or secondary training schools; the estimate of superintendents and supervisors under whom the student may have taught.

The Bureau urges superintendents and school administrators to come to Greeley in person whenever possible, so that personal conferences with the College instructors and the candidate for teaching may insure mutual satisfaction and be a guarantee of effective service.

### THE CHRISTIAN ASSOCIATIONS

**Y. W. C. A. and Y. M. C. A.**—Realizing the necessity for religious and social culture in the school, and believing that much good comes of

Christian association, a large number of interested students have organized themselves into the Young Women's Christian Association and the Young Men's Christian Association. Meetings are held at various times, and persons who have given considerable thought to the life and aspirations of young people are invited to address the meetings.

**The Newman Club**—The Catholic students of the college are organized into the Newman Club, the work of which is similar to that of the other Christian organizations. This club has a membership of active young people. All three of the organizations have been co-operative in forwarding the religious work and welfare of the College.

#### BIBLE STUDY—"The Greeley Plan"

Unusual opportunities for Bible Study are offered to students thru a system of co-operation between the churches of Greeley and the Teachers College. Perhaps Colorado State Teachers College is more widely known nationally for this plan of Bible Study than for any single thing which it is doing. A number of magazine articles have been written about it, and there has been published, by the World Book Company, a book, "Bible Study in Schools and Colleges," by Judge Walter A. Wood of the New York Appellate Court, dealing with this plan and its adaptation and extension into more than half the states in the United States. It is a material advantage to a student to get into touch with this work in some one of the churches, Protestant or Catholic, and know at first hand what is being done here in progressive, modern Bible Study. One who knows this work is distinctly more valuable to the community where she teaches than she would be without it. Bible courses of college grade are maintained in all the larger churches. Under specified conditions, students may receive college credit for the work done in these classes. Last year 250 students availed themselves of the opportunity of Bible Study under this plan. A student may register for the regular number of hours in the College and then take either the Bible Study or Community Co-Operation work in addition. The amount of credit given for either of these two pieces of outside work is one hour a quarter.

#### COMMUNITY CO-OPERATION PLAN

The College has instituted a plan in which provision was made for allowing students to go out to various organizations in the community to assist them in their undertakings. This plan is known as the Community Co-Operation Plan. It was agreed to allow students regular college credit for acting as teachers, leaders, or directors of such groups as Boy Scouts, Girls' Camp Fire, Boys' Clubs, Girls' Clubs, Sunday School Classes, Junior Christian Endeavor Societies, Junior Epworth Leagues, Sodalities, Children's Choir or Orchestra, Modern Language Classes, Civic Training Classes for the Adult Alien, Business Efficiency Classes, Story Telling Groups and similar organizations.

The College was willing to inaugurate the plan because of its promise of usefulness both to the community and to the prospective teacher. The plan will benefit the community by bringing to organizations the assistance of well-trained college-students. The plan will be of vital aid to the student who is preparing to be a teacher. It will give him an opportunity to study children at close range outside of the school room. He will have a richer understanding of social problems and be better able to take a place of leadership in his community. All this will make a greater success possible for him and will extend his influence for good wherever he enters upon the work of teaching.

#### LOAN FUNDS

The following are a number of loan funds that are designed to help needy students to complete courses in Colorado State Teachers College.

**Students' Relief Fund**—The object of this fund is to afford pecuniary assistance to meritorious students who have exceptional need of such help. It not infrequently happens that a promising student who has entered upon his work with the expectation of carrying it through until graduation meets with an unexpected loss, through sickness or other causes, which compels him either to leave the school or to continue the work under conditions that are not conducive to the best results. To meet the need of these students, a fund has been established, called the Students' Relief Fund, from which money is loaned to such students until they are in a position to repay it.

The money constituting this fund consists of contributions from persons and organizations disposed to help in the work, and of the interest derived from loans. The secretary of the Board of Trustees of the College is the custodian of the fund.

Applications for loans are made to the Loan Committee, which is composed of members of the faculty of the College. This committee carefully investigates the record of the applicant, and grants his petition only in case it is satisfied that he is worthy of such help, and will be in a position to repay the money within a reasonable time. No loan is made unless a student has already completed the greater part of his course in the College, and is consequently well-known to the teachers. The treasurer accepts the student's note, and collects it when it becomes due.

**Y. W. C. A. Student Aid Fund**—The Young Women's Christian Association has a fund of several hundred dollars which is kept to aid students who need small sums to enable them to finish a term or a course. The fund is in charge of a committee comprised of the treasurer of the society, two members of its Advisory Board and a member of the faculty. Loans are made without reference to membership in the society.

**Third and Fourth Year Scholarship Fund**—This Fund is an accumulation of money contributed by four-year graduates and others who may be interested in creating a fund for those who pursue courses leading to the A.B. degree. This fund now approximates one thousand dollars, from which loans are made to advanced students only. It has already helped many worthy students to continue to the end of their four-year courses. This fund is in charge of the Board of Trustees.

**First and Second Year Scholarship Fund**—This fund is an accumulation of money contributed by first and second year graduates and others who may be interested in creating a fund for those who pursue two-year courses. This fund is in charge of the secretary of the Board of Trustees and is subject to the control of the students of the first and second years.

**The William Porter Herrick Memorial Fund**—This Fund, the gift of Mrs. Ursula D. Herrick, in memory of her husband, the late William Porter Herrick, consists of the principal sum of \$5,000. The proceeds or income of said fund are to be paid over and expended by the Board of Trustees of Colorado State Teachers College of Colorado in aid of such worthy and promising under-graduate students of the College, of either sex, as the President of said College may from time to time designate; provided, however, that no student who uses tobacco in any form or who uses intoxicating liquors of any kind as a beverage shall participate in the benefits of this fund. The sum or sums, income or proceeds so expended by the said Trustees shall be considered in the nature of a loan or loans to such students as may receive the same, and each of said recipients shall execute a note or notes promising to repay to said Trustees the amount or amounts so received within five years after graduation or quitting College, without interest; but it is the desire of said donor that no student shall be pressed for the payments of said note or notes when the same shall become due and payable, so

long as the Board of Trustees shall be satisfied that the recipient is making every reasonable effort, according to his abilities, to repay the same and is not endeavoring to repudiate the obligation.

**The Ben Hur Scholarship**—The Tribe of Ben Hur, a fraternal benefit order with headquarters at Crawfordsville, Ind., has designated Colorado State Teachers College as an institution to which it will assign one or more of its educational scholarships of \$500 a year. These scholarships are awarded to members of the order, both men and women, and must be applied for directly by the members. A blank form for the application may be had by addressing the Supreme Tribe of Ben Hur, Crawfordsville, Indiana.

**Graduate Scholarships**—Other funds available for students are listed under the head of Graduate Scholarships. See page 32.

### GIFTS TO THE COLLEGE

From the beginning of the life of the College, friends and organizations have been generous in making gifts of land, money, books, museum specimens, and other articles of value. The authorities of the College gratefully acknowledge their obligation to all these donors, and invite any who may feel inclined to make similar donations.

## Honorary Fraternities

### KAPPA DELTA PI

**Honorary Fraternity in Education**—In November 1919 the application of a group of students in Colorado State Teachers College for a chapter of said fraternity was granted by the Grand Council of that organization. After the preliminary arrangements had been completed the charter members of the new fraternity were initiated by the representatives of the University of Colorado chapter as Theta Chapter.

The fraternity is open by invitation both to men and women. The scholastic standard set by the chapter requires that a candidate have at least fifty per cent of his marks "A" and "AA's". The candidate must have attained at least junior standing in the College and must have had, or at the time of the application be taking, at least nine hours in Education.

Colorado State Teachers College is the first teachers college to have the honor of a chapter of this honor fraternity.

### PI KAPPA DELTA

**Honorary Debating Fraternity**—The national honorary fraternity Pi Kappa Delta was the first honorary society to be installed in Colorado State Teachers College. It was installed in the College in the spring of 1918. The purpose of the organization is the encouragement of intercollegiate debate and oratory. Membership is limited to those who have taken part in recognized intercollegiate debates or oratorical contests, or are actively engaged in coaching such students. During the past year the following students have been elected to membership in Pi Kappa Delta: Calvin Alexander, Margaret Clark, Roy Harper, Alma Herfurth, Dewey Marker, Yvonne Letey, and Eric Smith. Members of debate teams are selected in try-outs open to the whole student body, so that every student has the opportunity of working for the honor of election to membership in this society.

## The Extension Department

### PURPOSES OF EXTENSION WORK

The purpose of an Extension Department in a teachers college may be expressed from several points of view.

### CO-OPERATION WITH SUPERINTENDENTS

Primarily, it is a standing offer of the College's resources to **public school leaders** for the purpose of promoting their plans for public school improvement.

### TRAINING DURING SERVICE

As a result of constant supervision of the work of teachers, city and county superintendents of schools gather a valuable fund of information concerning the **deficiencies** of teachers and their **need of special study and training**. On the basis of such classified information about recurring needs superintendents frame their general programs for the cumulative improvement of the work of their teachers. At this point the College thru the Extension Department offers its service to superintendents. In consultation with the superintendent the College offers courses of instruction designed to meet the **ascertained needs** of the teachers, and provides an instructor to meet the teachers regularly in their own town. From this point of view the **Extension Department exists to co-operate with superintendents in the work of giving training during service**.

### DISCOVERING THE NEEDS OF SCHOOLS

As a result of the tendency to adopt scientific methods of working out the problems of Education, public school leaders are applying to their schools a familiar practice of the business world—the **inventory**. In Education this practice is called the **survey**. It consists in taking stock of the entire educational situation as a means of discovering the phases of the work which especially need attention. Thru the Extension Department the College offers its services to superintendents who wish as the starting point of their campaign of improvement the complete perspective which an educational survey provides. From this point of view also, the Extension Department exists for the purpose of co-operating with school superintendents in the task of giving training in service—because the survey discloses, among other things, the specific needs of training for teachers.

### PROMOTING THE PERSONAL GROWTH OF TEACHERS

Secondarily, the Extension Department is a standing offer of the resources of the College to ambitious teachers who can not at the time attend College.

### MEETING THE PROFESSIONAL NEEDS OF TEACHERS

The thoughtful teacher **discovers his needs** by the difficulties he meets in his daily work, by the suggestions of his superintendent, by comparison of his work with that of other teachers, and the like. The teacher with **scholarly tendencies** craves opportunity to follow up some interesting subject for the study of which he needs the direction of a specialist. The teacher with a **penchant for research work** in his field finds that he needs help in blocking out his problem and devising fruitful lines of attack, and so on. Or the teacher in line for promotion feels that he needs to be ready to teach a new subject next year.

To all such teachers the College offers thru the Extension Department a wide variety of courses in many fields of culture, and as much counsel upon the specific problems as may be desired.

### THE WARRANT FOR EXTENSION SERVICE

In short, the Extension Department of Colorado State Teachers College is organized to co-operate with public school leaders in their effort to give training during service; and to provide timely help to individual teachers in improving their mastery of their craft. It is the College's practical recognition of the fact that no vocational school can anticipate in its resident curricula **all the problems** that will arise in the work of its graduates under the varied conditions of life in the world of affairs. Schools of medicine and nursing, schools of philanthropy,



schools of commerce and agriculture can not do it. Neither can schools for teachers. The period of school life is too short; the initial equipment of students is too uneven; and the social and economic conditions of the communities to which graduates go are too unequal to admit of more than partial success even in the attempt to equip students to meet the characteristic responsibilities of their occupation. Consequently, for the teacher as for the doctor, the nurse, the social worker, the business man, and the farmer, the progressive higher school must provide an extra-school service directed at the exigencies that arise in practice. Beyond this the Extension Department is the College's recognition of the fact that teaching is an occupation which may in many communities be entered with little preparation, and which oftentimes must be pursued with but little timely help.

Consequently, as a result of both sets of conditions, training during service, properly and inevitably constitutes a very important part of the program of both superintendents and teacher-training schools. The courses described in this bulletin, and the special courses asked for by the superintendents and given in various forms under the **group plan** of instruction (see below) are a part of this College's contribution to the solution of the superintendents' problem of giving training during service.

#### HOW EXTENSION WORK IS ORGANIZED AND CONDUCTED

There are two general schemes of instruction. In the following paragraphs each is described.

##### THE GROUP PLAN OF INSTRUCTION

**1. Instruction by members of the College Faculty:** In centers close enough to the College to make such procedure possible, members of the College faculty will conduct courses for teachers. Realizing that the superintendent of schools is in a position to know better than anybody else the characteristic needs of his teachers, the College prefers that the superintendent should take the initiative in determining what courses ought to be offered at any given time in his town. Ordinarily such classes meet once a week in towns within 100 miles of Greeley. In towns farther away than this fortnightly meetings are usually necessary unless the class be exceptionally large. Under the best of circumstances, however, each such class involves a substantial deficit to the College, which must be provided for in the budget. So, instruction under this plan is restricted to groups of 20 or over.

Courses under the **group plan** are conducted as nearly as possible in the way in which they would be conducted in residence at the College. The periods are of course longer, and the meetings are necessarily less frequent—important variations which require definite adjustments from the instructor, both for the sake of the students and in the interest of the College's standards of work.

**2. Instruction by Local Representatives of the College:** In centers too remote from the College to admit of sending members of the faculty for regular class work, it is frequently feasible to appoint a resident of the community to represent the College for a particular line of instruction. A person, usually a school man, who possesses at least the degree of A. B., or its substantial equivalent, and who has had professional training and experience that would justify his appointment as a member of the College faculty, may be appointed an Extension Instructor. Under the general direction of the College he gives the course agreed upon with the Extension Department, observing the same regulations as govern the group instruction conducted by members of the College faculty. He assumes full responsibility for the organization of the class, the keeping of the necessary records, the transmission of initial and final reports to the Extension Department and the like. He transmits to the Extension Department the total fees collected from

his class, and receives from the College for his services a percentage of these fees. Courses given under this plan are announced at the beginning of each semester in the towns where they are offered, and enrollment is accomplished as in the classes conducted by members of the faculty.

### INDIVIDUAL CORRESPONDENCE COURSES

**How to Enroll**—The process of enrollment for correspondence study is simple. The student chooses from the Handbook the course which he wishes to study. If it is a credit course, he notes how many hours of credit it carries. He reads the sections on **Fees**. He then writes to the **Extension Department, Colorado State Teachers College, Greeley, Colorado**, enclosing a check, draft, or money order for the fees, stating clearly what course he wishes to take, explaining what his previous training and experiences have been, and mentioning the work he is now doing. Correspondence study may be begun at any time, but under a regulation of the business office of the College, **NO ENROLLMENT CAN BE MADE UNTIL THE NECESSARY FEES HAVE BEEN PAID.**

Upon receipt of the fees the secretary of the Extension Department enrolls the student for the course chosen and sends him the material he needs.

**The nature of Correspondence Courses**—Each **Correspondence Course** consists of (1) a set of "study units" containing questions such as might be asked in class, assignments such as might be made in residence study, and explanatory sections corresponding to the explanations which instructors often make in class; (2) a "material sheet" which informs the student fully in regard to all the books and other material needed for the course, with what study units each book will be needed, and so on; and (3) a sheet of "general directions" for preparing recitation papers. For a full description of how correspondence courses are conducted, see Handbook of the Extension Department.

## The Training School

The training schools have a two-fold function. First, to train college students in the art of teaching. Second, to maintain as nearly as possible an ideal elementary and secondary organization.

The fundamental purpose of a training school is not to serve as a research laboratory, but rather to serve as a laboratory in which the student verifies his educational theory and principles. The training school, as a laboratory, is a teaching and testing laboratory rather than a research laboratory. It provides an opportunity for student teachers, who have a sufficient knowledge of the subject matter and the theory and principle of education, to receive practice in the solution of the daily problems and management under the supervision of expert training teachers. New methods that save time, new schemes for better preparing the children for life, new curricula and courses of study are continually considered by this school and tried out, provided they are sound educationally. The aim is not to develop a school that is entirely different from the elementary and secondary schools of the state but to reveal conditions as they are and as they should be. The training schools strive to be the leader in the state in all that is new and modern. Effort is made to maintain such standards of excellence in the work that it may at all times be offered as a demonstration of good teaching under conditions as nearly normal as possible in all respects. Untrained and unskilled teachers do not practice on the pupils. This problem is solved by having in each grade or subject a trained teacher, one chosen with the greatest care, whose personality, native intelligence and training all fit her for the double duty of teaching student teachers to teach and teaching children. The training teacher is at all times responsible for the entire work of her grade or subject. The

training schools are being built on the theory that the best interests of student teachers and the best interests of the elementary and secondary pupils can be made to harmonize. Whatever interferes with the proper development of one interferes with the proper development of the other.

The training schools maintain a complete elementary and secondary school system from the Kindergarten to the Eighth grade and four years high school. Every student is required to spend one hour per day for two quarters for student teaching in the elementary training school sometime during her second year in Colorado State Teachers College. A third quarter of teaching may be elected and in most cases is very advisable. A student receiving a diploma at the completion of her first two years in college will have at least two quarters of teaching. With the completion of four years of college work she will receive the degree of A. B. and will have had at least three quarters of teaching. Student teaching in the Senior College may be taken in either the elementary or secondary training school.

Teaching in the training schools includes conferences, observations, supervisions, lesson plans, and teaching on the part of the college students.

### ELEMENTARY TRAINING SCHOOL

The Elementary Training School is a complete elementary school unit containing Kindergarten, First, Second, Third, Fourth and Fifth grades. The Sixth, Seventh and Eighth grades are organized on the departmental plan for the purpose of exploring and diagnosing earlier than usual the interests, attitudes, and abilities of pupils and at the same time provide better for individual differences. This organization affords a splendid opportunity for studying Junior High School problems. The school is so organized that pupils may advance as rapidly as they are able to do the advanced work.

A small tuition fee of fifty cents per quarter is charged for the first four grades and one dollar per quarter is charged for each of the remaining grades.

In addition to the regular school subjects the pupils of the Elementary Training School have the opportunity of electing special work from the following subjects: typewriting, bookbinding, wood-working; home economics, including cooking, sewing, hygiene and sanitation; music, elementary science; physical education; French, Spanish, and automobile repairing.

In the Elementary Training School the training teacher spends approximately one-half of her time teaching and the other half observing the student teacher. In this way inexperienced students are not allowed to disturb the advancement of children. During the first week or ten days of each term the training teacher does all of the classroom teaching in order to put the school in a good working attitude. The class organization is perfected and the technique of classroom management well established. During this time of adjustment the student teachers are observing the training teacher while she is getting the school well started and organized. During this period of observation the student teacher writes up lesson plans from the lessons observed and determines from her observation how the training teacher puts into actual practice the principles of teaching. Student teachers will form standards for classroom work and definite ideas for applying these standards to classroom instructions. This period gives the student teacher an opportunity to learn the names of the pupils so she can easily identify each one; the individual differences among the pupils, facts about attendance records, and reports. Gradually the teaching will be placed in the hands of student teachers as their success seems to warrant. However, no student will continue

teaching any considerable period of time when the class is losing ground under her instruction. Under close supervision during the first part of her teaching the student teacher will not be permitted to go far astray or form bad habits in teaching and children will not suffer under her instructions.

Every student is expected to teach a number of different subjects. As a rule it is thought best that she have experience in three grades, in either the primary, intermediate, or upper grade groups. All assignments for teaching are made by the heads of departments and the director of the Training School in conference with the student. All student teaching in the Elementary Training School is preceded by the course "Principles of Teaching and Observation," in which the student is required to do a definite amount of systematic observation together with a study of the technique of teaching in the elementary school.

### SECONDARY TRAINING SCHOOL

The primary function of the Secondary Training School is to train that group of teachers who expect to enter the field of secondary education. Four hours of student teaching is required of all students in the Senior College who expect to take their A. B. degree. It is advisable for students who have had no experience in high school teaching to take at least eight hours of student teaching. Three years of college training is prerequisite to student teaching in the high school. In the Secondary Training School the student spends over two-fifths of his time in teaching and the remainder in observation. When not teaching the student teacher is held responsible for preparation and participation in the discussion of the recitation just as any other members of the class.

The State High School of Industrial Arts (The Secondary Training School of Colorado State Teachers College) is being built upon the theory that the highest interests of the student teachers and the highest interests of the high school pupils can be made to harmonize.

In addition to its excellent teaching force, the school has the use of the splendid equipment of the College. The library, the museums, the collections of fine arts and the laboratories are all available to high school students. The courses are vital and practical and are intended to meet the needs of boys and girls of the present age.

Students will select the subjects they teach upon the recommendation of the head of the department in which they are majoring and the director of the training schools. The first quarter of teaching will be a subject from the student's major and the second quarter from his minor. A course in "The Principles of Teaching in the High School" precedes the student teaching. This course consists of a series of systematic observations together with a study of the technique and principles of teaching in high schools.

Students in the State High School of Industrial Arts pay a fee of four dollars per quarter.

### THE SCHOOL OF ADULTS

It often happens that for economic reasons boys and girls are compelled to leave school in the grades or in the early years of high school. Upon reaching maturity they realize the value of an education and are anxious to obtain one, but are unwilling to enter classes with children. The purpose of the School of Adults is to open the door of opportunity to such students. The work will be evaluated according to the strength shown, and the individual will be classified after sufficient time has elapsed, in accordance with the power demonstrated without the necessity of completing each omitted step.

The School of Adults provides a special school for adult students. It appreciates the value, in terms of character and intelligence of the services rendered by the individual to the community, and gives a reasonable amount of credit for the same. And, most significant of all, it substitutes the power-unit for the time-unit. No one can enter the School of Adults who has not reached the age of twenty years.

## The Graduate School

The Graduate School offers advanced instruction leading to the degree of Master of Arts in Education. The principal aim of graduate study is the development of power of independent work and the promotion of the spirit of research. The various departments of the College which offer graduate courses are willing to offer not only courses regularly scheduled, but others of research and advanced nature which the candidate wishes to pursue. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work.

Persons holding the degree of Bachelor of Arts, Philosophy, Science or other four year degree from a reputable institution authorized by law to confer these degrees and approved by this institution may be admitted as graduate students in the Colorado State Teachers College upon presentation of official credentials, including transcript of records of under-graduate work.

The prospective student should obtain the blank "Application for Admission" and send it to the Committee on Advanced Standing for its approval before the opening of the quarter. Such blanks may be secured by addressing Colorado State Teachers College, Greeley, Colorado. Original credentials should be submitted with the application for admission.

### GENERAL PLAN OF WORK FOR THE DEGREE OF MASTER OF ARTS IN EDUCATION

**Residence**—Three quarters of work is required in residence at the College in advance of the requirements for the A. B. degree. This is three quarters of work beyond a four-year college course.

**Units of Work**—A year's work shall be interpreted as forty-eight quarter-hours. Thirty-eight hours credit will be given for graduate courses pursued and ten hours for the Master's thesis, which is required. Sixteen hours credit a quarter during the regular school year is the maximum, inclusive of the research involved in the thesis requirement.

**Admission to Candidacy for Degree**—Admission to the Graduate School does not guarantee admission to candidacy for the M. A. degree. The student shall not be admitted to candidacy for the degree earlier than the close of his first quarter's work (completion of sixteen credit hours). Such admission shall be determined by a committee consisting of the President of the College, the Dean of the College, the Dean of the Graduate School, the head of the department in which the student is majoring, and two professors with whom the student has had work, these to be chosen by the Dean of the Graduate School. The merits of each student shall be the basis for the decision of this Committee; personal fitness, the ability to use good English, both oral and written, and the ability to do superior work in the field of specialization are among the important things to be considered by the Committee.

### THE NATURE OF GRADUATE WORK

**Specialization**—In keeping with the function of a teachers college, graduate work shall be confined largely to professional lines of work. It shall represent specialization and intensive work. As soon after enrollment as possible the graduate student shall focus attention upon some specific problem which shall serve as the center for the organization of his year's work, including courses to be taken and special investigations to be conducted. No graduate credit will be given for scattered and unrelated courses.

**Thesis**—Research work culminating in the writing of a thesis upon some vital problem of education shall be an integral part of the work for the Master's degree.

**Breadth and Range of Professional Outlook**—In addition to the intensive and specialized work which is required of candidates for the Master's degree, they are expected to know the fundamentals of professional education.

**Final Examination Upon the Whole Course**—There shall be a final examination, oral or written, upon the whole course. An oral examination of two hours duration is customary. This examination will cover the following ground: (a) The field of the thesis and special research, including topics closely related thereto; (b) The field covered by the courses taken by the candidate; (c) The general fields of Psychology, Sociology, Biology and Education.

### GENERAL INFORMATION

1. All courses taken by graduate students must be approved in advance by the Dean of the Graduate School.
2. No graduate student may enroll for more than sixteen hours of work in any quarter. This regulation is essential to the maintenance of the standard of intensive work for the Master's degree. In determining the maximum amount of work permitted, research upon the thesis topic must be included within the limit stated. To this end, the student doing research work upon his thesis topic must enroll for the same.
3. Twelve hours shall be the minimum number of hours considered as a term in residence. If for any reason a student cannot carry more than twelve hours a quarter, the remaining hours may be taken in non-residence when approved in advance by the Dean of the Graduate School.
4. In order that the standard of intensive and specialized work for the Master's degree may be maintained, no graduate credit will be given for elementary courses, for scattered and unrelated courses, for public platform lectures or public platform lecture courses, or for courses in which the element of routine is large as compared with the theoretical and professional aspects.
5. Excess A. B. work may be applied toward the M. A. degree only when arrangement is made in advance, with the Dean of the Graduate School, so that he may see that the work is of the M.A. standard and that it is in line with the specialization necessary for the M.A. degree. Such credit will be granted only to students in their fourth year who do not need all their time for the completion of their undergraduate work.
6. The courses which may be taken for graduate credit must be of an advanced character, requiring intensive study and specialization. Certain approved undergraduate courses may be pursued for graduate credit; but, when so taken, the character of the work done and the amount of ground to be covered must be judged by a higher standard than that which applies to the regular undergraduate student. The standard of intensive work set for the graduate student must be maintained even if special additional assignments have to be made to the graduate student who works side by side with the undergraduate.
7. Satisfactory teaching experience shall be regarded as a prerequisite to graduation with the Master's degree. Teaching in some department of the College or its training schools may, under certain conditions, be included in the graduate work of the candidates for the Master of Arts degree. Routine teaching will not be recognized for graduate credit. When graduate credit is given to teaching, this work must be of an advanced character, so organized, controlled and supervised as to insure some decided growth of the teacher in the scholarship of the subject or professional insight into its value and problems.

8. Sixteen hours of credit toward the M. A. degree shall be the maximum amount allowed to be earned in a regular school year by anyone who is employed on full time, except upon the recommendation of the Dean of the Graduate School.

9. Before the M.A. degree may be conferred a student must have had at least 72 hours of college work in his major and not less than 32 hours of professional work in Education and related fields which is acceptable in the various states as requirements for certification.

10. All work for the M.A. degree shall be done with distinction; work barely passed (marks of D and C under the present marking system) shall not be considered worthy of such an advanced degree.

11. The thesis subject of the graduate student must be approved in advance by the Dean of the Graduate School and by the head of the department concerned. Before the degree is conferred the thesis, as a whole, and in detail, must be approved by the head of the department or the instructor under whose direction the thesis work has been done and also by the Dean of the Graduate School. Two typewritten copies of the thesis must be placed on file with the Dean of the Graduate School, both of which he shall place in the library for permanent reference.

12. Before the candidate for the Master of Arts degree is admitted to final examination the thesis requirement must be met in full, and the thesis must be in such a state of readiness at least three weeks previous to final examination, that only minor reconstructions need to be made which will not delay its being put in final typewritten form for filing before the end of the quarter in which graduation falls.

13. The final examination will be presided over by the Dean of the Graduate School and conducted by the head of the department in which the candidate has done the main part of his work. Other members of the faculty may be given an opportunity to participate in the examination. An official visitor, or official visitors, from outside the department in which the candidate specialized shall be appointed to attend the examination.

#### DIRECTIONS AS TO FORM OF THE THESIS

Students submitting theses should present them in typewritten form, upon paper of good quality, of customary size (8½x11), leaving a margin at the left adequate for binding—fifteen points by the typewriter, twenty if the manuscript is thick.

A title page should be prepared, containing in neat lettering at the top, the name of the institution, COLORADO STATE TEACHERS COLLEGE; below this at some distance the title of the thesis; about the middle of the page the statement: A THESIS SUBMITTED IN CANDIDACY FOR THE DEGREE OF MASTER OF ARTS IN EDUCATION; at a lower level of the page the author's name, and at the bottom the address, and the year.

All theses should contain a brief analysis or table of contents at the beginning; should give footnote references to literature quoted by author, title of book or article and exact page; and should contain at the end a bibliography of the literature of the subject. In giving bibliographical material, the customary form of publishing houses should be used, which is quite uniformly that of the author first, followed by title, publisher and copyright date, and in the case of magazine references, this by title of magazine, volume or date and page.

#### FEES FOR GRADUATE COURSES

Fees for graduate students in the Summer Quarter and in the regular school year will be on the same basis as fees for all others.

## Graduate Scholarships for 1921-22

### THE HENRY STRONG GRADUATE SCHOLARSHIPS\*

Scholarships totaling \$1,000.00 are offered by the Henry Strong Educational Foundation for the school year 1921-22.

These are open either to young men or young women not more than twenty-five years of age who desire to continue college work and to prepare more thoroughly for the work of a teacher. The A.B. or other baccalaureate degree of equivalent value must be held by the candidate since the scholarship is open only to graduate students. The scholarships are designed primarily to assist students who are not financially able to continue college work but scholarship and ability will be taken into consideration in the selection of candidates.

### THE PRESBYTERIAN CHURCH GRADUATE SCHOLARSHIP\*

The First Presbyterian Church of Greeley aided by the General Board of Education offers to a member of the Graduate School a scholarship with a \$600 stipend for the school year 1921-22.

This is open to any graduate student who is qualified by natural ability and Christian experience as well as scholarship to assist the local church, particularly as it endeavors to keep in touch with the Presbyterian students in the college and maintain classes in training for Christian leadership. The position in the church is to be The Director of Religious Education and half of the student's time is to be given to it.

### THE PRESBYTERIAN BROTHERHOOD SCHOLARSHIP\*

The Brotherhood of the First Presbyterian Church offers to a member of the Graduate School a scholarship with a stipend of \$150 for the school year 1921-22. This is open to young men qualified to assist in the boys' work of the church. A fair amount of time of the holder of this scholarship will be asked in return for the stipend.

### WELD COUNTY SAVINGS BANK GRADUATE SCHOLARSHIP\*

The Weld County Savings Bank offers to a member of the Graduate School a scholarship with a stipend of \$100 for the school year 1921-22. This is open to any young man or woman who wishes to pursue advanced study in preparation for teaching. The scholarship is designed to primarily assist a student who is not financially able to continue college work, but scholarship and ability will be taken into consideration in the selection of the candidate.

### GRADUATE SCHOLARSHIP\*

A scholarship with a stipend of \$450 is offered for the school year 1921-22 to a graduate student who desires to continue advanced study in preparation for the teaching profession. It is open either to a young man or woman. Approximately six hours of teaching will be required in return for the stipend. The remainder of the student's time may be spent in advanced work in his major and allied studies looking toward the Master of Arts degree.

### DENVER TEACHER'S GRADUATE SCHOLARSHIP\*

The members of the Extension Course given in Denver offer a graduate scholarship with a stipend of \$100 for the school year 1921-22. This is open to any student who wishes to pursue advanced study in preparation for teaching. First preference will be given to a teacher in the Denver Schools. The scholarship is designed primarily to assist a student who is not financially able to continue college work but scholarship and ability will be taken into consideration in the selection of the candidate.



**DELTA PHI OMEGA GRADUATE SCHOLARSHIP\***

The Delta Phi Omega Sorority offers two graduate scholarships with a stipend of \$150 each for the school year 1921-22. These are open to any student who wishes to pursue advanced study in preparation for teaching. First preference will be given to a member of said sorority. The scholarship is designed primarily to assist a student who is not financially able to continue college work, but scholarship and ability will be taken into consideration in the selection of the candidate.

All applications for the two scholarships should be made to the Dean of the Graduate College.

**SIGMA UPSILON GRADUATE SCHOOL LOAN FUND**

The Sigma Upsilon Sorority has established a Graduate School Loan Fund to be used in helping advanced students remain in college for the Master of Arts degree. This fund is available to all students whether members of said sorority or not.

All applications for loans should be made to the Dean of the Graduate School.

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\*Regular college fees will be waived for the holder of any graduate scholarship.

# THE COURSES OF STUDY

(For Undergraduates)

Throughout this catalog courses numbered 1 to 99 are primarily first and second year subjects; 100 to 199 are third and fourth year. Those numbered 200 and above are Graduate School.

Colorado State Teachers College is a technical school. Its business is to train teachers for all types of schools maintained by the state. The College has abandoned the idea that there is a possibility of training teachers for the various kinds of teaching thru the medium of a single course of study or a scattered elective course.

Two-year and four-year courses of study for teachers are provided by the following departments:

|  |                                      |
|--|--------------------------------------|
| Agriculture (2 yrs. only)                      | Geology, Physiography and Geography. |
| Biology.                                       | History and Political Science        |
| Chemistry.                                     | Home Economics.                      |
| Commercial Arts.                               | Hygiene and Physical Education.      |
| Education.                                     | Industrial Arts.                     |
| Superintendents, H. S. Principals and Teachers | Literature and English.              |
| Kindergarten,                                  | Mathematics.                         |
| Primary.                                       | Music.                               |
| Intermediate.                                  | Physics.                             |
| Junior High School.                            | Romance Languages and Latin.         |
| County Schools.                                | Social Sciences.                     |
| Educational Psychology.                        |                                      |
| Fine and Applied Arts.                         |                                      |

Each student selects a department in which he expects to specialize. The head of the department selected becomes the student's permanent adviser thruout his college course. The choice of a course may be made at the opening of the student's first college quarter. But if the student is undecided, he may register for one quarter as unclassified and defer the selection of his major subject until the beginning of his second quarter.

**Length of Course**—Each course is planned to occupy twelve quarters. A quarter is approximately twelve weeks in length. Upon the completion of the course the degree of Bachelor of Arts in Education will be granted. The diploma is a Colorado life certificate. Each course is so arranged that it may be divided in the middle. The first part of the course may be completed in six quarters. The student who chooses to be graduated at the end of the two-year course receives the Colorado life certificate, but no degree. Students who come to the college with advanced standing, and those who gain time by doing work of exceptional quality, may shorten the course somewhat.

**The Professional Core**—Each of the courses differs somewhat from the others in the subjects required by the department, but each course contains the following subjects:

**First Year:** Biology 2, English 4 (unless excused for proficiency), Hygiene 7, Ethics 1 (for women), Sociology 3, Education 1, Education 8, and a Physical exercise course each quarter.

**Second Year:** Psychology 2a and 2b, Education 2a and 2b (practice teaching), Education 10, and a Physical exercise course each quarter.

**Summary**—Core subjects 42 hours. Departmental requirements 30 hours. Free electives 24 hours. Total 96 hours.

**Third and Fourth Years:** (For majors in elementary school work, supervision, etc.) Education 102 (practice teaching), Education 111, Hygiene 108, Psychology 104 and 108a, and Sociology 105.

**Third and Fourth Years:** (For majors expecting to become high school teachers, supervisors, and principals) Education 101, 103 (practice teaching), and 111, Hygiene 108, Psychology 105 and 108 b and Sociology 105.

**Summary**—Core subjects 23 or 27 hours. Departmental requirements 49 or 45 hours. Free electives 24 hours. Total 96 hours.

**Summary for the Four Years**—Core subjects 65 or 69 hours. Departmental requirements 79 or 75 hours. Free electives 48 hours.

**Use of Free Electives**—The student is urged to use his free electives to broaden his education so as to acquaint himself somewhat with one or two fields outside his major interest. He is at liberty, however, to use a part or even all of his free electives in his major department.

### REQUIREMENTS FOR GRADUATION

**The Two-year Course**—A student must do full work in residence during at least three quarters before being granted a certificate of graduation from the two-year course. Thus, at least forty-eight of his ninety-six hours may be granted on advanced standing or for extension courses. Applications for graduation must be filed with the registrar at least 30 days before the close of the Quarter in which the diploma is to be granted.

**Group Courses**—Each student is required to select one of the group courses given in detail under the departments of the College. If a student has taken courses elsewhere similar to those specified in his group course, he may, with the consent of the head of the department in which he is taking his course, be allowed to substitute the work he has already had for Colorado State Teachers College work. The student may not, however, be excused from the "core required subjects" except by the heads of the departments giving those courses.

**Diploma**—The diploma granted upon the completion of the two-year course is a life certificate to teach in any kind of school in Colorado, and is honored in many other states.

**The Three-year Course**—A student who comes to the College with two years of advanced standing from another college or normal school may secure the Colorado Life Certificate by doing three quarters of residence work and meeting the requirements of the group course in which he or she is specializing.

**The Four-year Course**—At least three quarters of residence study are required for the A.B. degree. For graduates of the two-year course in this College, two quarters of additional residence study are required.

**The Fifth-year-Course**—See the Graduate School pages 31 to 33.

**Diploma and Degree.**—At the end of the fourth year of study, and upon completion of 192 quarter hours of credit, the degree of Bachelor of Arts (A.B.) in Education will be conferred, and a diploma, which is a life license to teach in the public schools of Colorado, will be granted to all students who have completed the requirements of the course they are pursuing.

**Time Limits for Completing a Course**—A student is allowed four years after beginning resident work on a two-year course in which to complete that course, and another four years to complete the work of

the third and fourth years after having enrolled in the third year of one of the group course. This extension of time is made to take care of those who must teach between the years of resident work. Thus, a student selecting the General Course in September, 1916, would have until the end of the Summer Quarter of 1920 to complete the **two-year course** thus selected. Failing to complete the course within that time he or she would be required to complete one of the courses of study in effect in the Yeak Book current at the time of his or her application for graduation. If such a student completed the two-year course on or before September, 1920, then he or she would be required to elect one of the senior college courses of the year 1920-21 and complete all requirements of the course thus selected for the A. B. degree. This course would have to be completed within another four years (that is, September, 1924).

**Transfer of Credits from Other Colleges**—Since Colorado State Teachers College is a college for training teachers, its courses of study are technical courses. Those who come from universities or liberal arts colleges with one, two or three years of advanced credits may find that some of these will not apply upon the course of study they may select here. Colorado State Teachers College accepts all credits from standard colleges at face value to apply as electives in its courses of study, but does not guarantee that a student having had a year's work in another school will be able to complete a two-year course here in three more quarters. Many students are able to apply their previous work upon the courses selected here without loss of time, but often students find it necessary to remain in Colorado State Teachers College somewhat longer than they had expected because of the number of required technical courses in a given curriculum.

**Regulation Concerning Overlapping of A. B. and A. M. Work**—No student will be granted the A. B. degree who has not completed 48 or more hours (three full quarters) in residence in the college. Twelve or more hours done in the group courses conducted in Denver, Pueblo and other neighboring cities by the resident faculty of the College may be counted as one (but only one) of the resident quarters. Three additional quarters in residence are required for the A. M. degree, with the same provision concerning outside group courses.

To prevent overlapping of time and consequent misunderstanding the Advanced Standing Committee grants advanced standing never in excess of 144 hours to applicants who fall short of admission to the graduate school. Students transferring to Colorado State Teachers College when they are within one or two quarters of the A. B. degree must expect to lose some time by making the transfer.

## Agriculture

The aim of the Department of Agriculture is to prepare teachers in rural, consolidated, and village schools.

Students majoring in this department will not only be prepared to teach the Agriculture course in the above named classes of schools, but will be given a general knowledge of rural life problems, such as will enable them to make the work in such communities function to the best advantage possible.

### Course of Study

Two years for majors in Agriculture.

In addition to the free electives, and the core subjects included in all the curricula as listed on Page 36, this department requires:

**First Year:** Agriculture 1a, 4, 5, Chemistry 1, and Botany, 1.

**Second Year:** Agriculture 6, 10a, 10b, 12, 13, and 3.

**1a. Animal Husbandry. Types and Market Classes of Live Stock—Four hours.**

A general survey of the development of the livestock industry and present conditions. The fundamentals of livestock judging and its relation to production. This work covers cattle, hogs, sheep, horses and mules.

**1b. Animal Husbandry. Types and Market Classes of Live Stock. Four hours.**

A continuation of 1a.

**3. Methods in Gardening and Truck Crops—Four hours.**

A study of the general subject dealing with the production of vegetables for the home as well as for the market. Lectures, demonstrations, reference reading, and practice work in gardening.

**4. Farm Crops—Four hours.**

An introductory course dealing with the most important farm crops with special reference to Colorado conditions.

**5. Soil Physics and Soil Fertility—Four hours.**

A study of the physical and chemical properties of the soil and their relation to soil management.

**6. Elements of Dairying—Four hours.**

The lectures take up the composition of milk; the Babcock test; handling of milk and making of butter on the farm. The laboratory work includes testing milk, operating separator, and making butter.

**9. Forage Crops—Four hours.**

This course deals with the principal forage and pasture crops, with special reference to their economic value in the production of beef, pork, and mutton.

**10a. Poultry Raising—Three hours.**

Deals with the principals of poultry house construction, and a study of the characteristics of the more common breeds and varieties.

**10b. Poultry Raising—Two hours.**

Feeding and general care; common diseases of poultry; incubating, brooding, and handling of farm poultry.

**11. Feeds and Feeding—Four hours.**

A study of the most successful and economical methods of feeding farm animals. Growth of the young animal is emphasized. Results of various experiment stations are compared.

**12. Farm Management—Three hours.**

A course in selecting the farm, planning the rotation, locating the fields, lots and buildings, and keeping the farm accounts. Farming is considered as a big business, and the need of a thoughtful plan in making it a success is carefully considered.

**13. Agricultural Education and Teaching—Three hours.**

This course deals with the educational aims in teaching Agriculture. Special attention is given to selection of material and subject matter that will correlate the work of the school life with life in the community and rural life institutions in view of modern demands.

**14. Breeds of Live Stock—Three hours.**

This course deals with the history, development and characteristics of the leading breeds of live stock; pedigree and performances of superior individuals among horses, cattle, sheep and swine.

**41. Beef Production—Three hours.**

A discussion of practical methods of beef production, including a consideration of successful practices in feeding for market, fitting for shows, and general care and management of beef cattle.

**42. Dairy Feeding—Two hours.**

This course applies the principles of animal nutrition to the special problems of feeding dairy cattle.

**50. Grain Judging—Three hours.**

A study of the important varieties of corn, oats, wheat, barley, and other cereals, and the commercial grading and marketing of grains.

## Biology

The biological department prepares teachers for the grades and high schools. It also endeavors to give a biological setting for the educational studies and for the activities of life.

The courses in zoology and botany are planned to combine laboratory and field work wherever this is possible, so that these studies of the laboratory may be correlated with the ecology, habits, and life histories of Colorado forms.

### Course of Study

Two years or four years for majors in Biology. In addition to the free electives, and to the core subjects included in all the curricula as shown on Page 36, the department of Biology requires:

#### Zoology the Major Interest

**First Year:** Physics 1, Nature Study 1, Zoology 1, Biology 2, Zoology 2, Zoology 3, Library Science 1, and Art 13.

**Second Year:** Chemistry 1 and 2, Botany 2 and 3, and Physics 4.

**Third Year:** Chemistry 108 and 109, Zoology 210, Physics 2, Biology 102, Zoology 7.

**Fourth Year:** Geography 8, Zoology 108 and 109, Chemistry 7, Bacteriology 101 and Zoology 5 and 101.

#### Botany the Major Interest

**First Year:** Botany 2 and 4, Zoology 5, Physics 16, Nature Study 1, and Art 13.

**Second Year:** Chemistry 1, Geography 8, Physics 4, Biology 102, Botany 3.

**Third Year:** Physics 1 and 2, Chemistry 108 and 109, Zoology 109, Bacteriology 1, and Botany 104 and 102.

**Fourth Year:** Botany 103 and 105, Zoology 1, 2, and 3, Chemistry 7, and Zoology 3.

### BIOLOGY

**2. Bionomics**—Four hours. Each Quarter. Required of first year students.

A study of some of the fundamental facts and laws of biology that have a bearing on education. It forms a basis for the intelligent study of other educational subjects. It considers: Mendel's Law, heredity, eugenics, evolution and civic biology.

**4. Biological Seminar**—One hour. Each Quarter. Required of Biological Majors.

### ZOOLOGY

**1. Invertebrate Zoology**—Four hours. Two-hour periods. Fall Quarter.

Morphology and natural history of the invertebrates with particular reference to the Protozoa, Porifera, and Coelenterates.

**2. Invertebrate Zoology**—Four hours. Two-hour periods. Winter Quarter.

Continues Course 1. A study of the invertebrates from the Platyhelminthes to the Cordates. Lectures and special topics.

**3. Vertebrate Zoology**—Four hours. Two-hour periods. Spring Quarter.

Vertebrate morphology, starting with the Protocordates and including the comparative work on the higher vertebrates. Lectures and special topics.

**4. Ornithology**—Four hours. By appointment.

Critical study of birds, the use of key, etc.

**5. Bird Study**—Four hours. Summer Quarter.

A study of Colorado birds. Consists of work in the field, combined with the laboratory and museum. The course is not a scientific study of birds, but rather, as the name implies, a study that should enable the student to identify the common birds and know something of their life histories, ecology, habits and economic importance. Students in this course may expect to use Saturday for some of the excursions that require time.

**6. Mammals**—Three hours. By appointment.

The systematic positions of the mammals, life histories, evolution, and geographical distribution.

**101. Zoological Technic**—One hour. Winter Quarter.

Work in making microscopic slides, preparation and preservation of specimens for class and museum use.

**107. Protozoology**—Three hours. Spring Quarter.

Study of the Protozoans of Colorado. Laboratory course.

**108. Animal Behavior**—Two hours. By appointment.

A study of the behavior of various animals, in response to natural and artificial conditions and stimuli. Forms a basis for the study of instinct, intelligence, memory and the learning process. Given by appointment. Laboratory course. Two-hour periods.

**109. Parasitology**—Two hours.

A study of animal parasites. Laboratory course. Two-hour periods.

**110. Problems in Zoology**—Four hours. By appointment.

A discussion of the present day problems in Zoology. For students majoring in the department.

**210. Comparative Vertebrate Anatomy**—Four hours. By appointment.

## BOTANY

**1. Elementary Botany**—Three hours. Spring Quarter.

Designed to meet the requirements of students preparing to teach in the elementary schools.

**2. General Botany**—Four hours. Fall Quarter.

Deals with the morphology, classification, ecology, and economic importance of plants. For majors in botany and students preparing to teach in high schools.

**3. Systematic Botany**—Three hours. Spring Quarter.

Prerequisite, some course in botany.

**4. Botany of Trees**—Two hours. Spring Quarter.

Considers the classification, morphology, growth, habits and characteristics of the more important trees found in the West. Recognition of trees in the field emphasized.

**101. Advanced Systematic Botany**—Three hours. Given by appointment.**102. Botanical Technic**—One hour. Winter Quarter.

A laboratory course in the preparation of botanical slides; methods of preservation, collecting, etc.

**103. Problems in Botany**—Four hours. By appointment.

A discussion of the present day problems in botany. For students majoring in the department.

**104. Plant Ecology**—Three hours. By appointment.

Deals with the effects of environmental changes on plants. Offered once every other year. Begins 1921. Spring Quarter.

## BACTERIOLOGY

**1. Bacteria, Yeasts and Molds**—Four hours. Winter Quarter.

Morphology, classification, cultivation, observation, fermentative processes and pathogenicity of micro-organisms. Special attention is given to the needs of Household Science Majors.

## NATURE STUDY

**1. Nature Study**—Four hours. Fall, Spring and Summer Quarters.

Aims and methods of nature work. Planning of courses and outlines. Laboratory and field work on nature topics.

**2. Nature Study**—Four hours. Spring and Summer Quarters.

Nature work of the spring, with laboratory and field work.

**3. Nature Study**—Four hours. By appointment.

Special work in nature study for students who care to prepare for nature teaching.

## BIOTICS

**101. Biotics**—Three hours. Fall Quarter.

History of man and his body from the standpoint of evolution. Derivation of the skeleton, organs and different systems. Study of the remains of the pre-historic men, their form and evolutionary significance.

**102. Biotics—Heredity**—Three Hours. Winter Quarter.

This course takes up heredity and its significance. Study of the laws governing it and their importance to the future of the races. Relation of biological laws and education.

**103. Biotics—Eugenics, and Special Topics**—One hour. Spring Quarter.

The modern trend for the improvement of the race. Study of the laws of heredity and some of the legislation for the application of these laws to the races. Consideration of some of the problems.

## Chemistry

It is the aim of this department to offer a schedule of courses which will fill the needs of the following classes of students:

A. Students taking chemistry as a requirement of the Home Economics Department. Such students will find the chemistry requirements outlined under their department.

B. Students desiring to specialize in chemistry in order to enter the chemical industries or the teaching profession. They will follow the program outlined below.

C. Students taking the new Science Course with chemistry as a minor subject. They will find the requirements in chemistry outlined under the Department of Physics or the Department of Biology.

In these courses the high school chemistry will not be allowed in lieu of General College Chemistry, as the latter course is more intensive and extensive than is the high school course.

### Course of Study

Two years or four years for majors in chemistry. In addition to the free electives, and the core subjects included in all the curricula as listed on Page 36, this department requires:

**First Year:** Nature Study 1, Physics 1, 2 and 3, and Chemistry 4, 5 and 6.

**Second Year:** Botany 2, and Chemistry 110, 111 and 7.

**Third Year:** Zoology 1 and 2, Chemistry 114, 114b and 113.



**Fourth Year: Chemistry 115, 116, 115b and 117.**

**1. General Chemistry**—Three hours. Fall Quarter. Fee \$3.00.  
Two lectures and one laboratory period on the theory of chemistry and non-metals.

**2. General Chemistry**—Three hours. Winter Quarter. Fee, \$3.00.  
Two lectures and one laboratory period. A continuation of Course 1.

**3. General Chemistry**—Three hours. Spring Quarter. Fee, \$3.00.  
Two lectures and one laboratory period on the chemistry of metals. A continuation of Course 2.

Courses 1, 2 and 3 are recommended to Home Economics students taking the two-year course, and to students taking chemistry as an elective.

**4. General Chemistry**—Four hours. Fall Quarter. Fee, \$4.00.  
This course covers the same text book work as Course 1 does, but requires more laboratory work. Two lectures and two laboratory periods.

**5. General Chemistry**—Four hours. Winter Quarter. Fee, \$4.00.  
A more extensive course than Course 2. Two lectures and two laboratory periods. Continuation of Course 4.

**6. General Chemistry**—Four hours. Spring Quarter. Fee, \$4.00.  
A continuation of Course 5. Two lectures and two laboratory periods. Courses 4, 5 and 6 are required of all science students (except those specializing in biology, who may elect 1, 2 and 3 instead; and of Home Economics students taking the four-year course).

**7. Qualitative Analysis**—Four or eight hours. Any Quarter. Fee, \$4.00.

A laboratory and consultation course on the separation and identification of the common elements. Eight hours attendance. Prerequisite, courses 1, 2 and 3, or 4, 5 and 6.

**108. Organic Chemistry**—Three hours. Fall Quarter. Fee, \$3.00.  
Two lectures and one laboratory period. A study of the hydrocarbons and their derivatives.

**109. Organic Chemistry**—Three hours.....Winter Quarter. Fee, \$3.00

Two lectures and one laboratory period. A continuation of Course 108. A study of the carbohydrates, proteins and benzene derivatives.

Prerequisites for 108 and 109 are 1, 2, 3, or 4, 5, 6. Recommended to students specializing in biology or physics.

**110. Organic Chemistry**—Four hours. Fall Quarter. Fee, \$4.00.  
Two lectures and two laboratory periods. Same text book work as Course 108, but more extensive laboratory work.

**111. Organic Chemistry**—Four hours. Winter Quarter, Fee, \$4.00.

Two lectures and two laboratory periods. A continuation of Course 110. Prerequisite for Courses 110 and 111 are Courses 4, 5, 6. Required of students specializing in chemistry and of four-year Home Economics students.

**112. Food Chemistry**—Three hours. Spring Quarter. Fee, \$3.00.  
Two lectures and one laboratory period. A study of foods, detection of adulterants, metabolism and dietary lists. Recommended as a general cultural course. Prerequisite for 112 is 1, 2, 108 and 109.

**113. Food Chemistry**—Four hours. Spring Quarter. Fee, \$4.00.  
A more comprehensive course than 112. Required of students specializing in chemistry and of the four-year Home Economics students. Prerequisites 4, 5, 6, 110, 111.

**114 and 114B. Quantitative Analysis**—Four or eight hours. Any Quarter. Fee, \$4.00.

Gravimetric and volumetric analysis. A laboratory and consultation course. Eight or sixteen hours attendance. Prerequisites, Courses 4, 5, 6, 7.

**115 and 115B. Industrial Chemistry**—Four or eight hours. Any quarter. Fee, \$4.00.

In this course the student may enter upon a study of any one or more of the following chemical industries: Steel, oil, coal, water, gas, fertilizers, cement, dyes, etc. A laboratory and consultation course. Prerequisites, Courses 4, 5, 6, 7, 114. Required of students specializing in chemistry.

**116. Agricultural Chemistry**—Four hours. Any Quarter. Fee, \$4.00.

An application of the principles of chemistry to soils, fertilizers, etc. Prerequisites, 1, 2, 3 and 7, or 4, 5, 6 and 7.

**117. Teaching of Chemistry**—Three hours. Any Quarter. Fee, \$3.00.

Discussion and reports on the teaching of high school chemistry, and practice in setting up demonstration apparatus. Required of chemistry students specializing to teach the subject.

**201. Advanced Inorganic Chemistry**—Three hours. Any Quarter. Fee, \$3.00.

Recitations and lectures on the most recent theories of Chemistry.

## Education

The aim of the Department of Education is to acquaint the student with the principles which underlie the science and art of education. Even though the courses must necessarily deal largely with the fundamental theories underlying educative processes, every course is so planned that the student should be able to make the application of these theories to actual practice in the school room. Several of the courses are offered for the purpose of meeting particular needs of teachers of practical experience.

### Course of Study

In addition to the free electives, and the core subjects included in all the curricula as listed on page 36, this department requires:

FOR SUPERINTENDENTS, HIGH SCHOOL PRINCIPALS, SUPERVISORS AND TEACHERS

#### Two Years

First Year: Ed. 32, Ed. 12, Ed. 33, Libr. Sci. 1, Psych. 3.

Second Year: Ed. 1, Ed. 15.

FOR KINDERGARTEN TEACHERS

#### Two Years

First Year: Ed. 51, Ed. 52, Ed. 1, Music 2a, Libr. Sci. 1, Art 2, Ind. Arts 1, Nat. Study 1.

Second Year: None.

FOR PRIMARY TEACHERS

#### Two Years

First year: Ed. 3, Ed. 51, Ed. 1, Nat. Study 1, Ind. Arts 1, Music 2a, Lib. Sci. 1, Eng. 15, Art 2.

Second Year: Art 13.

FOR INTERMEDIATE TEACHERS

#### Two Years

First year: Ed. 4, Eng. 1, Nat. Study 1, Music 2b, Eng. 13, Lib. Sci. 1, Art 14, Geog. 12.

Second Year: Ed. 33, Math. 8, Eng. 15.

FOR JUNIOR HIGH SCHOOL TEACHERS

#### Two Years

First Year: Lib. Sci. 1, Eng. 15, Method Courses, 4 hours; Eng. 2.

Second Year: Ed. 113, Ed. 15, Method Courses, 4 hours.

## FOR COUNTY, CONSOLIDATED AND VILLAGE SCHOOL TEACHERS

**Two Years**

First Year: Ed. 21, Ed. 26a, Ed. 26b, Ed. 26c, Agri. 4, Music 1, Agri. 5, Agri. 1a, Eng. 13, Art 2, Eng. 15.

Second Year: Ed. 25, Ed. 1, Ed. 22, Ed. 15, Ed. 8, Sociology 18.

**For All Third and Fourth Year Students in Education**

Third Year: Ed. 142, Ed. 108 or 114, Ed. 101, Ed. 135, Psych. 107.

Fourth Year: Ed. 229, Biol. 102, Ed. Electives, 4 hours (for elementary teachers).

**1. Principles of Teaching and Observation**—Three hours. A study of the theory and practice of proper classroom procedure; a study of the making of lesson plans, their aims and functions; analysis of the various types of classroom procedure; the deductive and inductive lesson, the object lesson, the assignment lesson, the appreciation lesson, review and drill exercises, the socialized recitation and the project method. These various types of lessons are demonstrated by actual recitations in the elementary training school. This course requires from sixteen to eighteen systematic observations of the training teachers in which a careful study is made of each recitation in individual conference with the training teacher observed.

This course is prerequisite to student teaching in the elementary training school.

**2. Student Teaching in the Elementary Training School**—Hours according to schedule. Required of all Junior College Students. Second year.

This course will include conferences, observation and teaching.

**3. Primary Grade Methods**—Four hours. Fall and Spring Quarters. This course should be taken previous to student teaching.

In this course the needs of the child entering school for the first time will receive special attention. The latest and most scientific articles on primary methods will be read and discussed, and a resume of methods and materials for all primary work will be included. Observation of classes.

**4. Intermediate Grade Methods**—Four hours. Fall and Winter Quarters. This course should be taken previous to student teaching.

This course will deal with problems of instruction in intermediate grades. The best material and devices for the teaching of Arithmetic, Geography, History, Writing, Reading, Composition, and Spelling will be considered. Recent books and magazine articles will be discussed in class. Demonstration classes.

**7. Practical Projects in Primary Grades**—Three hours. Three days a week. Spring Quarter.

This course will deal with practical projects in the work of the primary grades.

**8. Educational Values**—Three hours. Every Quarter. Required of all students first year.

The purpose of this course is to give the student a critical attitude toward the material presented in the various school subjects. Each subject of the elementary school will be considered as to the reason it has for a place in the curriculum today; how it has been justified in the past; and how it may be presented now so as to be more fully justified. Recent magazine articles and textbooks will be studied with a view of developing the attitude of looking for the material which is of greatest educational value of the child.

**10. The Elementary School Curriculum**—Three hours. Three times a week. Every Quarter. Required of all students, second year. (Ed. 26a or b may be substituted.)

This course will deal with the aims, materials and methods of the elementary school. The course should make the student intelligently critical of programs of study in the elementary school.

**12. Current Movements in Social Education**—Three hours. Fall Quarter.

The purpose of this course is to acquaint the student with some of the recent movements in the field of education. This course will include a discussion of such subjects as the following: The school as a social center; open-air schools; school credit for industrial work in the home; and other subjects of current interest.

**13. The Teaching of Spelling**—Two hours. Mr. Armentrout.  
(Offered on demand.)

The purpose of this course is to present the most reliable and certain facts in teaching of spelling and to present them in their relation in the practical problems which the teacher has to face every day in the class room. The following problems will be discussed: The selection and classification of words; testing for word difficulty; a psychological basis of spelling; the presentation of words; the prevention and treatment of errors; the measurement of spelling ability; factors affecting spelling ability.

**15. Vocational Guidance**—Two hours. Spring Quarter.

This course will deal with the place of vocational guidance in public school systems. Among other subjects it will treat of the need and value of the study of occupations, vocational analysis, opportunities for vocational education, opportunities for employment, the work of placement and vocational bureaus and various guidance agencies in this and other countries.

**16. Girls' Camp Fire Work**—One hour. Every Quarter.

This course is intended for those who wish to become Camp Fire Guardians. Groups will be organized into regular camp fires and do the work usually required of girls in such groups.

**17. Boy Scout Work**—One hour. Every Quarter.

This course is intended for those who wish to become Boy Scout Masters.

**21. County School Problems**—Three hours. Fall Quarter.

This course considers the problem of the county school, the teacher, the child, the school board and the community.

**22. Student Teaching in County Demonstration Schools**—Four hours. Every Quarter.

Several county schools, at a convenient distance from the College, are being used for the special training of teachers. The Demonstration Schools are taught by successful, well trained and expert teachers. Students who desire special preparation for country schools may teach their first term in the Training School or teach one month in the Demonstration Schools as an assistant or helper to the regular teacher. All of these schools have teachers' cottages on the school grounds where the regular teacher and the student helpers live. The course of study being pursued at the College can be done in non-residence, during the month spent in observation and practice teaching in the Demonstration Schools. The same credit will be given this work as is given practice teaching in the Training School at the College. One month in the Demonstration Schools and one quarter in the Training School are required of students who may anticipate teaching in rural and village schools.

**25. Administration of Consolidated and Village Schools**—Three hours. Fall Quarter.

This course is a study of the history of county school organization, consolidation and administration. It aims to meet the needs of county superintendents, rural supervisors, teachers, principals of consolidated schools and others interested in special problems of country life. It will include studies and special researches in the redirection of village and community life, and a discussion of forward movements in legislation as they affect the education of children outside of large cities.

**26\*. (a and b) The County School Curriculum and the Community**—Three hours. Winter and Spring Quarters.

This course will present the problems of the teacher who desires to instruct country children in terms of their environment. Methods and materials for such instruction will be outlined and discussed. Special attention will be given to ways and means for vitalizing the subjects in the course of study.

**32. History of Education in Ancient and Medieval and Renaissance Times**—Three hours. Fall Quarter.

This course will consist of a brief study of primitive Hebrew, Greek, Roman, and early Christian Education, showing the trend of educational thought, the types of schools which grew up, and the relation of Christian thought and Christian schools to pagan learning. The Renaissance will be studied with special reference to the fundamental changes that took place in educational ideals and aims and in religious thought; the effect of these upon the curriculum and upon educational institutions, and the problems which the Renaissance movement created for modern education.

\*Accepted as substitute for Ed. 10.

### 33. History of Modern Education—Three hours. Winter Quarter.

This course will be introduced by a brief review of the Education of the Renaissance to furnish the setting for the study of the trend of modern education. The main part of the course will be devoted to such subjects as the development of the vernacular schools, the early religious basis of elementary and secondary schools, and the transition to a secular basis, together with the educational philosophy of such men as Comenius, Locke, Rousseau, Pestalozzi, Herbart and Froebel.

### 44. Social Education. One hour. Every Quarter.

This course is intended as a clearing house for students who elect to carry on club and class work in connection with the Community Co-operation Plan. A study will be made of educational problems involved in club and class organization and management.

### 45. Community Co-operation. One hour. Every Quarter.

All students engaged in work under the Community Co-operation Plan will enroll under this catalog number in order to allow proper record in the office.

### 51. Story Telling, Songs and Games for Kindergarten and Primary Children—Four hours. Fall and Spring Quarters.

A study and classification of the different types of stories, songs and games, according to their fitness for various ages and purposes.

### 52. Kindergarten Curriculum and Use of Materials—Four hours. Fall Quarter.

A study of the growth of the kindergarten, its relation to the first grade and the best material selected in order to meet the various needs of the child.

### 101. Principles of Teaching in High School—Four hours. Winter Quarter.

This is a course in methodology as the subject relates itself to the curriculum of secondary schools. Every phase of the work that is being done in the Secondary Training School is discussed in the more recent lights and development of secondary education. This course is an integral part of the plan for training high school teachers and is a prerequisite to student teaching in the Secondary Training School.

### 102. Student Teaching in Secondary Training School—Four hours. Every Quarter.

Student teaching in the Secondary Training School consists of teaching, observation, supervision, lesson planning, assigned readings, and individual conferences with the training teacher and general conferences with the principal of the High School and the director of the Training Schools. Student teachers spend approximately one-half of their time in actual teaching under the supervision of the training teacher and the remainder in observing the training teacher and in taking part in the recitation as a member of the class. Teaching is to be assigned in terms of problems or units, each problem or unit to occupy at least five consecutive recitations or as many more as the training teacher may think necessary.

### 103. Advanced Student Teaching in Elementary Training School—Four hours. Every Quarter.

### 104. The Project Method of Teaching—Offered on demand.

The purpose of this course is to study and define the project and project method from a critical point of view and to discuss the reorganization of the curriculum on the project basis. A study and criticism of current definitions of a project will be made. Since a knowledge of the historical background is necessary to a proper understanding of the term, the history of the project will be developed. A study of the fundamental principles underlying the project will show that the method is not new, but is a product of evolution. The project method aims to present problems and situations not essentially different from those of life; to prevent subject matter from being isolated from the situations requiring its use; to present subject matter in such a way that the mental reactions produced will be the sort of reactions called for in life; to bring knowledge to the learner in the natural setting of a problem for which the learner feels a real need. A study and discussion will be made of the limitations of the project method in organizing educational practice on the basis of real problems. Not all the material in any given subject can be taught by the project method. At times it may be uneconomical to use the project method. A study will be made of the relation of the project method to other types of teaching, such as the question method, the topic method, and the drill method. The purpose of this study will show that each type is best adapted to certain phases of subject matter. An application will be made of the project method to certain units of subject matter in the Elementary and Secondary Schools.

**108. Educational Supervision—Four hours. Winter Quarter.**

This course will deal with problems of supervision in school systems. It will be of especial value to those who expect to become superintendents or supervisors.

**109. High School Supervision—Hours to be arranged. On demand.**

Persons who have shown an unusually high degree of efficiency in high school teaching may be allowed to assist in the supervision of the high school work. This training will afford them a more comprehensive view of the work and practice in the supervision of the training of younger teachers. This experience is intended primarily for those who are preparing themselves for principals and superintendents or to fill other positions of responsibility in public school work.

**110. Supervised Study—Two hours. Twice a week. On demand.**

This course will deal with the entire field of supervised study.

**111. Philosophy of Education—Four hours. Spring Quarter. Senior College required.**

This course is designed to set forth the underlying principles of educational theory. It treats of the theory of instruction and training with the child as the concrete basis; the aim and meaning of education; educational values; the theory of management and control; and the technic of practice. Some of these are discussed very briefly as they form the basis of other courses. Practical applications of theory are constantly made.

**112. School House Construction—Two hours. Twice a week. (Not offered in 1921-22.)**

This course will deal with practical problems in the planning and building of school houses.

**113. Organization and Administration of the Junior High School—Three hours. Fall Quarter.**

In this course the following points will be considered: Organization; standards for judging junior high schools; historical development; the program of studies; the daily schedule of classes; courses of study for the various subjects; the qualification of teachers, etc. After many representative junior high schools of the United States have been considered from the above mentioned standpoints, each student will arrange a program of studies, and a course in one subject for a junior high school in some designated community.

**114. Primary Supervision—Two hours. On demand.**

This course is intended to meet the needs of kindergarten and primary supervisors.

**116. The High School Curriculum—Four hours. Winter Quarter. Required fourth year.**

In this course a practical study of the curricula of various small high schools and junior high schools of this and other states will be made. Educational values and the needs of the community will be considered in the course. A detailed course of study for both the junior and the senior high school will be outlined by each student.

**120. High School Administration—Four hours. Spring Quarter.**

This course will deal with the organization, management and administration of the high school, a critical examination of one or more typical high schools, emphasizing courses, programs of study, daily schedule of classes, records and reports, equipment, the work of the teachers, and other similar matters of high school administration.

**125. Education for the Physically Handicapped—Two hours. Spring Quarter. Every other year. (Not offered in 1921-22.)**

A study of the instruction and methods employed in the education of the physically handicapped, especially the deaf, dumb, blind and crippled.

**130. County School Supervision—Three hours. Winter Quarter.**

A course intended primarily to give a comprehensive grasp of American rural history, and a brief study of the rural educational systems of this and other countries. After the problem is considered in its historical and sociological aspects resulting from a long national evolution, the present as well as the best type of rural school will be studied as a factor in preparing for an efficient citizenship. The fundamental needs in rural education, the recent rural life movement, the redirection of the school, its legitimate functions and revitalizing agencies will be correlated with existing conditions in Colorado and the West and with the social and historical development of the country.

**135. Educational Classics—Four hours. Spring Quarter.**

Such classics as Plato's "Republic," Rousseau's "Emile," Pestalozzi's "Leonard and Gertrude," and Spencer's "Education" will be considered (a) as interpretations of educational practices of the various periods of history represented and (b) as representations of theory related to present day education.

**142. Educational Administration—Four hours. Fall Quarter.**

This course is designed primarily for students preparing themselves as principals, superintendents and supervisors. After making a survey of the field of educational administration, the student may select the line of administration in which he is most interested for study and research.

**143. The Federal Government in Education—Four hours. Winter Quarter.**

This course treats of the efforts of the Federal Government to aid the states in education.

**147. Educational Surveys—Three hours. Fall Quarter.**

In this course an opportunity will be given to study the technique of conducting surveys, the surveys which have been made, and the application of these surveys to educational thought and practice.

**152. Principles underlying the Education of Children in the Kindergarten and Primary Grades—Three hours. Spring Quarter.**

This course is intended to be of help to kindergarten and primary teachers and supervisors.

**153. Kindergarten Materials. (A continuation of Ed. 52.)—Four hours. On demand.**

A study of the instincts and interests of children and how to meet and use these instincts and interests in the Kindergarten and Primary Grades.

**154. Kindergarten Seminar.—On demand.**

A study by each student of some one activity in the Kindergarten.

**217. Vocational Education—Three hours. Winter Quarter.**

A discussion of the main factors essential in vocational education.

(a) Demands and needs interpreted in the social life of the people.

(b) The ability of the public school to meet these demands by means of public school education.

(c) Local attempts being made to meet these demands.

**223. Research in Education—Hours dependent upon amount of work done. Every Quarter.**

This course is intended for advanced students capable of doing research in educational problems. Each student may choose the problem of greatest interest to him, provided sufficient opportunity is at hand for original investigation. The results of such research are to be embodied in a thesis. Conference course at hours convenient to instructor and student.

**228. Comparative School Systems—Four hours. Winter Quarter. Every other year. (Not offered 1921-22.)**

This course will include a study of European systems of education, particularly the German, French and English, for the sake of a comparative basis and the suggestions that they furnish for the solution of current problems in American administration.

**229. Current Educational Thought—Four hours. Spring Quarter.**

This course will consist of reviews and discussions of recent books in the various fields of education.

**246. Educational Problems—Four hours. Fall Quarter. Every other year. (Not offered 1921-22.)**

This course is intended for advanced students who wish to study in detail such subjects as the following: The school as an institution; learning by doing; flexibility of promotion; the place of method in the school room; the school as a unit of supervision; practical correlation of school and community work.

## Educational Psychology

The courses of this department have been arranged with the general purpose of making the student familiar with the important contributions which psychology has made to such phases of education as school organization and administration, the aims of education, and the best means and methods of realizing these aims. The whole public school system is viewed from the standpoint of the nature and needs of the child. An attempt is made to point out what the schools should be in order to preserve the child's physical and mental health, respect his native capacities and tendencies, secure his normal development, utilize his most natural modes of learning, and promote and check up the efficiency of his responses. More specific statements of the purposes of the department are given below in the descriptions of the courses.

The department offers two curricula, the one in Psychology and the other in Special Schools and Classes. The first prepares the student to teach psychology in normal schools and high schools and to fill such positions in clinical psychology and tests and measurements as are developing in connection with public school systems. The second prepares the student to take charge of special schools and classes, especially such as are designed for backward and feeble-minded children. Students who elect either of these curricula are advised to take at least six courses of the curriculum of some other department.

### Course of Study

#### Four Years for Majors in Psychology

In addition to free electives, and the core subjects listed on page 36, this department requires:

**First Year:** Library Science 1, and Psychology 1 and 110.

**Second Year:** Psychology 3.

**Third Year:** Psychology 104, 105, 106, 107 and 109.

**Fourth Year:** Psychology 108a, 108b, 111, 212 and 109.

Students who wish to major in the curriculum for teachers of special schools and classes will take Psychology 112, a course in eugenics and a course in construction work in place of psychology 105, 108b and 212. They will also be held for some practice teaching in special classes.

Students who wish to specialize in the department, but find it impossible to remain at school four years, will be permitted to elect advanced courses.

**1. Child Hygiene—**First year. Three hours. Full quarter. Required of students who specialize in any of the curricula of the Training School.

The main purposes of this course are: (a) to point out how the child's school progress and mental and physical development are arrested, and how his health and behavior are impaired by the physical defects which are very prevalent among school children; (b) to discuss the causes of defects, the methods of preventing and detecting them, and the measures which are required for an effective amelioration or cure.

The following topics will be treated: educational and economic values of health; the need of health conservation; deformities and faulty postures; air requirements; malnutrition and school feeding; hygiene of the mouth; enlarged adenoids and diseased tonsils; defective hearing; defective vision.

#### **2. Educational Psychology—**

**a.** Three hours credit, four hours recitation. Required of all students. Second year. Full quarter.

The purposes of this course are: (a) to make the student familiar with the child's capacities, tendencies and native responses and to show him how they, and the nature and order of their development, are involved in the process of educating the child; (b) to discuss such conditions of the school room and school activities as will avoid fatigue and promote work.

The following topics will be treated: The child's native equipment; mental work and fatigue.



b. Three hours credit, four hours recitation. Required of all students. Second year. Full quarter.

Purposes of the course: (a) to acquaint the student with the various modes of learning and the conditions which facilitate learning; (b) to discuss the nature of individual differences and point out their significance for instruction and the arrangement of school work.

General topics: The psychology of learning; individual differences.

**3. Child Development**—Second year. Four hours. Spring Quarter.

The purposes of this course are: (a) to point out the child's requirements during the different stages of his physical development; (b) to describe the nature of the child's mental development and discuss the kind of school work which is adapted to him in any stage of development.

The following topics will be treated: Purposes and methods; anthropometrical measurements and growth; the development of attention and sense-perception; instruction in observation; the development of memory, imagination and thinking; the psychology of lying; the growth of feelings and ideas; volition, suggestion and interest.

**104. Psychology of Elementary School Subjects**—Third year. Four hours. Required. Winter Quarter.

The purposes of this course are (a) to make an analysis of the school subjects with the object of determining what mental processes, and modes and conditions of learning are involved in studying them; (b) to review the results of experimental studies on the methods of teaching and learning the school subjects; (c) to discuss the necessity of varying the methods of teaching, and learning the school subjects with the progress made and with individual differences in children; (d) to criticize methods of instruction in the light of individual requirements, the result of experimental studies, and the mental processes involved in a given subject.

Topics treated: The elementary school subjects.

**105. Psychology of the High School Subjects**—Third year. Four hours. Required of students preparing to teach in the high school in lieu of Course 104. Winter Quarter.

The purposes of this course are: (a) the same as those enumerated in Course 104; (b) to familiarize the student with educational tests which are designed to measure the level of the child's performance in the high school subjects.

Topics treated: The high school subjects.

**106. Clinical Psychology**—Four hours. Winter Quarter.

The purposes of the course are: (a) to teach the student how to determine the mental status of a child thru first-hand observations, tests and experiments and thru the collection of hereditary, developmental and environmental data pertaining to the child; (b) to show how we may learn about the child's mental status from the effects of a prescribed course of treatment; (c) to show the social, racial and educational significance of varying degrees of mentality.

The following topics are treated: Methods and purposes of clinical psychology; mental classification of children; pathological classification of the feeble-minded; the treatment of special classes of children; social, racial and educational aspects of feeble-mindedness; mental characteristics of the feeble-minded.

**107. Mental Tests**—Four hours. Fall Quarter.

The purposes of the course are: (a) to make the student familiar with the means and methods which are employed to determine the child's general intelligence and the efficiency of his individual mental processes; (b) to point out the social, educational, psychological, and vocational significance of tests.

Topics treated: Various forms of individual tests, such as the Binet series and its modifications; various forms of group tests, such as the Army, Otis, National, and Pressey tests; tests of perception, memory, imagination, thinking, attention, psycho-motor control, and various combinations of mental processes.

**108a. Educational Tests and Measurements**—Four hours. Fourth year. Required. Fall Quarter.

Chief purpose of the course: (a) to give the student a working knowledge of the best instruments for measuring the child's school progress and his performance level in the school subjects; (b) to discuss the methods of using the educational tests and tabulating the results; (c) to point out their educational significance in all of its phases.

Topics treated: Tests and standards of reading, writing, spelling, arithmetic, geography, and all the other elementary school subjects.

**108b. Educational Tests and Measurements**—Four hours. Fourth year. Required of students who will teach in the Senior High School.

The purposes of this course are the same as those for 108a. The topics treated will be tests and standards of the high school subjects.

**109. Psycho-clinical Practice**—Two or more hours. Fall and Spring Quarter.

The purpose of this course is to give the student practice in determining the mental and physical status of children by means of tests, examinations, and the collection of other data. In this course an opportunity is given to put into practice much of the knowledge obtained in Courses 1, 106 and 107.

**110. General Psychology**—Four hours. Any Quarter.

Purposes of the course: (a) to make the student acquainted with psychological theories and concepts; (b) to discuss the nature of the mental processes; (c) to show what relations they bear to each other, due to the nervous system, to the stimuli of the external world, and to the various forms of mental and physical behavior.

Topics: Those which are listed in the text books on general psychology, such as the nervous system and its functions, sensations and images, attention, perception, memory, reasoning, instinct, feeling, emotion, and volition.

**111. Speech Defects**—Two hours. Winter Quarter.

Purposes: (a) to make the student acquainted with such speech defects as aphasia, stuttering and lisping; (b) to show how these defects handicap the child in school and in life; (c) to discuss and demonstrate the methods of remedial and curative treatment.

**112. History of Auxiliary Education**—Two hours.

Purposes: To make the student familiar with the nature, origin, causes and development of the schools for backward and feeble-minded children.

**113. Vocational Psychology**—Four hours. Spring Quarter.

The purpose of this course is to make the student acquainted with employment psychology, personal work in industry and the application of psychology to industry and the vocations in general.

**212. Psychological and Statistical Methods Applied to Education**—Four hours. Spring Quarter.

Purposes: (a) to give school officials the technique necessary for the solution of educational problems involving the accurate measurement of mental processes; (b) to present the statistical methods employed in the treatment of educational data.

**213. Conference, Seminar, and Laboratory Courses**—Hours depending upon the amount of work.

Purposes: To make possible more extensive and exhaustive work by the student on problems of special interest to him.

Topics: Formal discipline; sex hygiene; retardation; mental tests; learning; retinal sensations; space perception, etc.

## Ethics

In the courses given below it is hoped that two essentials in the training of a teacher—Character and Personality—may be fostered and improved. The young woman who starts out upon her teaching career with a good ethical foundation, and the advantage of a character, developed through right ideals of conduct and appreciation, has assets which are invaluable.

**1. Ethics**—Personal Talks on Right Living—Two Periods. One hour credit. Every Quarter.

In this course it is the aim of the dean of women to get in touch with the personal side of each student. Living conditions will be taken up, and all matters pertaining to conduct will be open to friendly discussion.

**2. Ethics**—Ethical Culture. Two Hours. Every Quarter.

A course designed for instruction in the etiquette of every day life; a general appreciation of culture and its necessity in the training of a teacher. Lectures, book and magazine articles, reviews and reports.

## Fine and Applied Arts

The Department of Fine and Applied Arts aims to prepare teachers to meet all the demands made upon regular grade teachers in public and private schools from the kindergarten up through the high school in all branches of art, and to train special students to act as departmental teachers and supervisors. The courses are open as electives to all students of the College.

The department is well equipped. In addition to the regular equipment there is a large museum of ceramics, original paintings, reproductions, and copies of masterpieces, bronzes and tapestries. The Museum of Ceramics is a rare collection of pottery, containing ancient and modern specimens from different countries, including Japan, Austria, Holland, France, England and America.

### Course of Study

Two or four year course in Fine and Applied Arts.

In addition to the free electives and the core subjects, included in all the curricula as listed on page 36, this department requires:

**First Year:** Art 1, 2, 3, 4a, 14, 16 and Industrial Arts 10.

**Second Year:** Art 4b, 5, 6, 7, 9, 11, 12, 13 and Industrial Arts 5.

**Third Year:** Art 8, 100, 101, 102, 104 and four hours of art to be selected by the student.

**Fourth Year:** Art 104a, 105, 201 and six hours of art to be selected by the student.

**1. Public School Methods—Four Hours. Fall Quarter. Fee 50c.**

Freehand drawing, perspective, color, composition and design adapted to the needs of intermediate and grammar grades. Mediums: pencil, charcoal, water, colored chalk.

Principles of teaching in connection with each unit of work.

**2. Primary Grade Methods—Four hours. Fall Quarter. Fee 50c.**

Freehand drawing, perspective, color, composition and design, adapted to principles of teaching in connection with each unit of work.

**3. Freehand Drawing—Four hours. Each Quarter.**

Drawing in charcoal, pencil and colored chalk from nature and from still life.

**4a. Applied Design—Four hours.**

Creative design with relation and application to textiles and other mediums. Principles of design.

**4b. Design—Four hours. Fall Quarter.**

Theory of design. Development of the principle of design through study of plant, bird, animal and geometric motifs.

**5. Water Color Painting—Three hours.**

Still life, flowers, landscapes and birds suggest the subject matter of this course. Color harmony, composition.

**6. Art Appreciation—One hour. Winter Quarter.**

The main principles of esthetics underlying the fine arts are taken up in illustrated lectures. The course is planned with a view to increasing the student's power to select and enjoy good examples of fine art.

**7. Constructive Design—Four hours. Winter Quarter. Fee 50c.**

Design as a factor in construction; reed and raffia work; construction of mats, bags, purses, book covers, etc., in leather, with tooled or colored designs.

**8. Pottery—Four hours. Fee, \$2.00. Each Quarter.**

Vases, bowls, decorative tiles, etc., are made. The department is equipped with a modern kiln, and the work of students is fired and glazed. A variety of glazes with the different colors is used. Modern shapes and decorations.

**9. History of Art—Two hours. Winter Quarter.**

The evolution of art from the beginning of history; the growth of the great schools and their influences; the study of the important masters, their personalities as related to their art, and their work as an index to the time in which they lived; illustrated by a large collection of photographs and lantern slides. Lectures with related reading.

**11. History of Architecture—One hour. Spring Quarter.**

Illustrated lectures on the development of architecture; interpretations of famous buildings.

**12. Household Art Design—Four hours. Spring Quarter.**

The execution of designs for interior decorations and costumes.

**13. Applied Art for Primary Grades—Four hours. Winter Quarter. Fee \$1.00.**

This course includes paper construction, cutting, design, stick-printing, weaving, modeling, and toy making.

Relation of art to other subjects.

**14. Applied Art for Intermediate and Grammar Grades—Winter Quarter. Fee \$1.00.**

Application of design and color to paper construction, basketry, book-binding, block print, toys. Relation of art to other subjects of the curriculum.

**15. Pottery—Two hours. Fee \$2.00. Winter Quarter.**

A course which stresses the decoration and glazing of pottery.

**16. Antique—Four hours. Winter and Spring Quarters.**

Charcoal drawing from antique casts in outline and in light and shade. An intensive course requiring accurate drawing and close study of values.

**100. Methods in Art Supervision—Three hours. Spring Quarter.**

The supervision of art education in city systems; the planning of a course of study; methods of teaching.

**101. Drawing from Life—Four hours. Winter Quarter.**

Study from the costumed model. The student is allowed to choose the medium to be used.

**102. Commercial Design—Four hours. Winter Quarter.**

Design considered in its relation to advertising art. Posters, cover designs and various advertising problems are executed.

**104. Design and Composition—Four hours. Winter Quarter.**

The theory of space filling and color harmony; conventionalized plant motifs; lettering.

**105. Oil Painting—Four hours. Fall Quarter.****200. Oil Painting—Four hours. Each Quarter.**

This work may be done outside of regular classes, to suit the convenience of the student. Regular criticisms will be given by the instructor in charge. The student must submit satisfactory evidence of having had sufficient preparation for this course.

**201. Color Composition—Four hours. Each Quarter.**

An advanced study of color composition in oil or water color. Arrangements of form and color for decorative effect. Advanced poster design.

## Geology, Physiography and Geography

The courses listed in this department are not review courses covering the material taught in the elementary schools. Such review courses are listed in the High School department and no credit is given in them toward graduation from the College.

Geography is a definite science, in which the superstructure of commercial and human factors is built upon the underlying climatic and geologic causes. It is from this point of view that the work of the department is given.

### Course of Study

Two years or four years for majors in Geology, Physiography and Geography.

In addition to the free electives and the core subjects included in all the curricula as listed on page 36, this department requires:

**First Year:** Geography 7, 8, Nature Study 1, and History 10.

**Second Year:** Geography 4, 5, 12 and 52.

**Third Year:** Twelve hours of Geography selected by the student.

**Fourth Year:** Eight hours of Geography selected by the student.

**2. Physiography—Four hours. Winter Quarter.**

The work in this course is divided between topographic work, which embraces a study of topographic and geologic maps, and, in so far as possible, field trips to type regions. Four weeks of the twelve are devoted to the study of meteorology and the observation and prediction of weather phenomena.

**4. Regional Geography of North America—Four hours. Fall Quarter.**

The continent will be studied from the standpoint of its geologic and climatic controls and upon these will be built the economic and other human aspects. The continent will be divided regionally into climatic provinces which will be used as the starting point for the study of similar climatic provinces in other continents.

**5. Geography of the New Europe—Four hours. Winter Quarter.**

We endeavor to understand Europe in climatic and geologic terms of our own continent. The linguistic, economic, and other bases for the new countries of Europe will be studied.

**7. Geography of Commerce—Four hours. Winter Quarter.**

Climate as a crop control, mineral deposits as locators of cities and industrial districts, other causes for the location of the world's large cities, and the supplanting of water by rail transportation, with a study of the principal rail routes, will be some of the subjects considered.

**8. Human Geography—Four hours. Fall Quarter.**

The great subdivisions of mankind from the racial standpoint will be taken up, with a study of their physical and mental characteristics. The relation of man to his environment, as, for instance,—desert, tropical forest, etc., will be stressed. Required in the Intermediate, Sociology and History courses.

**12. Geography Method—Two hours. Winter Quarter.**

A course in which the history of geography teaching is taken up, followed by a discussion of the relative values of the various methods of presentation. The materials suitable for each school grade will be discussed.

**52. Geography of South America—Four hours. Spring Quarter.**

A course on the racial, economic, and political aspects of South American geography. Not given in 1923.

**53. Geography of Asia—Four hours. Spring Quarter.**

A course on the political, social and economic problems of the Orient, with especial reference to China and India. Not given in 1922.

**100. Geology—Four hours. Fall Quarter.**

Not so much a text-book course as an endeavor to get the kind of geology that will enable our Colorado teacher of mountain and plain to understand her environment in geologic terms and to incorporate this understanding in her nature study and geography teaching.

**103. Climatology—Four hours. Spring Quarter.**

The climates of the world with particular reference to their geographic influences will be the primary elements studied in this course. The basis for dividing the world into climatic provinces,—Oregonian, Californian, Canadian, Nevadan, etc., will be taken up in detail.

**113. Mathematical Geography—Three hours. Fall Quarter.**

A recitation course designed to cover such problems as proofs of the earth's rotation and revolution, the tides, the international date line, standard time belts, calendars, etc.

**120. Geography of Polar Lands—Two hours. Winter Quarter.**

This course refers to a part of the world usually ignored in the study of the continents. A discussion of the climatic factors in the Arctic and Antarctic regions will be taken up. The influence of these factors upon life on land and sea will be considered. The great resources of sea food yet untouched in the Polar seas, and the possible mineral resources upon the land will be studied.

**122. Biogeography—Four hours. Spring Quarter.**

The distribution of plants and animals emphasizing the main climatic and geologic controls in such distribution.

**130. The Islands of the Sea—One hour. Fall Quarter.**

A study of the various ways islands are formed as well as their relation to the continents in a biologic and social sense. The average geography does not study the outlying islands because it is too busy with the continents. This course is designed to fill this gap in the student's geographic knowledge—a gap that needs to be filled because of the strategic and historic importance of many island groups.

**144. Geography and Geology of Mountains—Two hours. Spring Quarter.**

A course that is planned especially with reference to the mountains of Colorado. Geologic folios and climatic and botanical data will be considered and the student will be referred to this material in our library. One field trip to the mountains is usually taken.

**150. Geography of Colorado—Two hours. Spring Quarter.**

A lecture course on Colorado geography touching the physiographic features of the state, the influence of the geologic past upon these features, weather phases and climate of Colorado, the main geographic controls in animal and plant distribution, Colorado man, past and present, and his distribution, the industries of the state and the geographic controls of industry.

## History and Political Science

This department offers courses in the two fields, History and Political Science, of such nature that they meet the needs of teachers in the elementary and high schools. The courses are arranged to cover the materials and methods which are most helpful in presenting the subjects of History and Civics in the schools.

In nearly every phase of school work the teacher utilizes the subject matter of history, either directly in teaching the subjects or as supplementary material. History furnishes the background for an appreciation of the varied interests of the school; it is the basis of much of our thinking; and more and more it is assuming a prominent place in our daily experiences.

The increasing interest in civics and citizenship is marked. All phases of governmental activity are growing in importance. These features of our experience are reflected in the school programs. The courses offered in this field are of practical value to public school teachers.

### Course of Study

#### Two Years and Four Years

In addition to the free electives, and the core subjects, included in all the curricula as listed on page 36, this department requires.

**First Year:** History 10, 11, 13, 27; Political Science 12, 26; Geography 8.

**Second Year:** History 4, 5, 6; Political Science 22, 25; English 16.

**Third Year:** History 107, 116, 117; Sociology 110.

**Fourth Year:** History 118, 124; Political Science 123; Sociology 230; English 106.

**4. Western American History—Four hours.**

The westward movement as an historical process; migration from the Atlantic to the Mississippi Valley; the Trans-Mississippi West; the history of Colorado as a part of the movement; the Pacific Coast and the dependencies.

**5. Early Modern Europe—Four hours.**

The development of the medieval period particularly affecting the people of modern Europe will be considered. The course will include the French Revolution and Napoleon. Interest will center around the social and industrial phases of the experiences of the people.

**6. Recent European History—Four hours.**

This is a continuation of Course 5. The period since Napoleon will be traced through the political, social and industrial developments. The experience of the people since 1870 will furnish the basis for understanding the more recent events. The relation of the people of the United States to the European conditions will receive attention.

**10. Social and Industrial History of the United States—Four hours.**

The current social and industrial conditions in the United States will be traced from their beginnings; European conditions which furnish traceable influences will be considered. Some of the subjects are the natural resources; the influence of cheap land; the effect of invention, machinery and science; the development of agriculture and manufacture; the rise of the great industries, capitalism, business combination and labor organization; the efforts of labor to better conditions.

**11. Commercial History of the United States—Four hours.**

English commerce in its effect upon colonization; the colonial commerce and its consequences; the several periods of American commerce, domestic and foreign; government aid; the consular service; the relation of commerce to business development; government supervision.

**12. State Government—Four hours.**

The organization and administration of state government. The government of Colorado will be the main interest of the course.

**13. The Teaching of History in Elementary School—Three hours.**

The history of history instruction in the schools; the aims and values of history instruction; the courses of study; methods and materials for the several grades of instruction; testing results; school problems related to history, such as, the place of history in the curriculum, and the relation of history to other subjects.

**22. Municipal Government—Three hours.**

The growth of cities; their relation to trade and industry; state control over cities; development of the American city; comparison of the American city with the European; recent experiences with the commission and city manager forms of government.

**25. Comparative Government—Four hours.**

The federal government will be studied in comparison with the governments of other important countries.

**26. The Teaching of Civics in the Elementary School—Two hours.**

The development of civics instruction from the study of the Constitution to the present community civics; the value of civics in education for citizenship; the purpose of instruction in government; courses of study; methods and materials for the several grades of instruction.

**27. Contemporary History—Three hours.**

The course is concerned with current interests in this and other countries; their growth and interpretation. It includes the reading of periodicals and recent publications, and class discussion.

**28. Ancient Social History—Four hours.**

This is a survey of the development of society among the early peoples, with emphasis on the social and economic phases.

**107. Modern England and the British Empire—Four hours.**

A course dealing with the political, social and institutional history of the English people since 1660.

**116. Spanish American History—Three hours.**

A course designed to show the growing relations between the United States and the republics to the south. In tracing the experience of the Spanish American people, attention will be given to the work of Spain in establishing the Empire, the movement for independence, the social, political and economic growth, international relations and the Monroe Doctrine, Panama and the purchase of the Danish West Indies, and the new Pan-Americanism.

**117. The Teaching of History and Civics in High School—Three hours.**

The development of instruction in these subjects in high school; their place in the high school program; aims and values of instruction; problems connected with the teaching of these subjects; the relation between history and civics teaching.

**118. Financial History of the United States—Four hours.**

The origin and growth of the currency, banking and revenue systems of the United States, with special emphasis on the tariff and currency systems; the recent achievements in the financial system as expressed in the federal reserve law, the farm loan law, financing of the war and the reconstructive programs.

**123. International Relations—Four hours.**

A study of the basic principles of international relations; the development and application of these principles in recent European relations; American international ideals as expressed in American diplomacy; the Monroe Doctrine, Pan-Americanism, the League of Nations, and disarmament.

**124. History of the Far East—Four hours.**

This is a study of the modern history of India, China, Japan and the adjacent islands, with reference to their relations with Europe and the United States.

**212. American Constitutional Development—Four hours.**

Origins of the Constitution; relation to state constitutions; the Articles of Confederation; making the Constitution; interpretation of the document by the makers; the period of misunderstanding; new interpretations of the principles of government; service of the courts; and the great cases which have grown out of the interpretation of the document.

**213. The Literature of American History—Four hours.**

A survey of American History with reference to the materials and problems in teaching history.

**215. Research in History.**

Students doing graduate work in history and political science may arrange work as desired.

## Home Economics

The Home Economics Course not only trains teachers of Home Economics, but also trains homemakers in the selection, use and care of materials for the home. It has as an ideal the establishment of sane standards of living, including the economic, social and esthetic sides of life.

It is the policy of the Home Economics Department to recommend as teachers of the subject only those students who have completed the four years course.

### Course of Study\*

In order to meet the requirements of the Federal Board for Vocational Education under the Smith-Hughes Act a special arrangement of the course of study for Home Economics students has been made as follows:

| First Year   |       |                |       |                |        |
|--|-------|----------------|-------|----------------|--------|
| Fall Quarter   |       | Winter Quarter |       | Spring Quarter |        |
| Chem. 1  | 4 hrs | Chem. 2        | 4 hrs | H. A. 3 or 1   | 3 hrs  |
| Eng. 4   | 3 hrs | Soc. 3         | 3 hrs | H. S. 3        | 4 hrs  |
| H. A. 1 or 3   | 3 hrs | H. A. 2        | 3 hrs | Eng. 3 or 5    | 3 hrs  |
| H. S. 1  | 4 hrs | H. S. 2        | 4 hrs | Elective       | 3 hrs  |
| Art 4  | 2 hrs | Art 12         | 2 hrs | Hyg. 7         | 3 hrs  |
| Physical Education is required each quarter of the first and second years, with or without credit. |       |                |       |                |        |
| Second Year  |       |                |       |                |        |
| Fall Quarter   |       | Winter Quarter |       | Spring Quarter |        |
| Biol. 2  | 3 hrs | Ind. Arts 5    | 4 hrs | Ed. 8          | 3 hrs  |
| Eng. 15  | 3 hrs | Eng. 16        | 3 hrs | Ethics         | 1 hr   |
| H. A. 4  | 4 hrs | H. A. 5        | 4 hrs | Chem. 112      | 3 hrs  |
| Chem. 108  | 3 hrs | Chem. 109      | 3 hrs | H. A. 6        | 4 hrs  |
| Elective   | 3 hrs | Elective       | 2 hrs | Elective       | 5 hrs  |
| Third Year   |       |                |       |                |        |
| Fall Quarter   |       | Winter Quarter |       | Spring Quarter |        |
| Household  |       | Bact. 1        | 4 hrs | Soc. 105       | 4 hrs  |
| Chemistry  | 3 hrs | Pysch. 2b      | 3 hrs | H. A. 109      | 4 hrs  |
| Psych. 2a  | 3 hrs | H. S. 103      | 4 hrs | Ed. 111        | 4 hrs  |
| H. A. 107  | 4 hrs | H. S. 108      | 4 hrs | Elective       | 4 hrs  |
| Elective   | 6 hrs |                |       |                |        |
| Fourth Year  |       |                |       |                |        |
| Fall Quarter   |       | Winter Quarter |       | Spring Quarter |        |
| Electives  | 4 hrs | H. A. 112      | 4 hrs | H. A. 113      | 4 hrs. |
| Physics 12   | 4 hrs | Teaching       | 4 hrs | Teaching       | 4 hrs. |
| H. S. 106  | 4 hrs | H. S. 107      | 4 hrs | H. S. 108      | 4 hrs. |
| H. Econ. 111   | 4 hrs | H. A. 110      | 4 hrs | Ed. 105        | 4 hrs. |

\*Students in this course may receive the Life Certificate to teach in Colorado at the end of the second year of the above course by electing eight to eleven hours of observation and teaching in the second year and by transferring Psych. 2a, Psych. 2b, to the first or second year instead of certain other subjects scheduled for those years. The student should understand, however, that she does not meet the requirements for a position in a Smith-Hughes high school until she has completed the full curriculum of four years.



## HOUSEHOLD ARTS

**1. Textiles—Four hours. Fall Quarter and Spring.**

This course includes the history and development of textiles, the study of fibers, the identification and economic use of fabrics.

**2. Design—Four hours. Winter Quarter.**

This is a fundamental course in theory and practice of design, the study of elements and principles of design.

**3. Garment Making—Four hours. Fall and Spring.**

This course teaches the fundamentals of plain, hand and machine sewing as applied to simple garments for adults and children; the use of commercial patterns and the operation and care of machines.

**4. Millinery—Four hours. Fall and Spring Quarters.**

This course includes a discussion of practical and artistic principles of millinery; designing and modeling hats of various types in paper and crinoline; making wire buckram and frames and the use of velvet, silk and straw in hat making.

**5. Drafting and Pattern Making—Four hours. Winter Quarter.**

This course teaches the making of patterns by drafting, modeling and designing. All foundation patterns are drafted to measurements of individual and fitted. From these, other patterns are made to be used in H. A. 6.

**6. Elementary Dressmaking—Four hours. Spring Quarter.**

Patterns designed and made in H. A. 5 are used for garments made in this course. This course establishes the fundamental principles in dressmaking and gives practice in the selection and purchase of appropriate materials and the application of the principles of design.

**107. Costume Design—Four hours. Fall Quarter.**

A course offering opportunity for solution of a great variety of problems in dress design; as design for various elements of dress, for different types of personality, for formal and informal occasions, for hats and accessories, etc.

**108. Costume Design 2—Four hours. Winter Quarter.**

A continuation of Costume Design 107. Designs draped in paper, cheese-cloth, cambric and various effective materials.

**109. Advanced Dressmaking—Four hours. Spring Quarter.**

This course includes work in tailoring as applied to women's and children's garments; the making of an afternoon and evening gown. Draped designs made in Costume Design 108 used as patterns in this course.

**110. Advanced Textiles—Four hours. Winter Quarter.**

This course deals with the chemical properties of textiles; the methods of cleansing fabrics; the study of dyes and dyeing of different types of fibers.

**111. Home Economics—Four hours. Fall Quarter.**

A lecture course on the history and growth of Home Economics; the relation of Home Economics subjects to education; the place these subjects should hold in the curriculum and the methods employed in teaching them.

**112. House Plans and Interior Decoration—Four hours. Winter Quarter.**

This course is a non-technical course in the construction of the house, but includes a study of plans, specifications, building materials; the planning of a house for a family which actually exists.

The instruction in interior decoration aims to give the student a thorough knowledge of theory and practice of the application of principles of design and color to interior decorations. House planned in H. A. 112, decorated in this course.

## HOUSEHOLD SCIENCE

**1. Food and Cookery—Four hours. Fall Quarter. Fee \$3.00.**

A general survey of the principles of cookery and study of foods.

**2. Foods and Cookery—Four hours. Winter Quarter. Fee \$3.00.**

Continuation and completion of H. S. 1.

**3. Cookery and Table Service—Four hours. Spring Quarter.**

Planning, preparation and serving of various types of meals. Special attention is given to care of dining room and table service.

103. **Dietetics**—Four hours. Winter Quarter. Fee, \$3.00.  
Study of food values, cost and adaptation to individuals and families.
104. **Catering—Planning and Serving Functions.**—Spring Quarter.
105. **Child Care**—Four hours. Spring Quarter. Prenatal care, child hygiene, care and feeding.
106. **Home Nursing**—Four hours. Fall Quarter.  
Care of sickroom, care of patient in the home, first aid.
107. **Home Management**—Four hours. Every Quarter.  
Sanitation and care of house. Living in practice cottage.
108. **Home Management**—Four hours. Spring and Summer Quarters.  
Care of family, family budget, relation of home to school, church and state.

## Hygiene and Physical Education

### Functions of the Department.

An immediate, and also an ultimate aim of Education is vigorous, aggressive health. This department's function in the institution is to assist in the realization of this aim through:

- (1) Health examinations of all students and specific hygienic instruction based on the findings in each case.
- (2) Personal health conferences with Medical Advisers for the purpose of assisting students to form wise health habits.
- (3) Promotion of health through directed physical activity, and through instruction in informational hygiene.
- (4) Sanitary supervision of the environment of the student group.

In addition to the above, the Department outlines a major course for those preparing for positions as teachers, or as supervisors of physical education in the public schools, or as playground directors.

As more than one-third of all the states have recently passed compulsory physical education laws requiring a definite program of physical education for all school children, the demand for trained teachers in this field exceeds the present supply.

### EQUIPMENT

The department is equipped with the necessary examination and class rooms, instructional apparatus, gymnasias, athletic fields and playgrounds to accomplish the functions outlined above. The United States Interdepartmental Social Hygiene Board makes a substantial appropriation to the institution for the purpose of strengthening the work of this department, and to assist it in working out better educational methods in Hygiene. This is one of twenty-six educational institutions in the country and the only one in Colorado assisted by this Federal Board.

### REQUIRED WORK

All first and second year students are required to take an active (exercise) course each quarter in residence. Where physical disability makes it inadvisable for a student to participate in the regularly organized class activities, work in a corrective class, or other special regimen, depending on the needs of the student, is prescribed. No one is excused from this requirement.

### GYMNASIUM DRESS

An approved gymnasium uniform is required in all activity courses. Satisfactory work **cannot** be done in regular street or school clothes.

## HEALTH EXAMINATIONS

A thorough health examination is required of each student as soon as practicable after registration. Matriculation is not completed until this examination has been made and recorded. The Medical Advisers keep regular office hours for free consultation with students concerning personal health problems. These examinations and conferences have for their object the prevention of illness and the promotion of vigorous health.

## COURSE OF STUDY

Two and four year courses for majors in Physical Education. The four-year course is recommended as best preparing students to enter this field of education.

In addition to the free electives, and the core subjects included in all the curricula as listed on page 36, this department requires:

**First Year:** Hygiene and Physical Education 1, 2, 5, 7, 103, 103a, 107a, and Library Science 1.

**Second Year:** Hygiene and Physical Education 3, 4, 8, 12, 108a, 112a, 114a.

**Third Year:** Hygiene and Physical Education 11, 104, 109, 113a, Educational Psychology 106 or 107, and one or more activity courses each quarter.

**Fourth Year:** Hygiene and Physical Education 6, 117, and Educational Psychology 109.

The courses offered by the department are divided into two classes as follows:

- I. Informational Courses.
- II. Practical or Activity Courses.

To comply with the college physical education requirement, the general student should select courses in the second group. Courses in the first group are intended primarily for major students, but may be elected by those in other departments. The technical courses for major students are listed in the second group and are open to other students only by permission.

## I. Informational Courses

1. **Physiology and Hygiene of Exercise**—Spring Quarter. First Year. Three periods. Three hours.

Lectures, demonstrations, recitations. A course for major students, but open to all.

2. **Anatomy and Kinesiology**—Fall Quarter. First Year. Three periods. Three hours.

Lectures, demonstrations, recitations. Use is made of skeleton, mannikin, charts and anatomical atlases in connection with text book assignments.

3. **Anthropometry and Physical Examinations**—Fall Quarter. Second year. Four periods. Four hours.

A lecture, recitation practice course. Principles and methods of making physical measurements; the determination of norms for different age groups; applications of principles to physical education problems; the detection and correction of common physical defects. Required of Physical Education majors the second year. Open to others who have had Biology.

4. **Play in Education**—Spring Quarter. Second year. Three periods. Three hours.

A discussion, reference, recitation course. Theories and applications of play in modern education; the place of play in the daily school program; play and athletics as training for citizenship; the practical administration of play and athletics from an educational viewpoint, are some of the topics considered. A second year major course.

**5. History of Physical Training**—Winter Quarter. First year. Two periods. Two hours.

The place given to Physical Education in the life of different nations. Beginnings of modern physical education; recent rise of play and recreation movement; effect of the World War on development of physical education in the United States and other countries, are among the topics considered.

**6. Research in Physical Education.**

Qualified Senior College and Graduate students may select a subject for research in Physical Education. Fourth year majors are required to write a thesis on a selected subject. Credit hours depend on quality and amount of work accomplished.

**7. General Hygiene**—Each Quarter. Three periods. Three hours. Junior College required.

A lecture, discussion course on general hygiene. Many lectures are illustrated. Consideration is given to: (a) mortality statistics as a basis for effective hygiene; (b) agents injurious to health; (c) carriers of disease; (d) causes of poor health; (e) defenses of health; (f) producers of health; (g) methods of teaching hygiene.

**8. Individual Hygiene**—Fall and Spring Quarters. Three periods. Two hours. Senior College required.

An informational course on the essentials of individual health conservation and improvement.

**9. Child and School Hygiene**—Four periods. Four hours.

A course in Child and Educational Hygiene. (See Educational Psychology 1).

**10. Occupational Hygiene**—Fall Quarter. Two periods. Two hours.

A course dealing with Occupational Hygiene. Gives chief consideration to the health hazards of different occupations and the means of prevention. Has informational and practical value to the teacher who desires to be informed on health subjects. Not given 1921-22.

**11. Public Health**—Spring Quarter. Three periods. Three hours.

This course deals with community, state, national, and international health organizations and problems. An informational course of importance to all teachers. Required of Physical Education majors during third year.

**12. First Aid**—Winter Quarter. Two periods. Two hours.

A course covering the usual subject matter on the right thing to do in cases of emergency or injury.

## II. Practical or Exercise Courses

(General students should select activity courses from this group)

**101. Light Gymnastics—(Women)**—Winter Quarter. Three periods. One hour.

**102. Gymnastics—(Men)**—Winter Quarter. Three periods. One hour.

**103. Gymnastics**—Fall Quarter. Three double periods. Three hours.

A major course for the first year.

**103a. Gymnastics**—Winter Quarter. Three double periods. Three hours.

A continuation of No. 103. For major students in Physical Education.

**104. Apparatus, Fencing, Archery—(Women)**—Spring Quarter. Three double periods. Third year. Three hours.

For major students in Physical Education.

**105. Personal Combat Games, Heavy Apparatus and Tumbling—(Men)**—Spring Quarter. Three periods. One hour.

Boxing, fencing, and wrestling. Tumbling and apparatus work.

**105a. Personal Combat Games, Heavy Apparatus and Tumbling—(Men)**—Three double periods. Three hours. For majors.

A continuation of No. 105. Advanced work.

**106. Singing Games and Elementary Folk Dances**—Winter Quarter. Three periods. One hour.

A course giving play material for the Elementary Grades.

**107. Folk and National Dances**—Winter and Spring Quarters. Three periods. One hour.

A selected list of folk and national dances suitable for school and playground use. This course is intended to give material for the upper grade and high school groups.

**107a. Folk and National Dances**—First year. Spring Quarter. Three double periods. Three hours.

A course for Physical Education majors. Others admitted only by special permission.

A selected list of folk and national dances suitable for school and playground use. Note book and reference requirements and practice in teaching the dances is required.

**108. Esthetic Dancing**—Fall and Winter Quarters. Three periods. One hour.

Technic of the dance, and the development of bodily coordination are the aims of the course.

**108a. Esthetic Dancing**—A major course. Second year. Winter quarter. Three double periods. Three hours.

Technic and history of the dance. This course deals with this subject from the standpoint of the teacher of physical education.

**109. Classical Dancing**—Winter Quarter. Three periods. One hour.

Advanced technic and classical dances. Prerequisite Course 108 or 108a.

**110. Interpretative Dancing**—Spring Quarter. Three periods. One hour.

A continuation of No. 109.

**111. School Gymnastics**—Spring Quarter. Three periods. One hour.

Daily programs for different grades; principles of selection and arrangement of exercises; class organization and conduct form the principal divisions of the course.

**112. Plays and Games**—Fall and Spring Quarters. Three periods. One hour.

A selected list of plays and games for the intermediate grades.

**112a. Plays and Games**—Fall Quarter. Three double periods. Three hours.

Second year major course. A selected list of games suitable for intermediate grades and the vacation playground.

**113a. Playground Organization and Supervision**—Spring Quarter. Three periods. Three hours. Third year.

Third year major course, but open to other third or fourth year students who are qualified. Lectures, and practice on playground in contact with actual playground problems.

**114. Athletics for Women**—Every Quarter. Three periods. One hour.

A course in group and team games. Material suitable for upper grades and high school is presented.

**114a. Athletics**—Spring Quarter. A second year course for majors in Physical Education.

This course will deal with the rules, development of skill, and the teaching of sports and games suitable for upper grade and high school girls. A second year course. Three double periods. Three hours.

**115. Recreation Course**—Summer Quarter. Four periods—half quarter. One hour.

**116. Athletic Games—(Men)**—Each Quarter. Three periods. One hour.

Football, basketball, baseball, and track athletics depending on season.

**117. Athletic Coaching**—Fall, Winter and Spring Quarters. Four periods. Third year. Three hours.

A major course for those preparing for the physical education field. Advanced students will be assigned to coach groups in one or more athletic team games. By arrangement. This course may be repeated.

**118. Corrective Gymnastics.**

A course for those who are not able to take the regular class work. A special regimen, depending on the disability, is worked out for each individual case.

## Industrial Arts

The Industrial Division includes industrial arts, fine and applied arts, and commercial arts. The courses are varied and are organized especially along lines dealing with the technical phases of practical arts education, opportunity being given for study along historical, practical and theoretical lines. An excellent training department, housed in the Training School Building, gives full opportunity to put into practice in a teaching way the ideas presented in the various courses. This gives an opportunity for the individual students not only to become acquainted with the underlying principles in the work, but also the added advantage of teaching these branches in the Training School under expert supervision.

The Woodworking, Drafting, Printing and Bookbinding Departments of Colorado State Teachers College are the most modern departments to be found in the Middle West. The departments occupy the first and second floors of the Guggenheim Hall of Industrial Arts. The rooms are large, well ventilated and well lighted. The students in these departments are never crowded for room or hindered in their work for lack of equipment. All equipment is of the latest and best type and is always kept in first-class working condition. It is the aim of the departments to employ methods in woodworking, drafting, printing and bookbinding as thorough and practical as are to be found in the regular commercial shops.

### Course of Study

Two, three or four years for majors in Industrial Arts.

In addition to the core subjects and free electives included in all the curricula as listed on page 36, this department requires:

**First Year:** Industrial Arts 1, 2, 3, 8, 10, 12, and Art 3.

**Second Year:** Industrial Arts 5, 11, 13, 14, 19, and Art 11.

**Third Year:** Industrial Arts 105, 109, 118, 120.

**Fourth Year:** Industrial Arts 104, 121, 116 and eight hours in Industrial Arts to be selected by the student.

**5. Vocational Education**—Three hours. Fall and Spring Quarters.

The course deals with the historical development and the fundamentals of teaching practical arts subjects in their relations to other subjects of the school curriculum and their application in future activities that the child will enter.

**1. Elementary Woodwork**—Four hours. Fee, \$2.00. Every Quarter.

This course is arranged for those who have had no experience in woodworking and is designed to give the student a starting knowledge of the different woodworking tools, their care and use. The construction of simple pieces of furniture is made the basis of this course.

**2. Intermediate Woodwork**—Four hours. Fee, \$2.00. Every Quarter.

This course is a continuation of Course 1 and is designed for those who wish to continue the work, and deals with more advanced phases of woodworking.

**3. Woodworking for Elementary Schools—Four hours. Fall and Spring Quarters.**

This is a methods course and deals with such topics as equipment, materials used, where and what to buy, kinds of work to be undertaken in the different grades, the preparation and presentation of projects, the making of suitable drawings, and the proper mathematics to be used in woodworking.

**4. Toy Construction—Four hours.**

The purpose of this course is to train the teacher in the construction of toys, bird houses, etc. The making of original designs will be emphasized.

This course should appeal to those taking kindergarten and grade work.

**6. Repair and Equipment Construction—Four hours. On demand.**

This course has for its base the building of various types of equipment and the use of power machines in working out these problems. This is an especially valuable course for those who wish to emphasize the large phases of vocational education.

**8. Elementary Art Metal—Four hours. Fee, \$2.00. Fall and Winter Quarters.**

(a) This course has in mind the designing and creation of simple, artistic forms in copper, brass and German silver.

(b) Also simple, artistic jewelry, including monograms and the setting of semi-precious stones.

**10. Elementary Mechanical Drawing—Four hours. Fall and Spring Quarters.**

This course is designed to give a knowledge of the use of drawing equipment and materials. Problems presented include geometrical drawing, elements of projection, development of surface, isometric and oblique projections, simple working drawings and lettering.

**11. Projections—Four hours. Winter Quarter.**

The purpose of this course is to give a student a working knowledge of the fundamentals of orthographic projection as applied to points, lines, planes, solids, and shadow and applications.

**12. Elementary Architectural Drawing—Four hours. Winter Quarter.**

This course includes the making of complete designs of simple one-story cottages, together with details and specification of same.

**13. Intermediate Architectural Drawing—Four hours. Fall Quarter.**

This course is a continuation of Course 12 and deals with the drawing of plans of cement, brick and stone structures, culminating in complete plans and specifications for resident and public buildings.

**14. Care and Management—Three hours. On demand.**

This course is designed to train students to care for, repair and adjust hand and power tools of the woodworking department.

**19. Wood Turning—Four hours. Fee, \$2.00. Winter Quarter.**

The aim of this course is to give the student a fair knowledge of the wood-working lathe, its care, use and possibilities. Different types of problems will be worked out, such as cylindrical work, working to scale, turning duplicate parts, turning and assembling, the making of handles and attaching them to the proper tools. Special attention will be given to the making of drawings such as are used in ordinary wood turning.

**104. Pre-vocational Education—Two hours. Spring Quarter.**

The course is divided into two definite sections: First the fundamental basis for pre-vocational work, the movement from the standpoint of special governmental and state schools, rural schools, state movements and vocational clubs, with suggestions for furthering the movement from state and community standpoints; second the course of study and special plans for organization of pre-vocational work in public education.

**105. Advanced Architectural Drawing—Four hours. Spring Quarter.**

This course is designed to give the student a simple working knowledge of the great historic material such as columns, capitals, pediments, etc., in their application to modern buildings, such as churches, schools, and other public buildings.

Each student will be expected to design a public, or semi-public building as a part of this course.

**109. Advanced Art Metal**—Four hours. Fee, \$2.00. Spring Quarter.

The base for this course is the designing, making and finishing of artistic jewelry in semi-precious and precious metals; also simple artistic jewelry, with all the steps that are fundamental in stone setting and finishing.

**116. Historic Furniture**—One hour. Spring Quarter.

Lectures illustrated by lantern slides and pictures, showing the development of and characteristics fundamental in the Netherlands, English and American periods.

**117. Elementary Machine Design**—Four hours. Fall Quarter.

This course includes sketches, drawings and tracings of simple parts, such as collars, face plates, screw center, clamps, brackets, couplings, simple bearings and pulleys. Standardized proportions are used in all drawings.

**118. Advanced Machine Design**—Four hours. Spring Quarter.

A study is made of the transmission of motion by belts, pulleys, gears and cams. Sketches, details and assembled drawings are made of valves, vises, lathes, band saws, motors and gas or steam engines.

**120. Pattern Making**—Four hours. On demand.

The topics emphasized in this course will include woods best suited for various work, glue, varnish, shellac, dowels, draft, shrinkage and finish. The practical work will consist of patterns for hollow castings, building up and segment work.

**121. Advanced Cabinet Making**—Four hours. On demand.

The course is planned to cover advanced phases of cabinet work, including paneling, dovetailing, secret nailing and key joining. These technical processes will be worked out on individual projects.

**124. Machine Work**—Four hours. On Demand.

This course is designed to give the student a general knowledge of the care and operation of woodworking machinery. The setting of cutters and their manipulation embraces the general basis of this course.

**201. Seminar**—Four hours.

Individual research work in the field of practical arts. Problems to be selected upon consultation.

This is a conference course. Conference hours will be arranged to meet the demands of students in the course.

For other courses in Industrial Education, see the Department of Education, Senior and Graduate College.

### PRINTING

**1. Elementary Printing**—Four hours. Every Quarter.

The aim of this course is to acquaint the student with the various tools and materials of a print shop and to teach him the fundamentals of plain type-composition. He will carry simple jobs thru the various stages from composition to making ready and printing on the press.

**1b. Elementary Printing**—Four hours.

A continuation of Printing 1

**1c. Elementary Printing**—Four hours.

A continuation of Printing 1b.

**2. Intermediate Printing**—Four hours. Every Quarter.

A continuation of elementary printing with a view to making the student more proficient in fundamentals of the art. The principles of typographic designs will be studied in the designing and composing of letterheads, tickets, programs, etc. Color study in selection of papers and inks.

**2b. Intermediate Printing**—Four hours.

A continuation of Printing 2.

**2c. Intermediate Printing**—Four hours.

A continuation of Printing 2b.

**3. Advanced Printing**—Four hours. Every Quarter.

A continuation of the study of typographic design in the laying out and composition of menus, title and cover pages, advertisements, etc. Imposition of four and eight-page forms, advanced presswork and a study of plate and paper making will be given.



**3b. Advanced Printing—Four hours.**

A continuation of Printing 3.

**3c. Advanced Printing—Four hours.**

A continuation of Printing 3b.

**4. Practical Newspaper Work—Four hours.**

The various processes incident to the printing of a newspaper will be performed by the student in this course.

**4b. Practical Newspaper Work—Four hours.**

A continuation of Printing 4.

**4c. Practical Newspaper Work—Four hours.**

A continuation of Printing 4b.

**5. Shop Management—Four hours.**

Organization of the various forces of the shop to maintain production with efficiency. Planning for the mechanical processes of printed product. Planning and selection of equipment. Maintenance of equipment.

**6. Shop Accounting—Four hours.**

Keeping of shop records and accounts. Purchase of printing materials.

**7. Cost Accounting—Four hours.**

Advanced work growing out of shop accounting, dealing with estimating, production records and the costs of printing.

## BOOKBINDING

**1a. Elementary Bookbinding—Four hours.**

This course includes the following: tools, machines, materials and their uses, collating and preparing their sheets for sewing, sewing on tape and cord, preparing of end sheets, trimming, glueing, rounding and backing, head-binding, binding and preparing backs for covers, selecting cover materials, planning and making of covers and all steps necessary for the binding of full cloth, buckram and paper bindings, having spring or loose backs; also, the binding of one-quarter loose and tight back leather bindings with plain and fancy edges. The making of small boxes, writing pads, memoranda books, leather cases, cloth portfolios and kodak albums.

**1b. Elementary Bookbinding—Four hours.**

A continuation of Bookbinding 1a.

**1c. Elementary Bookbinding—Four hours.**

A continuation of Bookbinding 1b.

**2a. Intermediate Bookbinding—Four hours.**

This course includes the binding of books in half leather, half morocco, cow-hide, calf, sheep, and fancy leathers; also the planning and making of full leather travelers' writing cases, music cases, and art leather work.

**2b. Intermediate Bookbinding—Four hours.**

A continuation of Bookbinding 2a.

**2c. Intermediate Bookbinding—Four hours.**

A continuation of Bookbinding 2b.

**3a. Advanced Bookbinding—Four hours.**

This course is a review of both of the other courses in higher grade work and construction. Full leather bindings with raised panels is given in this course. Gilt edging, fancy edges including starch and agate edges.

Finishing in antique and gold, hand lettering in all its phases, tooling in gold and antique, strapping on stamping machines, of cloth, leather, and other materials in blind, gold and other metals and foils.

**3b. Advanced Bookbinding—Four hours.**

A continuation of Bookbinding 3a.

**3c. Advanced Bookbinding—Four hours.**

A continuation of Bookbinding 3b.

**4. Shop Management—Four hours.**

The organization of the various forces of the shop to maintain production and efficiency in the work. Planning of the mechanical work of binding. Laying out and selection of materials and methods of equipment.

**5. Shop Accounting—Four hours.**

Keeping of shop records and accounts. Purchasing and selection of materials such as tapes, papers, buckram, leathers, etc.

**6. Cost Accounting—Four hours.**

Advanced work growing out of shop management, shop accounting and equipment, dealing with the factors that enter into the estimating of production costs, such as materials and general shop expenses, etc.

## Commercial Arts

There is a constantly growing demand for well trained Commercial Teachers. This demand comes from the vocational and technical schools, high schools, normal schools and colleges. It is the purpose of the Commercial Department to meet this demand by offering first-class instruction in practical up-to-date courses that will prepare teachers for this line of teaching. The general outline of the course has been planned for teachers, but much of the work offered is suitable for practical office work and students not desiring to teach may elect a complete course suitable to their needs.

A four-year course carrying with it the A.B. degree is outlined below. This course may be taken in units of two, three or four years. The usual two-year teacher's certificate will be issued upon completion of two years work. Students who have had previous commercial training either in school or in offices will be allowed to enter advanced classes. Advance credit will be allowed for work done in creditable schools.

### Course of Study

Two years or four years for majors in Commercial Arts.

In addition to the free electives, and the core subjects included in all the curricula as listed on page 36, this department requires:

**First Year:** Commercial Arts 50, 51, 52, 53, 56 and Industrial Arts 5.

**Second Year:** Commercial Arts 54, 150, 151, 153 and Geography 7.

**Third Year:** Commercial Arts 1, 2, 11, 12, 13 and 40.

**Fourth Year:** Commercial Arts 3, 4, 6 and 17.

**1. Principles of Shorthand—Required of majors in Commercial Arts. Four hours. Fall Quarter.**

A study of the first ten lessons in Gregg Shorthand with supplementary exercises.

**2. Principles of Shorthand—Required of majors in Commercial Arts. Four hours. Winter Quarter.**

A study of the last ten lessons of Gregg Shorthand with supplementary exercises. This course completes the study of the principles of shorthand.

**3. Dictation—Required of majors in Commercial Arts. Four hours. Spring Quarter.**

A brief review of word signs, phrasing and the vocabulary of the Gregg Manual, after which brief dictation will be given of both familiar and unfamiliar matter. Enough work will be given in this course to make one proficient in taking accurately ordinary dictated correspondence.

**4. Speed Dictation—Required of majors in Commercial Arts. Four hours. Winter Quarter.**

In this course more stress will be placed upon speed in shorthand, with the idea in mind that a student finishing this course should be able to take any dictated matter. The use of the Dictaphone will be given in this course.

**6. Methods in Commercial Education**—Required of majors in Commercial Arts. Three hours. Spring Quarter.

The entire commercial field will be included in this study; equipment; the course of study; special methods; equipment of teacher; relation of business school to the community.

**11. Elementary Typewriting**—Required of majors in Commercial Arts. Four hours. Every Quarter.

Beginning work in touch typewriting, covering position at machine, memorizing keyboard, proper touch and correct fingering, with instruction in care of machine.

**12. Intermediate Typewriting**—Required of majors in Commercial Arts. Four hours. Every Quarter.

Study of approved forms and circular letters, addressing envelopes, manifolding and tabulating.

**13. Advanced Typewriting**—Required of majors in Commercial Arts. Three hours. Spring Quarter.

**17. Office Practice**—Required of majors in Commercial Arts. Twelve hours. Every Quarter.

This course consists of intensive practice in a "Model Office." Students are required to do five hours of continuous work daily, five days per week, taking dictation and transcribing. This course also includes the operation and use of modern office appliances such as the mimeograph, mimeoscope, dictaphone, adding machine, filing systems, etc. This work is very carefully systematized and consists of actual correspondence. This comes from the president's office, the deans, and heads of departments. Outside work from churches and charitable institutions is solicited also.

**40. Business English**—Four hours. Fall Quarter.

The elementary principles involved in writing correct English. The sentence, the paragraph, grammatical correctness, effectiveness, clearness, and punctuation.

**50. Elementary Accounting**—Required of Commercial majors. Four hours. Fall Quarter.

A general introduction, giving the historical background of the subject and a brief statement of the profession. The foundations of double entry bookkeeping. Assets, liabilities, proprietorship, the balance sheet, income, expenses, profit and loss statement. The entire class period is given to discussion and an average of one hour daily is required for laboratory work.

**51. Intermediate Accounting**—Required of commercial majors. Four hours. Winter Quarter.

Partnerships, introduction to corporation accounting, and many miscellaneous accounting and business methods. Two complete sets of books are written up in this course, one illustrating a partnership and another some feature of corporation accounting.

**52. Advanced Accounting**—Required of commercial majors. Four hours. Spring Quarter.

This course includes more advanced principles of accounting, treating special corporation accounts and introducing accounting problems. The work involves both class discussion and laboratory work.

**53. Commercial Arithmetic**—Required of commercial majors. Four hours. Winter Quarter.

A thoro treatment of arithmetic from the modern commercial point of view.

**54. Commercial Law**—Required of commercial majors. Three hours. Spring Quarter.

A treatment of the general principles of common law as applied to business, together with a study of the Colorado statutes and decisions bearing on commercial interests.

**56. Penmanship**—Required of majors in Commercial Arts. Four hours. Fall Quarter.

Drill in rapid, arm-movement, business writing. The Palmer system will be used.

**57. Penmanship**—Elective. Winter Quarter.

Continuation of Course 56.

**142. Advertising—Elective.**

The origin and development of the art of advertising. Special attention is given to the psychology involved in modern advertising and a careful study of the technic of good and bad advertisements.

**150. Bank Accounting—Required of majors in Commercial Arts. Four hours. Winter Quarter.**

This includes a study of state and national banking laws, loans, discounts, commercial paper, methods and principles of banking and saving accounts. A set of books illustrating several days of business will be written.

**151. Cost Accounting—Required of majors in Commercial Arts. Four hours. Fall Quarter.**

A study of material cost, labor cost, overhead expense, distribution of expense and managing expense. A set of books on manufacturing costs will be written.

**153. Salesmanship and Business Efficiency—Required of majors in Commercial Arts.**

A study of the underlying principles of salesmanship; the psychology of the making of a sale. Demonstration sales will be given from time to time by experts. An effort will be made to get some practical experience for the students in this course in the stores of Greeley.

**211. Business Administration—Elective.**

The principles of industrial management and the organization of the modern office. Various types of organization, the labor force, payment of the worker, records of raw material and unfinished goods, etc.

**220. Seminar—Any Quarter.**

An opportunity will be given for research work on problems in the commercial field. Problems to be selected in conference with the head of the department. This course is planned as a conference course.

## The Library

The main library of the College contains about fifty-three thousand volumes, with several thousand pamphlets, a large picture collection, stereopticon slides and other equipment. The building is centrally located on the campus, constructed and equipped in the most approved style. It is well lighted with ceiling and table lamps, and with its architectural and other artistic features is well suited to provide a comfortable and attractive environment for readers. The library shelves are open to all, and no restrictions are placed upon the use of the books, except such as are necessary to give all readers an equal opportunity and to provide for a reasonable and proper care of the books and equipment. All the principal standard works of reference are to be found here, with the many indexes and aids for the efficient and ready use of the library.

There are also many rare and valuable works, such as Audubon's "Birds of America," including the large plates; Audubon's "Quadrupeds of North America;" Sargent's "Silva of North America." Gould's "Humming Birds;" the works of Buffon, Nuttall and Michaux, Linnaeus, Cuvier, Jardine, Brehm, Kirby and Spence and many other equally noted writers.

In addition to the main library there is a children's branch in the Training School consisting of about 3,000 well selected books for the use of the Training School pupils.

**1. Library Science—One hour. Fall Quarter, each term. Winter and Spring Quarters, first term. No credit given except to first year students.**

An introductory course intended to familiarize the student with the arrangement of the books and general classification scheme of the library. A brief study is made of the catalogs and various indexes; also the various standard books of reference, dictionaries, encyclopedias, etc., the purpose being to acquaint the student with the most ready means of using the library.

## Literature and English

The English courses in a teachers college should be complete and sufficient for all the needs of public school teachers. Students who expect to become high school teachers of English will find in Colorado State Teachers College all the courses they need in the field of English.

Courses found in university catalogs which have no function in a high school English teacher's training, such as Anglo-Saxon and courses in philology, are omitted.

Courses in composition, oral and written, in oral English and public speaking and dramatic literature, in the teaching of English in the elementary school, in grammar and the teaching of grammar, in etymology, and in the cultural phases of literature, are offered as electives for students who expect to become grade teachers or who are pursuing some other group course than English and wish to elect these from the English Department.

### COURSE OF STUDY

Two years or four years for majors in Literature and English.

In addition to the core subjects and free electives included in all the curricula as listed on page 36, this department requires:

**First Year:** Library Science 1, and English 3, 4, 8, 9, 10 and 11.

**Second Year:** English 1, 2, 6, 15 and 16.

**Third Year:** Twelve hours of English selected by the student.

**Fourth Year:** Twelve hours of English selected by the student.

#### 1. Material and Methods in Reading and Literature—Four hours.

A survey of children's literature and a study of motivation in the field of reading, oral and silent, for children; the consideration of principles governing the choice of literature in the grades; practice in the organization and presentation of type units, including dramatization and other vitalizing exercises. A somewhat flexible course, affording opportunity for intensive work within the scope of any grade or grades, according to the individual need or preference.

#### 2. The Teaching of Written English—Four hours.

This course takes up the problems of teaching formal English, both spoken and written, in the intermediate grades, and the junior high school. The functional teaching of grammar is included.

#### 3. Public Speaking and Oral Composition—Three hours.

The endeavor of this course is to establish the student in habits of accurate speech, and to encourage fluency, vigor and logical marshaling of his thought in discourse of varied types, including exposition, description, narrative, oratory, argumentation, free dramatization.

**4. Speaking and Writing English—Required of all students unless excused by the head of the English department. Three hours. Every Quarter.**

Grammar, and oral and written English, from the point of view of their function in guiding the student in the correct use of English in speaking and writing. Practice in sentence making, sentence analysis, recognition of speech faults, and the means of correcting them; and practice in both oral and written composition.

**5. Speaking and Writing English (continued)—Three hours. Every Quarter.**

Oral and written composition. A course planned to give additional practice to those students who do not get sufficient work in English 4 to enable them to use correct English with ease and directness.

#### 6. American Literature—Four hours. Spring Quarter.

A course in American literature following the plan of Courses 8, 9, and 10 in English literature.

#### 7. The Epic—Four hours. Fall Quarter.

This course consists of a study of the two great Greek epics, The Iliad and the Odyssey, in English translations, and outlines of study covering other national epics. The purpose of the course is to furnish teachers in the elementary schools with the materials for story-telling and literary studies embracing the hero tales from Greek and other literature.

**8. The History of English Literature—Four hours. Fall Quarter.**

A reading course following the development of our literature from 670 to 1625.

**9. The History of English Literature—Four hours. Winter Quarter.**

A reading course following the development of our literature from 1625 to 1798.

**10. The History of English Literature—Four hours.**

A reading course following the development of our literature from 1798 to 1900.

**11. A Study of English Words—Four hours.**

No greater help in speaking and writing can be offered a student than a course in English etymologies, word origins, connotations, etc. The study of Latin formerly offered this information to students. Now that only a few study Latin, the English department recommends this course to all students who wish to use exact meanings of words with assurance and accuracy.

**12. Voice Culture—Four hours. Spring Quarter.**

Technical drill for freedom, flexibility and expressiveness of voice. Exercises for clear-cut, accurate articulation. Interpretation of units of literature adapted, by their range of thought, and feeling to develop modulation, color and variety of vocal response.

None of this drill is mechanical; even the technical exercise is controlled by a variety of concepts embodying the qualities sought.

**13. The Art of Story Telling—Three hours. Winter and Spring Quarters.**

The study of the main types of narrative, with emphasis upon the diction and manner suitable for each. Practice in the art of story telling.

**14. Dramatic Art—Four hours. Winter Quarter.**

The technic of the drama. The analysis and group interpretation of plays. The content of the course varies from year to year. Open only to students who have taken Course 3.

**15. Types of Literature—Three hours.**

A reading course looking toward an appreciation of literature and covering all the types of literature that can be made interesting to young people and to contribute to the formation of good taste in reading. This would include English, American, and Foreign literature which has become classic. But no matter how "classic" it is, it still must be attractive. The types covered will be lyric, narrative, and epic poetry, drama, essay, story, novel, letters and biography.

**16. Contemporary Literature—Three hours.**

A second appreciation course similar to Course 15, but dealing with the literature of not more than ten years back. Most teachers of literature leave the impression that literature must age like fiddles and wine before it is fit for human consumption. Such is not the case. Much good literature is being produced every year. After students leave school it is just this current literature that they will be reading, if they read at all. We want to help them form a discriminating taste for reading, and to acquire a liking for reading so that they will be alive to what the world is thinking, feeling, doing and saying after they leave the school.

**17. Comedy: A Literary Type—Five hours. Summer Quarter.**

The consideration of comedy as a type of drama, with intensive and comparative study of a Shakespearean comedy. The group interpretation of a Shakespearean comedy on the campus. Sometimes, when the class is large, other programs of standard plays are also given.

**22. Greek and Roman and Norse Myths—Four hours.**

A study of the classical myths of Greece and Rome and the myths of northern lands, with comparisons with the myths of other peoples. Also the influence of myths upon modern life, literature, and art.

**31. The Short Story—Four hours. Fall Quarter.**

A study of fifty typical modern short stories to observe the technical methods of modern short story writers and the themes they have embodied in the magazine fiction of the present. The course is based upon Mr. Cross' book, "The Short Story," supplemented by O'Brien's "The Best Short Stories of 1915 and 1916," and other recent volumes on the Short Story. Current magazine stories are also used.

**100. Advanced English Composition—Three hours. Fall Quarter.**

A course in composition, primarily Senior College, planned for English students and others who desire more practice in writing than they have had in Eng. 4. Students not majoring in English who want to be able to write for print in the school paper, or for professional magazines, should take this course.

**101. Journalistic Writing—Three hours. Winter Quarter.**

A continuation of Eng. 100. A course in advanced English composition based upon newspaper and magazine work. Every type of composition used in practical news and journalistic writing is used in the course.

**102. Journalistic Writing—Three hours. Spring Quarter.**

A continuation of Eng. 101.

**104. Advanced English Grammar—Four hours.**

Many students, especially those who expect to become high school teachers of English, want an extensive course in advanced English grammar. This course is planned to meet their needs. Besides including a careful and detailed study of modern practice in the use of language, it gives considerable attention to the evolution of modern usage thru historical grammar.

**105. Oral English in the High School—Two hours. Winter Quarter.**

The discussion of practical problems concerning the direction of Oral English in the secondary school; oral composition, literary society and debating activities, festivals, dramatics.

**106. The Teaching of English in the High School—Three hours. Spring Quarter.**

Principles for the selection of literature for senior high school pupils considered critically; illustrative studies in the treatment of selected pieces; study of types of composition work for high schools, with illustrative practice in writing.

**107. General Literature—Greek and Latin.**

The course concerns itself chiefly with Greek drama, but touches upon Latin literature at the close. Courses 107, 108 and 109 are all readings of English translations of the classic pieces in other literature. These courses are given in collaboration with the Department of Foreign Languages.

**108. General Literature—Italian, Spanish and French—Five hours. Winter Quarter.**

Readings in English translation of the classic pieces—Italian, Spanish and French literature.

**109. General Literature—German, Scandinavian, and Russian—Five hours. Spring Quarter.**

Readings in the classics of German, Scandinavian and Russian literature similar to those given in Courses 107 and 108.

**116. The Festival—Three hours. Spring Quarter.**

A study of historical or racial festival, its origin, forms and various elements. Research and original work in outlining unified festival plans for schools or communities, reflecting some significant event or idea, or some phase of civilization.

**120. Lyric Poetry—Four hours. Fall Quarter.**

A preliminary study of the technic of poetry, an examination of a number of typical poems to determine form and theme, and finally the application of the knowledge of technic to the reading of English lyric poetry from the cavalier poets thru Dryden and Burns to Wordsworth.

**121. Nineteenth Century Poetry—Four hours. Winter Quarter.**

A study of English poetry from Wordsworth to Tennyson, including Coleridge, Byron, Shelly, Keats, and the lesser writers from 1798 to 1832.

**122. Victorian Poetry—Four hours. Spring Quarter.**

Tennyson and Browning, and the general choir of English poets from 1832 to 1900.

**123. Contemporary Lyric Verse—Three hours. Winter Quarter.**

An attempt to estimate the significance of current tendencies in poetry, English and American; supplemented by sufficient reference to current verse of other literatures to afford comparison or analogy.

**125. Nineteenth Century Prose—Four hours. Fall Quarter.****126. The Informal Essay—Four hours. Spring Quarter.**

A study of the familiar essay for the purpose of determining the nature and form of this delightful phase of literary composition. The method in this course is similar to that pursued in the short story; namely, a reading of a number of typical essays as laboratory material for a study of technic and theme.

**127. Selected Plays of Shakespeare—Four hours. Autumn Quarter.**

The life of Shakespeare and a literary study of the plays which are appropriate for high school use, with a proper amount of attention to the method of teaching Shakespeare in high schools. Some account of the theatre in Shakespeare's time.

**128. Shakespeare's Plays—Four hours. Winter Quarter.**

Thirteen or more plays of Shakespeare. The three courses running thru an entire year take up the whole of Shakespeare's work. It is imperative that students expecting to become high school teachers should have course 127, and desirable that they should have all three.

**129. Shakespeare's Plays—Four hours. Spring Quarter.**

The remaining twelve plays and poems. This course completes the series of Shakespearean studies.

**130. Elizabethan Drama Exclusive of Shakespeare—Four hours. Spring Quarter.**

A knowledge of the dramatic literature of the early seventeenth century is incomplete without an acquaintance with the contemporaries and successors of Shakespeare from about 1585 to the closing of the theatres in 1642. The chief of these dramatists, with one or more of the typical plays of each, are studied in this course.

**132. The Development of the Novel—Four hours. Winter Quarter.**

The development, technic and significance of the novel.

**133. The Recent Novel—Four hours. Spring Quarter.**

The reading of ten typical novels of the past five years for the purpose of observing the trend of serious fiction to study the social, educational and life problems with which the novelists are dealing.

**134. Modern Plays—Four hours. Winter Quarter.**

Reading and class discussion of thirty plays that best represent the characteristics, thought-currents and the dramatic structure of our time.

## Mathematics

All courses in the department are given with a keen appreciation of the modern demand for vitalization of school work. In consequence, the material is presented in such a way as to furnish as many points of contact with real life as possible, and to give the student a comprehensive grasp of the principles of the subject under consideration.

### Course of Study

Two years or four years for majors in Mathematics.

In addition to the free electives, and the core subjects, included in all the curricula as listed on page 36, this department requires:

**First Year:** Mathematics 2, 5 and 6.

**Second Year:** Mathematics 7 and 8 or 9.

**Third Year:** Geography 113, Mathematics 101, 102 and 100.

**Fourth Year:** Sixteen hours of Mathematics, selected by the student.

**1. Solid Geometry—Four hours. Summer Quarter.**

The ordinary propositions and exercises of this subject are given. Special attention is given to practical applications.

**2. Plane Trigonometry—Four hours. Fall and Summer Quarters.**

The solution of the right triangle with numerous practical applications secured by the use of surveyors' instruments in the field; the development of the formulas leading up to the solution of the oblique triangle.

**4. Surveying—Four hours. Spring Quarter.**

In this course the student becomes familiar with the ordinary instruments of the surveyor; the transit, the compass, the level, etc. He takes up such practical problems as running a line of levels for an irrigation ditch, establishing a sidewalk grade and measuring land.



**5. College Algebra—Four hours. Winter Quarter.**

This course opens with a thoro review of Elementary Algebra with a view to giving a clear knowledge of the principles of the subject. It continues with logarithms, the progressions, and the function and its graph.

**6. College Algebra—Four hours. Spring Quarter.**

A continuation of Course 5 dealing with permutation and combinations, probability, variables and limits, theory of equations, and infinite series. Thruout the needs of the prospective teacher are constantly kept in view.

**7. Analytic Geometry—Five hours. Fall and Summer Quarters.**

This course opens up to the student, in a small way, the great field of higher mathematics. It also connects closely with the subject of graphs in Algebra and forms the basis for the work in the Calculus.

**8. The Teaching of Arithmetic—Two hours. Fall, Spring and Summer Quarters.**

This course deals primarily with the modern movements and methods in the teaching of Arithmetic. A brief history of the development of the subject and of the methods used in the past is given. The real problems of the classroom are taken up and discussed with a view to giving the student something definite that she can use when she gets into a school of her own.

**9. The Teaching of Arithmetic—Four hours. Winter Quarter.**

This course will follow the same lines as Course 8 but in greater detail. It will also give more attention to the development of the principles of the Arithmetic itself.

**100. The Teaching of Secondary Mathematics—Two hours. Spring and Summer Quarters.**

This course is designed to place before the prospective teacher the best educational thought of the day relating to High School Algebra, Geometry and Trigonometry. Consideration is given to the educational value of these subjects, to the recent improvements in teaching them and to all problems arising in the work of the modern teacher of secondary mathematics.

**101. Differential Calculus—Four hours. Winter Quarter.**

An introduction to the powerful subject of the Calculus. While care is taken to see that the formal side of the subject is mastered, many problems of a practical nature are introduced from the realms of Geometry, Physics and Mechanics.

**102. Integral Calculus—Four hours. Spring Quarter.**

This course takes up the ordinary formulas for integration and the commoner applications of the Integral Calculus.

**103. Theory of Equations—Four hours. Fall Quarter.**

The course deals with the graph, complex number, cubic and quartic equations, symmetric functions and determinants.

**106. Descriptive Astronomy—Four hours. Winter and Summer Quarters.**

This course gives an introduction to the fascinating study of Astronomy. It gives the idea of the principles, methods, and results of the science; shows the steps by which the remarkable achievements in it have been attained; and covers the recent investigations respecting the origin and development of the solar system.

**200. Advanced Differential Calculus—Four hours. Fall Quarter.**

A continuation of the preceding course given over largely to applications of the Calculus.

**201. Differential Equations—Four hours. On demand.**

A discussion of problems which lead to differential equations and of the standard methods of their solution.

**202. Advanced Integral Calculus—Four hours. On demand.**

In this course the work of the preceding course in integral calculus is rounded out and extended.

## Music

The courses offered by the department are of two kinds: (a) Courses which are elementary and methodical in their nature and are meant to provide comprehensive training for teachers who teach vocal music in the public schools.

(b) Courses which treat of the professional, historical, literary and esthetic side of music, or for those who wish to become supervisors or professional teachers of vocal and instrumental music.

### Private Instruction

The conservatory offers instruction in Voice, Piano, Violin, Orchestral and Band Instruments. Send for special Music Bulletin.

In the Conservatory Department monthly student recitals are given, which provide the students an opportunity to appear in public recital. Two operas are produced annually by the students under the direction of the director of the department.

The Philharmonic Orchestra is a Symphony Orchestra of forty members, comprised of talent from the school and community, which gives bi-monthly concerts. The standard symphonic and concert compositions are studied and played. Advanced students capable of playing the music used by the organization are eligible to join upon invitation of the director.

The college orchestra and band offers excellent training for those interested.

The annual May Music Festival gives the students opportunity to hear one of the world's greatest orchestras and study one of the standard oratorios presented at that time.

The Teachers College Choral Union presents programs during the year, their closing program being the Oratorio given during the Spring Music Festival. All pupils registered in the Conservatory of Music are eligible to the Chorus.

### Course of Study

Two years or four years for majors in Public School Music, Vocal and Instrumental Music.

In addition to the free electives, and the core subjects, included in all the curricula as listed on page 36, this department, for a major in Public School Music, requires:

**First Year:** Music 1 (unless excused by examination), 2a, 2b, 2c, 7, 8a, 8b, 8c, 10, 17, 12 and 13 (unless excused by examination).

**Second Year:** Music 9, 100, 102, 5, 119, 120.

**Third Year:** Twelve hours of Music selected by the student.

**Fourth Year:** Twelve hours of Music, selected by the student.

The courses in Instrumental and Vocal Music will be arranged to suit each individual student in consultation with the director.

**1. Sight Reading**—Three hours. Fall Quarter.

Notation, theory, sight reading. Designed especially for teachers desiring to make sure of their knowledge of the rudiments of music so that they may be able to teach music in the public schools more efficiently.

**2a. Methods for Primary Grades**—Four hours. Fall and Spring Quarters.

The work of the Sensory period including the first three grades is intensively studied. The teaching of rote songs. The development and care of the child voice. The first steps in technique.

**2b. Music for the Intermediate Grades—Four hours. Winter Quarter.**

An intensive study of the grades included in the Associative period. Sight reading, interval study, signatures of keys (major and minor). Care of the voice. All problems of these grades considered and practical solutions offered.

**2c. Junior High School Methods—Four hours. Spring Quarter.**

The adolescent period. Material and methods for this crucial period in the musical life of the child. The changing boy voice. Intensive study of part singing. Musical appreciation for these grades. A practical course to meet the needs of the teacher.

**3. Kindergarten and Primary Music—Two hours. Spring Quarter.**

Designed especially for kindergarten and primary teachers. Songs and music adapted to children of these departments will be studied and sung. The care and development of the child voice; the teacher's voice; methods of instruction; practice singing and rhythm exercises will be presented.

**5. Methods for Special Students—Three hours. Spring Quarter.**

A review in methods for special music students who are looking forward to a major. Conducting, suggestions for assigning work to pupil and teacher in the public schools. A preliminary for the Supervisor's Course.

**6. Chorus Singing—One hour. Every Quarter.**

Worth-while music and standard choruses are studied and prepared to present in concert.

**7. History of Ancient and Medieval Music—Two hours. Fall Quarter.**

A literary course which does not require technical skill. Open to all students who wish to study music from a cultural standpoint. From earliest music to Bach.

**8a. Harmony—Three hours. Fall and Winter Quarters.**

Beginning harmony. The work consists of written exercises on basses (both figured and unfigured) and the harmonization of melodies in four voices. These are corrected and subsequently discussed with the students individually. Work completed to the harmonization of dominant discords and their inversions.

**8b and 8c. Six hours. Winter and Spring Quarters.**

Harmonization of all discords. The circle of chords completed, modulation, etc. The harmony courses continue throughout the year, and the work is planned to meet the individual needs of the class.

**9. Advanced Harmony—Three hours. Fall Quarter.**

A continuation of Courses 8a, 8b, and 8c.

**10. Methods in Appreciation—Two hours. Winter Quarter.**

This course is planned to prepare teachers to present more intelligently the work in Appreciation of Music, for which there is a growing demand in all our schools. A carefully graded course suitable for each grade is given. The lives and compositions of the composers from Bach to Wagner are studied.

**12. Individual Vocal Lessons—Every Quarter.**

Correct tone production, refined diction and intelligent interpretation of songs from classical and modern composers. To make arrangements for this work, consult the director of the department.

**13. Individual Piano Lessons—Every Quarter.**

Piano work is arranged to suit the needs and ability of the individual. From beginning work to artistic solo performance. To arrange work, consult the director.

**14. Individual Violin Lessons—Every Quarter.**

The work will be outlined according to the ability of the student. To arrange work, consult the director.

**15. Individual Pipe Organ Lessons—Every Quarter.**

The work will be outlined according to the ability of the student. The work presupposes some knowledge of the piano. To arrange work, consult the director.

**17. Modern Composers—Two hours. Spring Quarter.**

The lives of musicians from Wagner to the present day are studied. Programs of their music are given by members of the class, the talking machines and player piano. The work is planned to show the modern trend of music and to make the students familiar with the composition of modern writers.

**100. Advanced Harmony and Counterpoint**—Three hours. Winter Quarter.

A continuation of Course 9.

**101. Composition and Analysis**—Three hours. Spring Quarter.

Primary forms, including the minuet, scherzo, march, etc. Simple and elaborate accompaniments. Analysis of compositions of primary forms principally from Mendelssohn and Beethoven.

**102. Orchestration**—Three hours. Spring Quarter.

The instruments of the orchestra. Practical arranging for various combinations and full orchestra.

**103. Advanced Orchestration**—Four hours.

A continuation of Course 102.

**105. Supervisors' Course**—Four hours. Spring Quarter.

The material used in the grades and high school is taken up and studied from a supervisor's standpoint. Actual practice in conducting works of a practical nature will be offered those interested in this course.

**106. Choral and Orchestral Conducting**—Four hours.

Methods of conducting chorus and orchestra. Practical experience conducting both the choral society and orchestra.

**112. Advanced Vocal Individual Instruction**—Every Quarter.

The individual work in voice may be carried thru the four-year course for those wishing to prepare as specialists in that field.

**113. Advanced Piano Individual Instruction**—Every Quarter.

Individual work in piano may be carried thru the entire four-year course for those wishing to prepare as specialists in that field.

**116. School Entertainments**—Four hours. Spring Quarter.

Practical programs for all occasions. Thanksgiving, Christmas and Arbor Day. Patriotic programs. Programs of songs of all nations. The term concludes with some opera suitable for use in the grades.

**119. Interpretation and Study of Standard Operas**—Two hours. Fall Quarter.

Operas of the classical and modern schools are studied, thru the use of the talking machine, and their structure and music made familiar to the class.

**120. Interpretation and Study of Standard Oratorios and Symphonies**—Two hours. Winter Quarter.

The standard oratorios are studied. The best known solos and choruses are presented by members of the class or talking machine. The content of the work is studied with the hope of catching the spirit of the composer. The symphonies of Haydn, Mozart, Beethoven, Schumann, Schubert and other writers of the classical and modern schools are presented to the class.

**121. Research**—Four hours. Winter Quarter.

A comparative study of the work done in the public schools in cities of different classes. A similar study is made of the work done in the normal schools and teachers colleges of the various states.

## Physics

The various courses to be given by the Physics Department have a double purpose in view: First, to give the students an adequate knowledge of theoretical and applied physics; second, to develop in close co-operation with the students more efficient methods of teaching this subject in secondary schools. Although the former is essential, the latter constitutes the problem proper in a teachers college.

### Course of Study

Two years or four years for majors in Physics.

In addition to the free electives, and the core subjects, included in all the curricula as listed on page 36, the department of Physics requires:

**First Year:** Physics 1, 2 and 3.

**Second Year:** Physics 4, 5 and 6.

**Third Year:** Physics 7, 8 and 9.

**Fourth Year:** Physics 10, 101 and 102.

**1. Mechanics (including Hydrostatics and Hydraulics)—Four hours. Fall Quarter.**

This course is intended both for prospective elementary and high school teachers. Its primary aim, besides a clear understanding of general laws, is a firm grasp of the principles underlying the most fundamental mechanisms and some of our modern machines. The scope and content of the course will be so arranged as to reduce considerations of a purely analytical value to a minimum. Experiments and projects will be taken mostly from the immediate environment.

**2. The Study of Heat—Four hours. Winter Quarter.**

This course will include a simple exposition of different theories of the nature of heat, its effect upon matter, its physiological and climatic effects; its relation to other forms of energy, and, finally, the application of a few fundamental principles of thermodynamics to gas and steam engines.

**3. Electricity, Magnetism and Electromagnetics—Four hours. Spring Quarter.**

This course provides an adequate information concerning electrical and magnetic laws illustrated by problems based upon practical applications of electricity. It presents out of the immense mass of electrical phenomena only those which have a direct bearing upon the teaching of physics in elementary and secondary schools.

It will enable the prospective teacher not only to understand the workings of electrical instruments and machinery, but to organize electrical experiments which will act most stimulatingly upon the imagination of the young. The course will be accompanied by problems, experiments and projects on D. C. and A. C. generators, motors, telephone, telegraph, wireless, etc.

**4. The study of Sound and Light—Four hours. Fall Quarter.**

This course will deal with the nature of sound, the laws of its propagation, and their application to musical as well as to technical instruments. An elementary exposition of Newton's and Huyghens' theories of light and will make the light phenomena more intelligible. The study of mirrors, lenses and prisms will lead toward experiments and projects on such instruments as the microscope, telescope, spectroscope, as well as to the study of photography and color photography.

**5. Mechanics (including Hydrostatics, Hydraulics, Capillarity, etc.)—Four hours. Fall session.**

This course is intended for high school and college teachers. It will be based, as far as possible, on the one hand, upon the historical development of mechanics, and, on the other hand, upon the theory and practice of those machines and mechanisms which are the most demonstrative both of the underlying principles and of the progress accomplished during the last few centuries. Pre-requisite: 1. J. F. or its equivalent.

**6. The Study of Heat and Thermodynamics—Four hours. Winter Quarter.**

Mechanical theory of heat. Effect of heat upon properties of matter. Liquefaction of air and other gases. Digression on Energy. Perpetual motion. Various forms of energy and their transmutations. Sources of energy. Principle of equivalence. Carnot-Clausius principle. Dissipation of energy. Experiments and projects on various applications of heat. (Steam engines, gas engines, etc.)

**7. The Study of Light—Four hours.**

This course will begin with a general review (in the form mostly of problems and projects) of Course 4. The course will be based entirely upon Huyghens' wave theory. The study of interference, diffraction, polarization and double refraction will give ample material for a series of experiments and projects.

**8. Electricity and Electromagnetics—Four hours. Fall Quarter.**

This course is a more advanced development of Course 3 J. Sp. (pre-requisite). It will give a more thorough treatment of the fundamental laws of Electrostatics, Electrodynamics and Electromagnetics. This course will include the electromagnetic theory of Light and the Electron Theory.

### 9. The History of Epoch-making Discoveries in Physics—Four hours.

The purpose of this course is to bring out the historical conditions under which the great discoveries were accomplished. The struggle that the natural philosophers have had to carry out in all ages against their contemporaries, imbued either with traditional superstition or with prejudice, their unyielding and often heroic determination to vanquish and subdue the forces of Nature for the benefit of mankind ought to form one of the cornerstones in the teaching of history in the public schools.

### 10. Methods of Teaching Physics in Elementary and High Schools.

This course is intended for teachers of both Physics and General Science. Its main purpose is the organization of projects, experiments, and "red letter" lessons in elementary physics. Hours to be arranged.

### 101. Methods of Teaching Physics.

This course will deal with methods of teaching Physics in high schools and colleges, and the organization of lectures, experiments and projects. Hours to be arranged.

### 102. Physics of Everyday Life.

Physical laws applied to the needs of the household or to the life of the community at large will be emphasized in a series of topics and projects taken from the immediate environment. The projects will include photography, telegraphy, telephone, lighting and heating apparatus, electric and gas motors, etc. Hours to be arranged.

Other courses of somewhat more special character will be organized later by the Physics Department.

## Romance Languages and Latin

Five years work in both French and Spanish, one year of College Latin and one year of Italian will be offered during the year 1921-22. No credit will be given for less than 10 hours in the first year's work in French and Spanish.

### Course of Study

Two years or four years for majors in Romance Languages.

In addition to the free electives, and the core subjects included in all the curricula as listed on page 36, this department requires:

**First Year:** French 1, 2, 3, Spanish 5, 6, 7, or Spanish 1, 2, 3, French 5, 6, 7.

**Second Year:** French 10, 11, 12, Spanish 10, 11, 12.

**Third Year:** 9 hours of French, or 9 hours of Spanish.

**Fourth Year:** 9 hours of French or 9 hours of Spanish.

### FRENCH

1. **Grammar and Pronunciation**—Four hours. Fall Quarter.

The completion of 25 lessons in Maloubier and Moore's French grammar.

2. **Grammar and Reader**—Four hours. Winter Quarter.

Completion of the French grammar and reading of easy texts.

3. **Reading and Conversation**—Four hours. Spring Quarter.

The reading of three easy texts and much drill in conversation and dictation.

5. **Elements of French Literature**—Three hours. Fall Quarter.

Devoted to Halevy's *L'Abbe Constantin* and Dumas' *La Tulipe Noire*.

6. **Easy French Plays**—Three hours. Winter Quarter.

Three comedies by La Biche and exercises in composition and conversation.

7. **French Fiction**—Three hours. Spring Quarter.

Daudet's *Tartarin de Tarascon*, De la Brete's *Mon Oncle et Mon Cure*. Composition and sight work based on About's *Le Roi des Montagnes*.

10. **The Romantic Movement**—Three hours. Fall Quarter.  
Three dramas of Hugo; *Le Roi s'Amuse*, *Hernani*, and *Ruy Blas*.
11. **Women in French Literature**—Three hours. Winter Quarter.  
Georges Sand, *Madame de Lafayette* and *Madame de Sevigne*.
12. **French Prose**—Three hours. Spring Quarter.  
De Vigny, Gautier, and Merimee. Selected works and a special study of French prose as compared with English and Spanish masters.
105. **Short Story Writers**—Three hours. Fall Quarter.  
De Maupassant, Merimee, Daudet and others.
106. **The Teaching of French in Secondary Schools**—Three hours. Winter Quarter.  
A summary of methods, devices and choice of texts to be used during a two and four years course in high schools.
107. **The Classic Writers**—Three hours. Spring Quarter.  
Corneille, Racine and Moliere. Selected dramas.
210. **Recent French Literature**—Three hours. Fall Quarter.  
The works of Georges Clemenceau and selected works written since 1918.
211. **Old French**—Three hours. Winter Quarter.  
A reading course in Old French Prose. Aucassin et Nicolette.
212. **French Prose Composition**—Three hours. Spring Quarter.  
A course in the translation of difficult English prose into French. Also original French composition.

## SPANISH

1. **Grammar and Pronunciation**—Four hours. Fall Quarter.  
The completion of 25 lessons in Moreno-Lacalle's Spanish Grammar.
2. **Grammar and Reader**—Four hours. Winter Quarter.  
Completion of grammar and reading of *El Primo Libro de Lectura*.
3. **Reading and Conversation**—Four hours. Spring Quarter.  
The reading of easy short stories and conversational exercises.
5. **Elements of Spanish Literature**—Three hours. Fall Quarter.  
The short stories of Pedro de Alarcon.
6. **Easy Spanish Plays**—Three hours. Winter Quarter.  
Three plays of Martinez Sierra and two of Benavente.
7. **Spanish Fiction**—Three hours. Spring Quarter.  
Selected works of Ibanez, Galdos and Valdes.
10. **The Literature of Old Mexico**—Three hours. Fall Quarter.  
*Leyendas Mejicanas*, *La Navidad en Las Montanas* and others.
11. **The Literature of South America**—Three hours. Winter Quarter.  
Marmol's *Amayala*, Phipp's *Paginas de Sud-America* and Ibanez's *Paginas Sud-Americanas*.
12. **Contemporary, Spanish Literature**—Three hours. Spring Quarter.  
Sierra, Benavente, and Ibanez.
105. **Nineteenth Century Dramatic Literature**—Three hours. Fall Quarter.  
Devoted to Tamayo y Baus, Jose Echegaray and others.
106. **The Golden Age of Spanish Literature**—Three hours. Winter Quarter.  
The dramas of Lopa de Vega and Calderon.

**107. Early Spanish Fiction**—Three hours. Spring Quarter.

Devoted to three or more selected works of Cervantes, including portions of Don Quijote.

**210. Industrial Spanish**—Three hours. Fall Quarter.

**211. Commercial Spanish**—Three hours. Winter Quarter.

**212. The Teaching of Spanish**—Three hours. Spring Quarter.  
Including work in Old Spanish Readings.

#### ITALIAN

No courses in Italian will be offered during the year 1921-22, unless ten or more students request such a course.

#### LATIN

**10. Freshman College Latin**—Three hours. Fall Quarter.  
Cicero or Vergil.

**11. Freshman College Latin**—Three hours. Winter Quarter.  
Livy or Horace.

**12. Freshman College Latin**—Three hours. Spring Quarter.

The following courses covering the first year's work will be offered, but not for College credit:

**1. First Year Latin**—Five hours. Fall Quarter.  
Elements of Grammar and Easy Reading.

**2. First Year Latin**—Five hours. Winter Quarter.  
Continuation of First Year's book.

**3. First Year Latin**—Five hours. Spring Quarter.  
Completion of First Year book.

## Social Science

This department offers a series of courses which it desires shall appeal to both the needs and ambitions of many students. The courses are liberal and varied in scope. Many of them will meet the immediate practical needs of teachers. Some of them are technical, and are intended for teachers and students of special subjects. Still others are advanced courses in social theory, or are practical studies in applied sociology.

Social Science deals with the knowledge on which true theory in Education must be based. It is equally essential in the training of high school and elementary teachers.

The major four-year course offered by this department is a superior opportunity for high school teachers, superintendents, principals, supervisors, and all students desiring liberal training in Modern Social thought and its inevitable effects on Education and human progress.

#### Course of Study

Two years or four years for majors in Social Science.

In addition to the free electives, and the core subjects included in all the curricula as listed on page 36, this department requires:

**First Year:** Sociology 1, 32 and 12.

**Second Year:** Sociology 20, 24 and 37.

**Third Year:** Twelve hours of Sociology, selected by the student.

**Fourth Year:** Twelve hours of Sociology, selected by the student.



**1. Anthropology—Four hours. Fall Quarter.**

The evolution of social ideas and institutions, the family, religion, government, law, art and industry.

**3. Educational Sociology—Three hours. Every Quarter. Required in first year.**

A course giving (1) a background of information concerning origins and interrelations of present social problems; (2) a brief formulation of the methods of social progress; and making (3) a definite attempt to show the relation of education to the problems of control and progress.

**12. Social Readjustment—Four hours. Spring Quarter.**

This course offers an elementary study of how the processes of reconstruction may be applied to a considerable number of practical social problems. It isolates certain situations from the larger field and by a brief analysis of the factors in these attempts to stimulate the habit of thinking in terms of social cause and effect. This course should be useful to the elementary school teacher of history and civics.

**16. Society and the Church—Four hours.**

The social evolution of the church, and its changing relations to society; new concepts in religious education.

**18. Rural Sociology—Four hours.**

A constructive study of country life, economic activities, social organizations, schools, clubs, churches, social centers, and modern efforts and successes in rural progress; intended primarily for rural teachers, but is of value to all students of rural social conditions and needs.

**19. Urban Sociology—Four hours. Winter Quarter.**

The modern city and its social problems.

**20. The Distribution of Wealth—Four hours.**

Changing modes of distribution, the varying proportion, tendencies in legislation, changing modes of taxation, effect of social insurance.

**23. Immigration and American Problems—Four hours. Winter Quarter.**

A study of the changes in the population of the United States during the 19th century, and our resultant alien problems.

**24. Child Welfare—Four hours. Winter Quarter.**

This is a course in the growth and tendencies of the modern movement for the conservation of children. It begins by giving a view of the status of children in the past; passes to a consideration of the evolution of the child protection agencies in the United States; and deals finally with the present problems and tendencies in child welfare programs.

**32. The Family—Four hours.**

A very profitable study of the family from the standpoint of education, industry, ethics, and as a social unit. Desirable for teachers, but of great value to all students of either theoretical or practical Sociology. Closely related to Courses 22 and 24.

**37. Labor and Society—Four hours.**

A study of the laboring classes, development, places, privileges, and rights in society; and relation of workers to systems of industrial administration. Specially commended to teachers of industrial education, and to students of economics. It correlates well with Courses 12, 107, 108, 19, and 27.

**104. Social Theory—Two hours. Fall Quarter.**

A brief history of Sociologic theory; a comparative study of modern social theory, and its relation to modern biologic science.

**105. Social Institutions and Social Maladjustments—Four hours. Fall Quarter. Required in third year.**

The relation of Sociology to Psychology; the evolution of mind as a Social progress, the Social emotional basis of mind and its development as a directive agent.

**106. Principles of Social Progress—Two hours. Spring Quarter.**

A study of the basic principles of social evolution and social progress, consideration of the present social tendencies; and speculation as to future social control.

**107. Privilege and Democracy—Four hours. Fall Quarter.**

A study of special privilege in America in its relation to land and natural resources; monopolies in their relation to land holding; and a discussion of the single tax in comparison with other methods of control.

**108. Social Insurance—Four hours. Winter Quarter.**

Studies in the operation of social insurance in European countries, Australia, New Zealand, and the growth of the idea in America since 1912. It comprises social compensation for accidents, sickness, invalidity, unemployment, and old age.

**110. Economics—Three hours. Fall Quarter.**

A general course, touching all the common phases of the Science of Economics.

**111. Advanced Economics—Three hours. Spring Quarter.**

An intensive study of labor problems and economic organization; labor unions and legislation; corporation and public ownership, socialism; and modern changes in taxation.

**117. Women and Social Evolution—Four hours.**

A study of the woman movement; its history; its economic and psychological significance; its possible effects on social progress; its relation to education, and the specific relation to the education of women.

**127. Social Legislation—Four hours.**

The term social legislation is intended to suggest a very recent development of purpose in legislative remedies. If it be true that in the past legislation has not only not anticipated bad conditions but has, rather, characteristically, waited until evils reached dramatic proportions before being applied, the meaning of the course title will be perfectly clear. The course is to deal with the more purposive applications of legislative remedies to existing social maladjustments—such as, for example, labor difficulties, housing and health problems, the liquor traffic, prostitution, city planning, and the like.

**131. Modern Civilization and Its Social Tendencies—Three hours. Fall Quarter, alternate.**

Hypernationalism; social negatives; the survival of pagan ideals; the need of economic, spiritual, ethical and religious revolutions.

**132. Social Revolutions—Three hours. Spring Quarter, alternate.**

A program of possible reconstruction of social values, and the development of social leadership thru some change in emphasis in Education.

**200. Psychological Sociology—Four hours.**

A study of the psychology of social relations, social organization, social changes, and impediments to social progress.

**210. Methods of Social Research—Four hours.**

A seminar for research study, including intensive work in social surveys.

**211. Morals and Culture—Four hours.**

A study of the evolution of morals, the development of ideas of culture, and the relation of these to modern theories of Education.

**220. The Consumption of Wealth—Four hours.**

An advanced course in Social Economics, a constructive analysis of the modern tendency to subject the consumption of wealth to scientific treatment, emphasizing the human costs of production versus the human utility of scientific consumption; a human valuation.

**221. Social Economy—Four hours.**

A course which shows the nature and extent of past social failures and the slow evolution from blind reaction to distress to more or less rational methods of control; and deals with the extensions of social concern to the fields of need felt most keenly.

**229. Criminology—Four hours.**

This course is a study of the relationship of the criminal to society—to social institutions and social organizations. Incidentally, it will show the changing attitude of society toward the criminal, and the more important factors behind the change. The course is, however, mainly concerned with the present relations of the criminal in society and his treatment at the hands of society. The course intends to present the best modern thought in the various aspects of the field.

**230. High School Course in Sociology and Economics—Four hours.**

A course in materials and methods in elementary Sociology and Economics for high school teachers.

# CATALOG OF STUDENTS

## SCHOOL YEAR 1920-1921

### Colorado State Teachers College

#### Fall, Winter and Spring Quarters

|                      |                         |
|----------------------|-------------------------|
| Absher, Mrs. Blanche | Greeley, Colo.          |
| Acuff, Helen         | Pueblo, Colo.           |
| Agunod, Nemesio      | Washington, D. C.       |
| Ahlstrand, Charlene  | Greeley, Colo.          |
| Aithen, Louise       | Colorado Springs, Colo. |
| Asher, Mrs. Blanche  | Greeley, Colo.          |
| Alber, Hubert        | Greeley, Colo.          |
| Alber, Vera          | Greeley, Colo.          |
| Albertson, Cyrus E.  | Greeley, Colo.          |
| Albright, John       | Alamosa, Colo.          |
| Alexander, Russell   | Greeley, Colo.          |
| Allan, Helen         | Lafayette, Colo.        |
| Allison, Esther      | Walsenburg, Colo.       |
| Allman, Richard M.   | Denver, Colo.           |
| Almgren, Edith       | Fairplay, Colo.         |
| Allstott, Thomas J.  | Tarwell, Ind.           |
| Alt, Pearl           | Brighton, Colo.         |
| Ammerman, Marie      | Denver, Colo.           |
| Anderson, Edith      | Eaton, Colo.            |
| Anderson, Eleanor    | Eaton, Colo.            |
| Anderson, Gladys     | Greeley, Colo.          |
| Anderson, Grace      | Greeley, Colo.          |
| Anderson, Henry M.   | Greeley, Colo.          |
| Anderson, Margaret   | Ault, Colo.             |
| Annett, Mildred      | Greeley, Colo.          |
| Apel, Alice          | Fort Lupton, Colo.      |
| Arthur, Grace        | Canon City, Colo.       |
| Arnett, Irene E.     | Corlinville, Ill.       |
| Arnold, Persia       | Denver, Colo.           |
| Ashlock, Ethel       | Bloom, Colo.            |
| Atkins, Ruth         | Pierce, Colo.           |
| Auger, Margaret      | Central City, Colo.     |
| Ayers, Mary Edith    | Fort Collins, Colo.     |
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| Baker, W. E.         | Greeley, Colo.          |
| Baker, Zula I.       | Eads, Colo.             |
| Baker, Hulda R.      | Greeley, Colo.          |
| Baker, Rachel J.     | Morrison, Colo.         |
| Baldwin, Irwin       | Greeley, Colo.          |
| Baldwin, Ruth M.     | Hudson, Colo.           |
| Baldwin, G. I.       | Greeley, Colo.          |
| Baldwin, Laura       | Hudson, Colo.           |
| Ball, Elberta        | Farmville, Ill.         |
| Banks, Marjorie      | Oak Creek, Colo.        |
| Barbour, Lillian M.  | Wheatridge, Colo.       |
| Barnes, Mildred      | Byers, Colo.            |
| Barnard, Adella      | Florence, Colo.         |
| Barney, Chloe        | Manitou, Colo.          |
| Barnard, Virginia    | Johnstown, Colo.        |
| Barrett, Almira      | Boulder, Colo.          |
| Barrett, Ethel       | Colorado Springs, Colo. |
| Barrett, Helen       | Denver, Colo.           |
| Bartholomew, Blanche | Worland, Wyo.           |
| Bass, Vesper J.      | Greeley, Colo.          |
| Bast, Louise         | Delta, Colo.            |
| Batchelder, Marvis   | Greeley, Colo.          |
| Batschelet, Olive    | Panora, Iowa            |
| Batschelet, Ethel    | Greeley, Colo.          |
| Baxter, Alfred       | Greeley, Colo.          |
| Beebe, Norma W.      | Fort Collins, Colo.     |
| Beem, Mrs. Ruth      | Greeley, Colo.          |
| Beers, Corae         | Greeley, Colo.          |
| Beezley, Grace       | Red Cloud, Colo.        |
| Belcher, Geraldine   | Ault, Colo.             |
| Bellwood, Tom O.     | Greeley, Colo.          |
| Bell, Garnet         | Walsenburg, Colo.       |
| Bennie, Elvena       | Greeley, Colo.          |
| Biederbick, Esther   | Lamar, Colo.            |
| Birdsaw, Georgia     | Dover, Colo.            |

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| Blakesley, Ercell .....      | Ault,             | Colo. |
| Blair, Mary C. ....          | Greeley,          | Colo. |
| Blair, Florence .....        | Greeley,          | Colo. |
| Bliss, Alice .....           | Greeley,          | Colo. |
| Bliss, Valla .....           | Greeley,          | Colo. |
| Bliss, Vincent .....         | Greeley,          | Colo. |
| Bodine, Alice .....          | Denver,           | Colo. |
| Boetz, Esther .....          | Pueblo,           | Colo. |
| Bonell, Hanna .....          | Greeley,          | Colo. |
| Booker, Albina .....         | Glenrock,         | Wyo.  |
| Booth, Marie .....           | Sterling,         | Colo. |
| Bosley, Bertha M. ....       | Colorado Springs, | Colo. |
| Bowers, Margaret .....       | Greeley,          | Colo. |
| Bowden, Mary E. ....         | Victor,           | Colo. |
| Bower, Cora .....            | Greeley,          | Colo. |
| Bower, Mrs. W. G. ....       | Greeley,          | Colo. |
| Buck, Garnet .....           | Greeley,          | Colo. |
| Bulger, Lillian .....        | Greeley,          | Colo. |
| Bull, Ethel J. ....          | Patcher,          | Colo. |
| Burger, Evelyn .....         | Greeley,          | Colo. |
| Burlien, Dorothy .....       | Denver,           | Colo. |
| Barnham, Bessie J. ....      | Red Mesa,         | Colo. |
| Burke, Alice .....           | Rocky Ford,       | Colo. |
| Burrows, Iphigenia .....     | Greeley,          | Colo. |
| Bush, Sue .....              | Denver,           | Colo. |
| Butts, Linnie .....          | Bedford,          | Iowa  |
| Bracewell, Harold .....      | Greeley,          | Colo. |
| Brady, Mildred .....         | Colorado Springs, | Colo. |
| Braun, Irma F. ....          | Bennett,          | Colo. |
| Brentlenger, Harriette ..... | Portland,         | Colo. |
| Briden, Queen .....          | Greeley,          | Colo. |
| Brohl, Julia .....           | Central City,     | Colo. |
| Brolien, Ellen .....         | Windsor,          | Colo. |
| Brown, Carl O. ....          | Lowell,           | Mass. |
| Brown, Elizabeth .....       | Greeley,          | Colo. |
| Brownell, Francis .....      | Greeley,          | Colo. |
| Brown, Hazel C. ....         | Sheridan,         | Wyo.  |
| Brown, Mary I. ....          | Greeley,          | Colo. |
| Brooks, Bernice .....        | Briggsdale,       | Colo. |
| Brunstein, John .....        | Pierce,           | Colo. |
| Brush, Marguerite .....      | Denver,           | Colo. |
| Bryden, Helen .....          | Carbondale,       | Colo. |
| Bryson, Elizabeth .....      | Louisiana,        | Mo.   |
| Bryson, Gertrude .....       | Rocky Ford,       | Colo. |
| Bryson, Josephine .....      | Rocky Ford,       | Colo. |
| Callis, Dorothy .....        | Denver,           | Colo. |
| Calvert, Alice .....         | Des Moines,       | Iowa  |
| Cameron, Margaret .....      | Barr,             | Colo. |
| Campbell, Ethel .....        | Greeley,          | Colo. |
| Campbell, Mrs. A. D. ....    | Greeley,          | Colo. |
| Carnahan, Gladys .....       | Colorado Springs, | Colo. |
| Carpenter, Michaela .....    | Greeley,          | Colo. |
| Carter, Mildred .....        | Colorado Springs, | Colo. |
| Carter, T. C. ....           | Alva,             | Okla. |
| Cartwright, Cecil .....      | Greeley,          | Colo. |
| Carr, Ruth .....             | Denver,           | Colo. |
| Casey, Kathryn .....         | Denver,           | Colo. |
| Casey, Mary L. ....          | Butte, Mont.      |       |
| Casey, Zita .....            | Butte, Mont.      |       |
| Champlain, Lucie V. ....     | Greeley,          | Colo. |
| Champlain, Lura .....        | Greeley,          | Colo. |
| Chapman, Klyda .....         | Buhl,             | Idaho |
| Cherry, Jessie P. ....       | Greeley,          | Colo. |
| Christenson, Anna .....      | Cripple Creek,    | Colo. |
| Christy, Aileen .....        | Breen,            | Colo. |
| Churchill, India .....       | Denver,           | Colo. |
| Clark, Inez .....            | Boulder,          | Colo. |
| Clark, Mabel .....           | Mancos,           | Colo. |
| Clauson, Wolberg .....       | Greeley,          | Colo. |
| Cleghorn, Doris .....        | Greeley,          | Colo. |
| Cline, Mrs. H. M. ....       | Greeley,          | Colo. |
| Clymer, Ethel .....          | Mead,             | Colo. |
| Coffel, Mabel .....          | Fort Collins,     | Colo. |
| Cole, Emma B. ....           | Colorado Springs, | Colo. |
| Coles, Edith .....           | Fort Collins,     | Colo. |
| Collins, Ruth .....          | Greeley,          | Colo. |
| Connellee, Gladys .....      | Wheatridge,       | Colo. |
| Conner, Helen .....          | Greeley,          | Colo. |
| Conner, Kathleen .....       | Greeley,          | Colo. |
| Cook, Nellie V. ....         | Barnesville,      | Colo. |
| Copeland, Blanche .....      | Greeley,          | Colo. |
| Cowden, Elfleta .....        | Aurora,           | Colo. |

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|-----------------------------|-------------------------|
| Cox, Alice .....            | Hillrose, Colo.         |
| Cox, Marion .....           | Cedar Falls, Iowa       |
| Craig, Mary M. ....         | Greeley, Colo.          |
| Crawford, Bertha M. ....    | Milliken, Colo.         |
| Crawford, Ethel .....       | Greeley, Colo.          |
| Crawford, Mrs. Myrtle ..... | Greeley, Colo.          |
| Creed, Zuella .....         | Lamar, Colo.            |
| Cremeans, Edith .....       | Greeley, Colo.          |
| Cresto, Louise .....        | Rockvale, Colo.         |
| Cribbs, Frances .....       | Greeley, Colo.          |
| Crissey, Gladys .....       | Colorado Springs, Colo. |
| Cunningham, Isabel .....    | Wendover, Wyo.          |
| Curry, Mrs. Ethel .....     | Stillwater, Colo.       |
| Curry, Ruth .....           | Cripple Creek, Colo.    |
| Curtin, Ida H. ....         | Greeley, Colo.          |
|                             |                         |
| Dahl, Pearl .....           | Lafayette, Colo.        |
| Dalbey, Hazel .....         | Jewell, Iowa            |
| Daley, Cecil L. ....        | Colorado Springs, Colo. |
| Dolph, Mrs. A. N. ....      | Greeley, Colo.          |
| Damm, Mattie .....          | Fort Morgan, Colo.      |
| Darling, A. L. ....         | Greeley, Colo.          |
| Daubenspeck, Esther .....   | Denver, Colo.           |
| Davenport, Exine .....      | Greeley, Colo.          |
| Davis, Helen .....          | Greeley, Colo.          |
| Davis, Ida M. ....          | Greeley, Colo.          |
| Davis, Rhoda .....          | Hannibal, Mo.           |
| Davis, Mrs Robert Y. ....   | Greeley, Colo.          |
| Davis, Robert Y. ....       | Greeley, Colo.          |
| Davis, Thomas .....         | Greeley, Colo.          |
| Davison, Mabel .....        | Alda, Neb.              |
| Day, Louise .....           | Denver, Colo.           |
| Dean, Marion .....          | La Salle, Colo.         |
| DeArnold, Olive .....       | Greeley, Colo.          |
| Dedrick, Helene .....       | Greeley, Colo.          |
| Deibert, Genevieve .....    | Florence, Colo.         |
| Dempewolf, Cecelia .....    | Greeley, Colo.          |
| Dillon, Mamie .....         | Sioux City, Iowa        |
| Dinsmore, Naomi .....       | Pueblo, Colo.           |
| Dissner, Nora .....         | Spalding, Neb.          |
| Dobbins, Joe .....          | Rochester, Mass.        |
| Dolph, Frances .....        | Delta, Colo.            |
| Doud, Mary .....            | Greeley, Colo.          |
| Downer, Marjorie E. ....    | Bailey, Colo.           |
| Drake, Leurada .....        | Greeley, Colo.          |
| Draper, Gladys .....        | Greeley, Colo.          |
| Dressor, Irene M. ....      | Holtville, Cal.         |
| Dunn, Irene .....           | Greeley, Colo.          |
| Durham, Jaunita .....       | Greeley, Colo.          |
| Dye, Anna .....             | Ault, Colo.             |
|                             |                         |
| Eaton, Glenn .....          | Greeley, Colo.          |
| Edquist, Lilly .....        | Denver, Colo.           |
| Edwards, Ruth .....         | Greeley, Colo.          |
| Ehrhardt, Minna .....       | Greeley, Colo.          |
| Eichel, Louise .....        | Fountain, Colo.         |
| Elam, Fern .....            | Greeley, Colo.          |
| Elam, Velma .....           | Greeley, Colo.          |
| Elder, Flora .....          | Greeley, Colo.          |
| Elder, Ruth .....           | North Platte, Neb.      |
| Elliott, Eula .....         | Alma, Neb.              |
| Engel, Anna .....           | Rico, Colo.             |
| Englebrecht, Pearl .....    | Rifle, Colo.            |
| Erb, Edith .....            | Denver, Colo.           |
| Erwin, Ralph .....          | Greeley, Colo.          |
| Esiman, Allegra .....       | Colorado Springs, Colo. |
| Etheridge, Ellis .....      | Greeley, Colo.          |
| Evans, Anna .....           | Coal Creek, Colo.       |
| Evans, Dave .....           | Greeley, Colo.          |
| Ewing, Mary .....           | Greeley, Colo.          |
|                             |                         |
| Fabrizie, Frank .....       | Louisville, Colo.       |
| Faith, Elsie .....          | Denver, Colo.           |
| Farrell, Frances .....      | Aurora, Neb.            |
| Fasen, Louise .....         | Cheyenne, Wyo.          |
| Fedde, Olga .....           | Fowler, Colo.           |
| Fenner, Bertha .....        | Jewell, Kan.            |
| Fenney, Fern .....          | Greeley, Colo.          |
| Fenner, Myrlie .....        | Jewell, Kan.            |
| Ferree, Pearl W. ....       | Sugar City, Colo.       |
| Fielder, Hattie .....       | Greeley, Colo.          |

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| Finley, Winona .....       | Greeley, Colo.          |
| Fleming, Ruth .....        | Greeley, Colo.          |
| Flint, Lucy .....          | Cedaredge, Colo.        |
| Flitner, Geraldine .....   | Greybull, Wyo.          |
| Foresman, Grace .....      | Canon City, Colo.       |
| Forester, Gladys .....     | Greeley, Colo.          |
| Forester, Leah .....       | Greeley, Colo.          |
| Forester, Ida May .....    | Greeley, Colo.          |
| Forgette, Mary .....       | Spalding, Neb.          |
| Foster, Blanche .....      | Greeley, Colo.          |
| Foster, Hazel .....        | Montrose, Colo.         |
| Franchs, Louise .....      | Trinidad, Colo.         |
| Francia, Theresa .....     | Louisville, Colo.       |
| Fraser, Mabel J. ....      | Akron, Colo.            |
| Frischke, Helen .....      | Columbus, Mont.         |
| Friedman, Julia .....      | Denver, Colo.           |
| Freezman, Wm. L. ....      | Briggsdale, Colo.       |
| Frey, Helen .....          | Adena, Colo.            |
| Fryklund, V. C. ....       | Greeley, Colo.          |
| Funk, Mrs. Helen .....     | Greeley, Colo.          |
|                            |                         |
| Gaines, Aletha M. ....     | Greeley, Colo.          |
| Garnsey, Wm. ....          | Greeley, Colo.          |
| Geiser, Bernard .....      | Monte Vista, Colo.      |
| Gilbert, Hazel .....       | Boyer, Colo.            |
| Gilbert, Jeannette .....   | Colorado Springs, Colo. |
| Gill, Helen .....          | Fort Morgan, Colo.      |
| Gillespie, Marie .....     | Colorado Springs, Colo. |
| Gillian, Leta .....        | Boulder, Colo.          |
| Ginapp, Lucille .....      | Wheatland, Wyo.         |
| Ginther, Carrie .....      | Greeley, Colo.          |
| Gladstone, Amy .....       | Greeley, Colo.          |
| Glafcke, Catherine .....   | Greeley, Colo.          |
| Glenn, Myra E. ....        | Denver, Colo.           |
| Goontz, Helen .....        | Goodrich, Colo.         |
| Gordon, Grace .....        | Pueblo, Colo.           |
| Goss, Bernice A. ....      | Greeley, Colo.          |
| Gosselin, Nellie M. ....   | Greeley, Colo.          |
| Goulette, Mrs. Emma ..     | Greeley, Colo.          |
| Gourley, Ruth .....        | Meeker, Colo.           |
| Grant, Alister .....       | Evans, Colo.            |
| Green, Mrs. Anna .....     | Greeley, Colo.          |
| Greenamyre, Katherine ..   | Greeley, Colo.          |
| Greer, Lois .....          | Greeley, Colo.          |
| Gregg, Clara Irene .....   | Edgewater, Colo.        |
| Gregory, Ruth .....        | Harlan, Iowa            |
| Griffith, Fern .....       | Greeley, Colo.          |
| Griffith, Lois F. ....     | Greeley, Colo.          |
| Gutridge, Shirley .....    | Greeley, Colo.          |
|                            |                         |
| Hall, Ila .....            | Greeley, Colo.          |
| Hall, Sibbel K. ....       | Denver, Colo.           |
| Hamlin, Helen .....        | Otis, Colo.             |
| Hammond, Dolores .....     | Paonia, Colo.           |
| Hanna, Marguerite .....    | Greeley, Colo.          |
| Harper, J. D. ....         | Greeley, Colo.          |
| Harper, Meryl .....        | Greeley, Colo.          |
| Harrington, Genevieve ..   | La Salle, Colo.         |
| Harrington, Marjorie ..... | Butte, Mont.            |
| Harris, Beth .....         | Carbondale, Colo.       |
| Harrison, Caroline .....   | Pueblo, Colo.           |
| Hartman, Donna .....       | Hotchkiss, Colo.        |
| Hause, Alice M. ....       | Fort Lupton, Colo.      |
| Hayes, Nellie D. ....      | Greeley, Colo.          |
| Hauson, Linnea .....       | Aspen, Colo.            |
| Hawthorne, Ruth .....      | Fort Morgan, Colo.      |
| Hedeon, Eleanor .....      | Denver, Colo.           |
| Heffner, Thelma .....      | Denver, Colo.           |
| Hereford, Anita .....      | Fort Lupton, Colo.      |
| Herrndon, Marie .....      | Deora, Colo.            |
| Herrington, Caroline ..... | Pierce, Colo.           |
| Hester, Bernice .....      | Denver, Colo.           |
| Hewes, George .....        | Greeley, Colo.          |
| Hickman, Mrs. Luther ..... | Greeley, Colo.          |
| Hill, Gwendolyn .....      | Antonito, Colo.         |
| Hill, Jennie .....         | Beloit, Kan.            |
| Hinds, Archie .....        | Sedgwick, Colo.         |
| Hollmer, Evelyn .....      | Denver, Colo.           |
| Hooper, Frances .....      | Denver, Colo.           |
| Howarth, Marian .....      | Greeley, Colo.          |
| Howe, Nolan .....          | Akron, Colo.            |
| Howlett, Virginia .....    | Delta, Colo.            |

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| Heuftle, Albert .....      | Russell, Kan.           |
| Hunt, Adeline .....        | Boulder, Colo.          |
| Huntington, Mary .....     | Greeley, Colo.          |
| Humphrey, F. T. ....       | Greeley, Colo.          |
| Hurford, Elizabeth .....   | Pueblo, Colo.           |
| Hurianek, Vlasta .....     | Jarosa, Colo.           |
| Hurich, Elsa .....         | Eaton, Colo.            |
| Ickis, Katherine L. ....   | Colorado Springs, Colo. |
| Imboden, Helen .....       | Greeley, Colo.          |
| Ingle, Erle B. ....        | Greeley, Colo.          |
| Intermill, Iris .....      | Haxtun, Colo.           |
| Iubatti, Filomena .....    | Canon City, Colo.       |
| Iubatti, Minnie .....      | Canon City, Colo.       |
| Irvin, George .....        | Sanford, Colo.          |
| Irwin, Marie .....         | Englewood, Colo.        |
| Irwin, Viva .....          | Canon City, Colo.       |
| James, Leota .....         | Greeley, Colo.          |
| Jamieson, Elsie .....      | Cheyenne, Wyo.          |
| Jerrell, E. W. ....        | Minturn, Colo.          |
| John, Thelma .....         | Pierce, Colo.           |
| Johnson, Alice .....       | Greeley, Colo.          |
| Johnson, Bernice .....     | Denver, Colo.           |
| Johnson, Dorothy .....     | Greeley, Colo.          |
| Johnson, Elva .....        | Penrose, Colo.          |
| Johnson, H. O. ....        | Greeley, Colo.          |
| Johnson, Thelma .....      | Eaton, Colo.            |
| Johnson, Veda .....        | Greeley, Colo.          |
| Jones, Alice .....         | Greeley, Colo.          |
| Jones, Esther .....        | Denver, Colo.           |
| Jenkins, Isabel .....      | Colorado Springs, Colo. |
| Jones, Lois .....          | Mount Streeter, Colo.   |
| Kapelke, Marie .....       | Colorado Springs, Colo. |
| Kavich, Ruby .....         | Fremont, Neb.           |
| Kearns, Ellen .....        | Denver, Colo.           |
| Keirnes, Geneva .....      | Loveland, Colo.         |
| Kelly, Bernice .....       | Greeley, Colo.          |
| Kelly, Mrs. J. Blanc ..... | Greeley, Colo.          |
| Kelly, Floyd .....         | Nunn, Colo.             |
| Kemink, Angelina .....     | Denver, Colo.           |
| Kendel, Josephine .....    | Greeley, Colo.          |
| Kennedy, Pearl .....       | Greeley, Colo.          |
| Kenny, Mrs. Bessie .....   | Bonanza, Colo.          |
| Kenny, Thomas .....        | Denver, Colo.           |
| Kerr, Sylvia .....         | Golden, Colo.           |
| Kessler, Leola .....       | Denver, Colo.           |
| Ketchum, Margaret .....    | Denver, Colo.           |
| Key, Verdabelle .....      | Trinidad, Colo.         |
| Keyes, Margaret J. ....    | Greeley, Colo.          |
| Kincaid, Laure .....       | La Veta, Colo.          |
| King, Florence .....       | Greeley, Colo.          |
| King, Julia .....          | Greeley, Colo.          |
| King, Wesley B. ....       | Greeley, Colo.          |
| Kirby, Marjorie .....      | Georgetown, Colo.       |
| Kittle, Leslie .....       | Greeley, Colo.          |
| Klee, Eva M. ....          | Denver, Colo.           |
| Klein, Carrie A. ....      | Denver, Colo.           |
| Knecht, Amanda .....       | Denver, Colo.           |
| Knecht, Erminnie .....     | Greeley, Colo.          |
| Knies, W. L. ....          | Flagler, Colo.          |
| Knoll, Julia .....         | Delta, Colo.            |
| Koogle, Mrs. Rose .....    | Littleton, Colo.        |
| Koogle, Wesley .....       | Greeley, Colo.          |
| Lagerquist, Anita .....    | Greeley, Colo.          |
| Landgraf, Emily .....      | Denver, Colo.           |
| Lang, Mrs. Howard .....    | Greeley, Colo.          |
| Langham, Fannie .....      | Greenville, Ill.        |
| Lamb, Helen .....          | Brighton, Colo.         |
| Last, Charlotte .....      | Manitou, Colo.          |
| Lauck, Gertrude .....      | Hudson, Colo.           |
| Lawlat, Margaret .....     | Denver, Colo.           |
| Lawrence, Carl E. ....     | Greeley, Colo.          |
| Leazer, Florence .....     | Ocheyedan, Iowa         |
| Lee, Homer .....           | Greeley, Colo.          |
| Lee, Lola M. ....          | Greeley, Colo.          |
| Leece, Marie L. ....       | Twin Falls, Idaho       |
| Lepel, Charlotte .....     | Vilas, Colo.            |
| Lewis, Ione .....          | La Junta, Colo.         |
| Lewis, Maurine .....       | La Junta, Colo.         |

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|-----------------------------|-------------------------|
| Lind, Eva .....             | Greeley, Colo.          |
| Lind, Nellie .....          | Denver, Colo.           |
| Lindsey, Nora .....         | Stoneham, Colo.         |
| Link, Isa .....             | Glenwood Springs, Colo. |
| Lipp, H. Pearl .....        | Greeley, Colo.          |
| Littler, Ray N. ....        | Greeley, Colo.          |
| Lofgren, Ruth .....         | Durango, Colo.          |
| Long, Gladys .....          | Salida, Colo.           |
| Lord, Margaret .....        | Monmouth, Ill.          |
| Lovern, Ruth .....          | Pueblo, Colo.           |
| Lowe, Florence .....        | Greeley, Colo.          |
| Lund, Florence .....        | Elizabeth, Colo.        |
| Lyster, Elsie M. ....       | Greeley, Colo.          |
| Lytle, Alan .....           | Greeley, Colo.          |
| McAlear, Georgene .....     | Lamar, Colo.            |
| McArthur, Margaret .....    | Greeley, Colo.          |
| McCampbell, Marion .....    | Pueblo, Colo.           |
| McCarty, Anna .....         | Greeley, Colo.          |
| McCarty, Agnes .....        | Fort Collins, Colo.     |
| McCarty, Edna M. ....       | Washington, Iowa        |
| McCarter, Mrs. Mary .....   | Greeley, Colo.          |
| McClenahan, Elizabeth ..... | Greeley, Colo.          |
| McCormick, Belle .....      | Florence, Colo.         |
| McCorckle, Dee .....        | Greeley, Colo.          |
| McCoy, Linda .....          | Colorado Springs, Colo. |
| McCoy, Darl .....           | Colorado Springs, Colo. |
| McCutcheon, Jane .....      | Greeley, Colo.          |
| McGlenn, Mildred .....      | Windsor, Colo.          |
| McGovern, Margaret .....    | Denver, Colo.           |
| McGuirk, Mary .....         | Glenwood Springs, Colo. |
| McIntyre, Myrtle .....      | Denver, Colo.           |
| McKinstry, Ethel .....      | Sedgwick, Colo.         |
| McKinstry, Kenneth .....    | Greeley, Colo.          |
| McKnight, Edith .....       | Denver, Colo.           |
| McLogan, Muriel .....       | Denver, Colo.           |
| McLoughlin, Eunice .....    | Greeley, Colo.          |
| McMelan, Marion .....       | Greeley, Colo.          |
| McMeehan, Helen .....       | La Salle, Colo.         |
| McMillan, Myrta .....       | Greeley, Colo.          |
| McNeel, Georgia .....       | North Platte, Neb.      |
| McNeel, Melba .....         | Lincoln, Neb.           |
| McQuiston, Pauline .....    | Greeley, Colo.          |
| McWhorter, Irene .....      | Denver, Colo.           |
| Madarasz, Irma .....        | Denver, Colo.           |
| Mack, Lois .....            | Greeley, Colo.          |
| Mackay, Mrs. Donald .....   | Greeley, Colo.          |
| Manlove, Esther .....       | Canon City, Colo.       |
| Marker, Dewey .....         | La Veta, Colo.          |
| Martin, Henri Ella .....    | Denver, Colo.           |
| Martin, Bula .....          | Greeley, Colo.          |
| Martin, Alice J. ....       | Greeley, Colo.          |
| Mater, Lois .....           | Morenci, Ariz.          |
| Mayhew, Ida .....           | Colorado Springs, Colo. |
| Mellor, Hilda .....         | Greeley, Colo.          |
| Metzer, Maude .....         | Remer, Minn.            |
| Michels, Ruth .....         | Sterling, Colo.         |
| Mitchell, Delitha .....     | Greeley, Colo.          |
| Mitchell, Edith .....       | Cornish, Colo.          |
| Mitchell, Ethel .....       | Boulder, Colo.          |
| Mitchell, Florence .....    | Denver, Colo.           |
| Mitchell, Margaret .....    | Haxtun, Colo.           |
| Miller, Effie D. ....       | Wellington, Colo.       |
| Milligan, Floy .....        | Montrose, Colo.         |
| Miller, Geneva .....        | Greeley, Colo.          |
| Miller, Waldo S. ....       | Waltham, Mass.          |
| Miller, Vandella .....      | Elizabeth, Colo.        |
| Milner, Eva .....           | Florence, Colo.         |
| Moffatt, John .....         | Colorado Springs, Colo. |
| Moline, Nellie .....        | Denver, Colo.           |
| Monell, Mabel .....         | Montrose, Colo.         |
| Monsch, Hester .....        | Pueblo, Colo.           |
| Moon, Addie E. ....         | Golden, Colo.           |
| Moon, Edith .....           | Springfield, Mo.        |
| Moore, Lorena .....         | Curtis, Neb.            |
| Moorhouse, Essie .....      | Canon City, Colo.       |
| Morgan, Hayden .....        | Greeley, Colo.          |
| Morgan, Ida .....           | Montecello, Ky.         |
| Morris, Minnie .....        | Greeley, Colo.          |
| Morgason, Mildred .....     | Norwood, Colo.          |
| Morgason, Ruth .....        | Norwood, Colo.          |
| Morris, Dorothy .....       | Greeley, Colo.          |



|                      |       |                         |
|----------------------|-------|-------------------------|
| Morris, Everett W.   | ..... | Greeley, Colo.          |
| Morris, Marguerite   | ..... | Greeley, Colo.          |
| Morris, John E.      | ..... | Greeley, Colo.          |
| Moss, Susannah       | ..... | Greeley, Colo.          |
| Mraz, Dorothy        | ..... | Colorado Springs, Colo. |
| Murray, Gertrude     | ..... | Haxtun, Colo.           |
| Musser, Marie        | ..... | Greeley, Colo.          |
| Murray, Hazel        | ..... | Trinidad, Colo.         |
| Myers, Frances       | ..... | Greeley, Colo.          |
| Myers, Mada B.       | ..... | Greeley, Colo.          |
|                      |       |                         |
| Nance, Dorothy E.    | ..... | Durango, Colo.          |
| Neal, Paul           | ..... | Chivington, Colo.       |
| Neill, Stewart       | ..... | Greeley, Colo.          |
| Neilson, Audry       | ..... | Fort Morgan, Colo.      |
| Nelson, Blanche      | ..... | Trinidad, Colo.         |
| Nelson, Lucille A.   | ..... | Fort Morgan, Colo.      |
| Nesbill, Ora         | ..... | Colorado Springs, Colo. |
| Nims, Eleanor        | ..... | Greeley, Colo.          |
| Nolte, George        | ..... | Greeley, Colo.          |
| Nolte, Esther        | ..... | Greeley, Colo.          |
| Norcross, Harold     | ..... | Greeley, Colo.          |
| Norman, Ruby         | ..... | Canon City, Colo.       |
| Nussbaum, Agnes      | ..... | Greeley, Colo.          |
|                      |       |                         |
| Old, Ellen           | ..... | Greeley, Colo.          |
| Olinger, Evelyn      | ..... | Greeley, Colo.          |
| Oliver, Bernice      | ..... | Greeley, Colo.          |
| Organ, Ellen         | ..... | Rico, Colo.             |
| Osmer, Lillie C.     | ..... | Greeley, Colo.          |
| Ouderkirk, Lillian   | ..... | Greeley, Colo.          |
| Oversen, Lena        | ..... | Greeley, Colo.          |
| Overton, Ruth        | ..... | Colorado Springs, Colo. |
| Otten, Maude         | ..... | Brandon, Colo.          |
| Ownbey, Cincio       | ..... | Greeley, Colo.          |
|                      |       |                         |
| Packard, Lillian C.  | ..... | Greeley, Colo.          |
| Paine, Ella          | ..... | Byers, Colo.            |
| Palmer, Bertha       | ..... | Greeley, Colo.          |
| Palmer, Esther       | ..... | Greeley, Colo.          |
| Palmquist, Christina | ..... | Denver, Colo.           |
| Pancake, Florence    | ..... | Loveland, Colo.         |
| Parker, Augusta      | ..... | Hutchinson, Kan.        |
| Parks, Grace         | ..... | Greeley, Colo.          |
| Parker, Virginia     | ..... | Kiowa, Colo.            |
| Patterson, Mamie     | ..... | Bushnell, Neb.          |
| Patterson, Ona C.    | ..... | Greeley, Colo.          |
| Patton, Jessie       | ..... | Monte Vista, Colo.      |
| Pearson, Goldie      | ..... | Hugo, Colo.             |
| Pearson, Lillie      | ..... | Ault, Colo.             |
| Pearson, Lillie      | ..... | Valley, Neb.            |
| Pepper, Audrey E.    | ..... | Windsor, Colo.          |
| Penney, Agnes        | ..... | Pueblo, Colo.           |
| Perfect, Velma       | ..... | Denver, Colo.           |
| Petit, Obara         | ..... | Greeley, Colo.          |
| Perry, Kenneth       | ..... | Fort Lupton, Colo.      |
| Phelps, Chester      | ..... | Greeley, Colo.          |
| Phelps, Mrs. Jennie  | ..... | Greeley, Colo.          |
| Phillips, Josephine  | ..... | Canon City, Colo.       |
| Phippeny, Mary       | ..... | Greeley, Colo.          |
| Phippeny, Walter     | ..... | Greeley, Colo.          |
| Pierce, Myrtle       | ..... | Greeley, Colo.          |
| Pickard, Ernest L.   | ..... | Ordway, Colo.           |
| Pickett, Pauline M.  | ..... | Greeley, Colo.          |
| Poole, Katherine     | ..... | Farmington, Colo.       |
| Potts, Florence      | ..... | Montrose, Colo.         |
| Potter, Clarice      | ..... | Hoehnes, Colo.          |
| Prunty, Beulah       | ..... | Arvada, Colo.           |
| Prunty, Lloyd        | ..... | Greeley, Colo.          |
| Prunty, Leuty        | ..... | Greeley, Colo.          |
| Pragst, Augusta      | ..... | Greeley, Colo.          |
| Prescott, Blake D.   | ..... | Greeley, Colo.          |
| Preston, Harold      | ..... | Greeley, Colo.          |
| Priddy, Ina          | ..... | Pierce, Colo.           |
| Preuhs, Clare        | ..... | Greeley, Colo.          |
| Pulliam, Josephine   | ..... | Durango, Colo.          |
|                      |       |                         |
| Queary, Sarah K.     | ..... | Greeley, Colo.          |
| Quimby, Grace E.     | ..... | Greeley, Colo.          |

|                        |                          |
|------------------------|--------------------------|
| Rae, Jessie M.         | Haxtun, Colo.            |
| Ramsay, Madine         | Greeley, Colo.           |
| Rardin, Mabelle        | Colorado Springs, Colo.  |
| Ray, Mrs. Zella        | Manitou, Colo.           |
| Ream, Mary L.          | Greeley, Colo.           |
| Reed, Esther           | Denver, Colo.            |
| Reed, Ethel B.         | Denver, Colo.            |
| Reese, Ruth            | Longmont, Colo.          |
| Rhen, Edna             | Denver, Colo.            |
| Rhen, Violet           | Denver, Colo.            |
| Rhinehart, Josephine   | Fountain, Colo.          |
| Rhodes, Ilene          | Smith Center, Kan.       |
| Ringle, Margaret       | Greeley, Colo.           |
| Risley, Clarinda       | Grand Junction, Colo.    |
| Rienks, Maude          | Greeley, Colo.           |
| Rice, Gladys           | Denver, Colo.            |
| Roach, Helen           | Wheatland, Wyo.          |
| Roach, Myrtle          | Wheatland, Wyo.          |
| Roberts, Russel M.     | Larned, Kan.             |
| Roewe, Alma E.         | Greeley, Colo.           |
| Rooney, Margaret       | Denver, Colo.            |
| Rook, Virginia F.      | Westminster, Colo.       |
| Roop, Nora C.          | Westminster, Colo.       |
| Routh, Jewell          | Wiley, Colo.             |
| Ruth, Lela             | Greeley, Colo.           |
| Salazar, Belinda       | San Luis, Colo.          |
| Salberg, Lillie        | Greeley, Colo.           |
| Saathoff, W. H.        | Greeley, Colo.           |
| Sanstead, Floyd W.     | Welland, Colo.           |
| Schemel, Margaret      | Lincoln, Neb.            |
| Schuster, Florence     | Grand Lake, Colo.        |
| Schnebly, Genevieve    | Bovero, Colo.            |
| Schwab, Gertrude       | Dunlap, Iowa             |
| Schwab, Agnes          | Dunlap, Iowa             |
| Scot, Grace J.         | Rudyard, Mich.           |
| Search, Paul M.        | Wilkes Barre, Pa.        |
| Search, W. E.          | Greeley, Colo.           |
| Seberell, Cora Belle   | Fort Collins, Colo.      |
| Serafini, Elvira M.    | Denver, Colo.            |
| Shanley, Theresa       | Pinedale, Wyo.           |
| Shattuck, Lucille      | Greeley, Colo.           |
| Sheridan, Margaret     | Denver, Colo.            |
| Shifflett, Rowena      | Dirgonal, Iowa           |
| Shipman, Manilla       | Calhan, Colo.            |
| Sides, Lucille         | Yoder, Colo.             |
| Sims, Isabelle         | Paonia, Colo.            |
| Sims, Irving           | Paonia, Colo.            |
| Singer, Olive          | Haswell, Colo.           |
| Skinker, Mary S.       | St. Louis, Mo.           |
| Smith, Eric A. C.      | Greeley, Colo.           |
| Smith, Lillian         | Boulder, Colo.           |
| Smith, Marie           | Fort Morgan, Colo.       |
| Smith, Mildred         | Louisville, Colo.        |
| Smith, Ralph           | Greeley, Colo.           |
| Smith, Wells           | Greeley, Colo.           |
| Smith, Winifred        | Denver, Colo.            |
| Snook, Mern            | Greeley, Colo.           |
| Sorenson, Agnes        | Harrington, Neb.         |
| Spencer, Verlin        | Greeley, Colo.           |
| Sprinkle, Helen E.     | Canon City, Colo.        |
| Stansfield, Laura      | Denver, Colo.            |
| Steck, Mabel           | Southerland, Neb.        |
| Steidley, Lurene       | Fort Collins, Colo.      |
| Stewart, Chas. A.      | Siol Root, India         |
| Stewart, Lulu          | De Beque, Colo.          |
| Stevens, C. E.         | Akron, Colo.             |
| Stevenson, Jessica     | Greeley, Colo.           |
| Stoast, Pauline G.     | Denver, Colo.            |
| Stone, Helen           | Arvada, Colo.            |
| Struthers, Christine   | Delagua, Colo.           |
| Stukey, Glessner       | Steamboat Springs, Colo. |
| Strong, Ralph          | Greeley, Colo.           |
| Svedman, Hattie M.     | Windsor, Colo.           |
| Swain, Lottie          | Brighton, Colo.          |
| Sweeney, Mrs. Hattie   | Greeley, Colo.           |
| Swanson, Mabel         | Greeley, Colo.           |
| Taylor, Mrs. Josephine | Denver, Colo.            |
| Thomas, Harry          | Sanford, Colo.           |
| Teller, Emma           | Windsor, Colo.           |
| Terree, Pearl          | Greeley, Colo.           |
| Theys, Henrietta       | Denver, Colo.            |

|                            |                    |       |
|----------------------------|--------------------|-------|
| Thomas, Mae .....          | Colorado Springs,  | Colo. |
| Thompson, Marion .....     | Greeley,           | Colo. |
| Thompson, Petra .....      | Kiowa,             | Colo. |
| Thorn, Marjorie .....      | Rocky Ford,        | Colo. |
| Thorne, Helen L. ....      | Walsenburg,        | Colo. |
| Tibbetts, Blanche .....    | Greeley,           | Colo. |
| Tober, Bill .....          | Greeley,           | Colo. |
| Tober, Lois E. ....        | Abilene,           | Kan.  |
| Todd, Edith .....          | Del Norte,         | Colo. |
| Todd, Katherine .....      | Greeley,           | Colo. |
| Toffler, Grace L. ....     | Greeley,           | Colo. |
| Topping, R. C. ....        | Greeley,           | Colo. |
| Tower, Adaline .....       | Denver,            | Colo. |
| Tope, Lena .....           | Greeley,           | Colo. |
| Tregoning, Joe .....       | Greeley,           | Colo. |
| Treziise, Edith .....      | Greeley,           | Colo. |
| Tuttle, Caroline .....     | Oklahoma City,     | Okla. |
| Tyler, Ruth .....          | Boulder,           | Colo. |
| Tyson, Ivernia .....       | Pueblo,            | Colo. |
| Van Cleave Durward .....   | Holbrook,          | Neb.  |
| Veyra Fortunato de .....   | Philippine Islands |       |
| Vinton, Jaunita .....      | Grand Junction,    | Colo. |
| Wadleigh, Blanche .....    | West Cliffe,       | Colo. |
| Wagoner, Effie .....       | Florence,          | Colo. |
| Walcher, Gretchen .....    | Canon City,        | Colo. |
| Waldhauser, Esther .....   | Greeley,           | Colo. |
| Waldhauser, Dorothea ..... | Greeley,           | Colo. |
| Warner, Dorothy .....      | Greeley,           | Colo. |
| Walters, Mildred .....     | Greeley,           | Colo. |
| Walker, Editha .....       | Simla,             | Colo. |
| Wallace, Cecil .....       | Alamosa,           | Colo. |
| Walsh, Nellie E. ....      | Pueblo,            | Colo. |
| Wassaw, Esther .....       | Cripple Creek,     | Colo. |
| Waring, Madelina .....     | Fort Lupton,       | Colo. |
| Waterman, Verna .....      | Eckert,            | Colo. |
| Watkins, Louise .....      | Greeley,           | Colo. |
| Webb, Mrs. Elba .....      | Greeley,           | Colo. |
| Webb, John A. ....         | Greeley,           | Colo. |
| Weichand, Ada .....        | Penrose,           | Colo. |
| Wells, Maude .....         | Greeley,           | Colo. |
| Wemyse, Elzpeth .....      | Cripple Creek,     | Colo. |
| Wherren, Hazel .....       | Greeley,           | Colo. |
| Whitten, Florence .....    | Gill,              | Colo. |
| White, Mrs. Mabel .....    | Greeley,           | Colo. |
| White, Mary .....          | Colorado Springs,  | Colo. |
| White, Ona .....           | Karval,            | Colo. |
| Wicks, Lena .....          | Albion,            | Mich. |
| Wilcox, Ruth .....         | Holyoke,           | Colo. |
| Williams, Mrs. H. M. ....  | Greeley,           | Colo. |
| Williams, Esther .....     | Fort Collins,      | Colo. |
| Williams, Della .....      | Greeley,           | Colo. |
| Williams, Frances .....    | Goldfield,         | Colo. |
| Williams, Horace .....     | Greeley,           | Colo. |
| Williams, Lois .....       | Greeley,           | Colo. |
| Williams, Mildred E. ....  | Victor,            | Colo. |
| Williams, Ruby .....       | Greeley,           | Colo. |
| Williams, Urias .....      | Greeley,           | Colo. |
| Wilson, Genevieve .....    | Milliken,          | Colo. |
| Wilson, Lillie N. ....     | Nunn,              | Colo. |
| Winkler, Pauline .....     | Pierce,            | Colo. |
| Wood, Frances E. ....      | Montrose,          | Colo. |
| Wood, Howard .....         | Greeley,           | Colo. |
| Wood, Ruth .....           | Greeley,           | Colo. |
| Woodward, Ruth .....       | Greeley,           | Colo. |
| Wolfer, Margaret .....     | Fort Collins,      | Colo. |
| Wonder, Genevieve .....    | Montrose,          | Colo. |
| Worley, Ruby .....         | Colorado Springs,  | Colo. |
| Wright, Ethel .....        | Greeley,           | Colo. |
| Wrinkle, William .....     | Greeley,           | Colo. |
| Wylde-Brown, Gladys .....  | Friend,            | Neb.  |
| Yates, Bonnie J. ....      | Yuma,              | Colo. |
| Yates, E. O. ....          | Greeley,           | Colo. |
| Yingst, Ina L. ....        | Hugo,              | Colo. |
| Zimmerman, Teresa .....    | Greeley,           | Colo. |
| Zaph, Madeline .....       | Greeley,           | Colo. |

SUMMER QUARTER  
1921

|                         |                             |
|-------------------------|-----------------------------|
| Abbott, Carlotta        | Denver, Colo.               |
| Acuff, Helen            | Pueblo, Colo.               |
| Adams, Birdie F         | Pueblo, Colo.               |
| Adams, Doris            | East Lake, Colo.            |
| Adams, Hazel            | Union, Ore.                 |
| Adams, Sister Mary C.   | Denver, Colo.               |
| Adolph, Joseph          | Greeley, Colo.              |
| Agunod, Nemesis         | Washington, D. C.           |
| Aitken, Louise          | Colorado Springs, Colo.     |
| Alber, Hubert           | Greeley, Colo.              |
| Albertson, Cyrus E.     | Greeley, Colo.              |
| Albers, Lulu E.         | Eads, Colo.                 |
| Albright, John          | Alamosa, Colo.              |
| Aleasman, Belle         | Greeley, Colo.              |
| Alexander, Calvin       | Greeley, Colo.              |
| Alexander, Cera         | Bridgeport, Texas           |
| Allen, Alice            | Chickasha, Okla.            |
| Allen, Ara Mae          | Wayland, Iowa               |
| Allen, Mrs. Florence E. | Denver, Colo.               |
| Allen, Henry V.         | Otis, Colo.                 |
| Allen, Mrs. Henry V.    | Otis, Colo.                 |
| Allen, Louise           | Greeley, Colo.              |
| Allen, Lyla             | New Raymer, Colo.           |
| Allen, Mary Agnes       | Colorado Springs, Colo.     |
| Allen, Mildred E.       | Boulder, Colo.              |
| Allison, Grace E.       | Denver, Colo.               |
| Allstatt, Thomas J.     | Farrell, Ind.               |
| Altheida, Matilda       | Quincy, Ill.                |
| Ambrose, Amanta         | Fort Morgan, Colo.          |
| Ambrose, Effie K.       | Olny Springs, Colo.         |
| Amick, Irene            | Meeker, Colo.               |
| Ammerman, Marie         | Denver, Colo.               |
| Ammons, Nancy           | Tipton, Okla.               |
| Anderson, Agnes N.      | Taylorville, Ill.           |
| Anderson, Alfred P. Jr. | Kendrick, Colo.             |
| Anderson, Anna M.       | Gypsum, Colo.               |
| Anderson, Edith L.      | Loveland, Colo.             |
| Anderson, Helma         | Hennepin, Ill.              |
| Anderson, Hulda         | Hennepin, Ill.              |
| Anderson, Julia         | Fort Collins, Colo.         |
| Anderson, Marie         | Pinneo, Colo.               |
| Anderson, Myrtle E.     | Denver, Colo.               |
| Andrews, Mary           | Brush, Colo.                |
| Archer, Mary Jane       | Stockton, Ill.              |
| Armstrong, Rose         | Galveston, Texas            |
| Arnett, Irena E.        | Corlinville, Ill.           |
| Arnold, Gladys          | Denver, Colo.               |
| Arnold, Hattie L.       | Stockton, Ill.              |
| Arnold, Lola C.         | Stockton, Ill.              |
| Arozena, Frances        | El Paso, Texas              |
| Ashbrook, Belle         | St. Joseph, Mo.             |
| Ashby, Carrie M.        | Greeley, Colo.              |
| Atkins, Addie B.        | Pueblo, Colo.               |
| Auer, Gertrude          | Dalbert, Texas              |
| Avison, Florence        | Green Mountain Falls, Colo. |
| Azbill, Hattie          | Cherokee, Okla.             |
|                         |                             |
| Babb, Bertha M.         | Greeley, Colo.              |
| Babbitt, Mrs. Alice .H. | Denver, Colo.               |
| Babcock, Carrie         | Littleton, Colo.            |
| Babcock, Mrs. Vera      | Oak Creek, Colo.            |
| Baerreson, Veola M.     | Denver, Colo.               |
| Baily, Iva M.           | Canon City, Colo.           |
| Baily, Lucille          | Lawton, Okla.               |
| Baird, Dorothy Mildred  | Agenda, Kan.                |
| Baker, Jessie L.        | Bisbee, Ariz.               |
| Baker, Rachel J.        | Morrison, Colo.             |
| Baker, Zula I.          | Eads, Colo.                 |
| Baldwin, G. I.          | Greeley, Colo.              |
| Ball, Elberta           | Farmersville, Ill.          |
| Ball, Katheryn          | Denver, Colo.               |
| Balkin, Martha N.       | Denver, Colo.               |
| Banks, Marjorie         | Oak Creek, Colo.            |
| Barber, Sarah           | Grover, Colo.               |
| Barbieri, Jennie        | Denver, Colo.               |
| Barbour, Florence       | Gainsville, Ill.            |
| Barbour, Lillian M.     | Wheatridge, Colo.           |

|                        |                         |
|------------------------|-------------------------|
| Bartholomew, Beulah    | Colorado Springs, Colo. |
| Bartlesan, Helen       | Muskogee, Okla.         |
| Barnes, Mrs. Abbie C.  | Saint Joseph, Mo.       |
| Barnett, Myrtle        | Council Bluffs, Iowa    |
| Bartlett, Mary         | Greeley, Colo.          |
| Bartlett, Daisy B.     | Council Bluffs, Iowa    |
| Bartlett, F.           | Council Bluffs, Iowa    |
| Barham, Della          | Stephensville, Texas    |
| Barkmann, Eda          | Junction City, Kan.     |
| Bartlett, Mary         | Trinidad, Colo.         |
| Barry, John H. Jr.     | Glove, Ariz.            |
| Bartlett, Eva H.       | Jefferson, Colo.        |
| Bashore, Elizabeth     | Santa Ana, Calif.       |
| Baslin, Marguerite     | Colorado Springs, Colo. |
| Basquin, Mrs. Olive    | Laird, Colo.            |
| Bass, Vesper J.        | Greeley, Colo.          |
| Bassler, Helen         | Denver, Colo.           |
| Batchelder, Marois     | Greeley, Colo.          |
| Bates, Chester A.      | Caddoa, Colo.           |
| Bates, Elena           | Denver, Colo.           |
| Batschelet, Ethel      | Greeley, Colo.          |
| Batschelet, Olive      | Pacota, Iowa            |
| Baughn, Lucille        | Mineral Wells, Texas    |
| Beahm, L. L.           | Delta, Colo.            |
| Beatson, Eunice        | Rockford, Ill.          |
| Beattie, Elizabeth A.  | Atchinson, Kan.         |
| Beatty, Mary E.        | Denver, Colo.           |
| Beck, Wm. L.           | Denver, Colo.           |
| Beckham, Mrs. Comin    | Mineral Wells, Texas    |
| Becker, Lillian C.     | Denver, Colo.           |
| Beechel, Edith E.      | Wayne, Neb.             |
| Beers, Carl J.         | Fort Collins, Colo.     |
| Berg, Gladys           | Leadville, Colo.        |
| Belcher, Geraldine F.  | Ault, Colo.             |
| Bell, Mae              | Arvada, Colo.           |
| Bell, Ruby             | Walsenburg, Colo.       |
| Bellwood, Tom O.       | Greeley, Colo.          |
| Bennett, Elizabeth     | Buckingham, Colo.       |
| Bennett, L. H.         | Wiley, Colo.            |
| Bennett, Ralph         | Dolores, Colo.          |
| Bennett, Rose          | Greeley, Colo.          |
| Benning, Vera          | Greeley, Colo.          |
| Bent, C. A.            | Berwind, Colo.          |
| Bent, Laura            | Berwind, Colo.          |
| Benton, Mildred        | Greeley, Colo.          |
| Berg, Eva M.           | Colorado Springs, Colo. |
| Berkovitz, Rose        | Pueblo, Colo.           |
| Bernstorf, Alma        | Boone, Colo.            |
| Bernstorf, Lydia S.    | Boone, Colo.            |
| Berringer, Marie       | Delta, Colo.            |
| Berry, Alice A.        | Colorado Springs, Colo. |
| Bertagnolli, Mae B.    | Denver, Colo.           |
| Betts, Grace           | Pueblo, Colo.           |
| Best, Beryl            | Dallas, Texas           |
| Biddle, Ruth           | Longmont, Colo.         |
| Bieri, Louise          | Denver, Colo.           |
| Billing, Elizabeth     | Lisbon, N. Dak.         |
| Birch, Nellie A.       | Leavenworth, Kan.       |
| Bittner, Katheryn      | Council Bluffs, Iowa    |
| Black, Margaret        | Cozad, Neb.             |
| Blackman, Esther       | Arapahoe, Neb.          |
| Blackmore, Alta H.     | Denver, Colo.           |
| Blagg, Blanche         | Neosho Falls, Kan.      |
| Blair, Marie E.        | Cripple Creek, Colo.    |
| Blair, Mary C.         | Dover, Colo.            |
| Blair, Pauline         | Eads, Colo.             |
| Blaisdell, Edith       | Paola, Kan.             |
| Blake, Verda           | Las Animas, Colo.       |
| Bliss, Cora M.         | Denver, Colo.           |
| Block, Sister Marie C. | Denver, Colo.           |
| Bloom, Elsie           | Granville, Ill.         |
| Boba, Mildred          | Denver, Colo.           |
| Boge, Mabel F.         | Denver, Colo.           |
| Bonham, Bonnie         | Wheatridge, Colo.       |
| Bonham, Ruth A.        | Wheatridge, Colo.       |
| Boston, Beulah         | Alva, Okla.             |
| Bowe, Wm. K.           | Ault, Colo.             |
| Bowers, Lorena M.      | Dallas, Texas           |
| Bowie, Katie           | Cheyenne, Wyo.          |
| Bowman, Inda F.        | Denver, Colo.           |
| Boyd, Evelyn           | Eads, Colo.             |
| Boyd, Louie Croft      | Greeley, Colo.          |
| Boyer, Monta J.        | Denver, Colo.           |
| Bracewell, Harold      | Greeley, Colo.          |
| Brady, Mildred         | Colorado Springs, Colo. |

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| Bradley, Margaret       | Denver, Colo.           |
| Brady, Minttie          | Greeley, Colo.          |
| Bramkamp, Ethel         | Denver, Colo.           |
| Branden, Elizabeth      | Otis, Colo.             |
| Brandt, Lucille         | Cherokee, Okla.         |
| Breck, Jane T.          | Richmond, Ky.           |
| Brennan, Mrs. Eva       | La Veta Colo.           |
| Brennan, Sister Mary C. | Denver, Colo.           |
| Bretz, Helen            | Gibbon, Neb.            |
| Briggs, Agnes           | Greeley, Colo.          |
| Briggs, Madge           | Denver, Colo.           |
| Brinken, Olivia         | Denver, Colo.           |
| Brislain, Mrs. Gladys   | Hanna, Wyo.             |
| Broadbent, Bettie L.    | Burley, Idaho           |
| Broadbent, H. M.        | Burley, Idaho           |
| Brock, Ethel            | Bridgeport, Texas.      |
| Brommer, Anne           | Haxtun, Colo.           |
| Brookhart, Viola        | Las Animas, Colo.       |
| Brooks, Mrs. Anna       | Greeley, Colo.          |
| Brooks, Zelma L.        | Omaha, Neb.             |
| Brown, Clara J.         | Gillespie, Ill.         |
| Brown, Ethel C.         | Colorado Springs, Colo. |
| Brown, Emily V.         | Denver, Colo.           |
| Brown, Mrs. Florence    | Longmont, Colo.         |
| Brown, Isabel C.        | Pueblo, Colo.           |
| Brown, Lillie           | Kanorado, Kan.          |
| Brown, Lula             | Kimball, Neb.           |
| Brown, Riley T.         | Brush, Colo.            |
| Browne, Annie           | Dallas, Texas           |
| Brueckner, Grace E.     | Greeley, Colo.          |
| Brunnell, W. C.         | Boulder, Colo.          |
| Brunstein, John C.      | Pierce, Colo.           |
| Brunton, Muriel E.      | Herman, Neb.            |
| Bryson, Elizabeth       | Louisiana, Mo.          |
| Buchanan, Helen         | Durango, Colo.          |
| Buchanan, Sue W.        | Fort Worth, Texas       |
| Buck, Emily             | Greeley, Colo.          |
| Buck, Garnet            | Greeley, Colo.          |
| Buckmaster, Stella      | Dallas, Texas           |
| Budin, Christena        | Sterling, Colo.         |
| Buis, Lodeman           | Stonington, Ill.        |
| Bulger, Katherine       | Greeley, Colo.          |
| Bull, Ethel J.          | Patches, Colo.          |
| Bundy, Maude S.         | Rock Springs, Wyo.      |
| Bunning, Emma           | Leadville, Colo.        |
| Burbridge, Edgar        | Plattville, Colo.       |
| Burch, Kate             | Beaumont, Texas         |
| Burgess, Bertha E.      | Tonica, Ill.            |
| Burgess, Emma           | Alva, Okla.             |
| Burgess, Frances        | Julesburg, Colo.        |
| Burke, Alice            | Rocky Ford, Colo.       |
| Burke, Irene            | Stonington, Ill.        |
| Burkman, Clara J.       | Junction City, Kan.     |
| Burrows, Josephine      | Greeley, Colo.          |
| Burton, Ada L.          | Canon City, Colo.       |
| Bush, Florence M.       | Salida, Colo.           |
| Bush, Pauline           | Durango, Colo.          |
| Bushy, Clifford A.      | Manzanola, Colo.        |
| Bushy, Lulu V.          | Ordway, Colo.           |
| Buesch, Margaret        | Denver, Colo.           |
| Bushey, A. H.           | Manzanola, Colo.        |
| Bus, Ida H.             | Boelus, Neb.            |
| Butler, Marian          | Sugar City, Colo.       |
|                         |                         |
| Cage, Mary L.           | Greeley, Colo.          |
| Caldwell, Katherine     | Grandfield, Okla.       |
| Caldwell, May Belle     | La Grande, Ore.         |
| Calkins, May            | Muskogee, Okla.         |
| Callahan, Evelyn        | Towaoc, Colo.           |
| Callis, Dorothy         | Denver, Colo.           |
| Camden, Mrs. Cynthia    | Plattville, Colo.       |
| Campbell, Cleste        | Miami, Okla.            |
| Campbell, Clare         | Sterling, Colo.         |
| Campbell, Della         | Colorado Springs, Colo. |
| Campbell, Helen         | Pueblo, Colo.           |
| Campbell, J. M.         | Wellington, Colo.       |
| Campbell, Sadie         | Rocky Ford, Colo.       |
| Cannell, Mona           | Colorado Springs, Colo. |
| Cannon, Brenda W.       | Denver, Colo.           |
| Carey, Elma             | Omaha, Neb.             |
| Carey, Lucy L.          | Forbes, Colo.           |
| Carlson, Annie J.       | Independence, Colo.     |
| Carlson, Eva            | Independence, Colo.     |

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| Carpenter, Michaela    | Greeley, Colo.          |
| Carpenter, Ruth        | Atlantic City, Mo.      |
| Carr, Etta M.          | Fowler, Colo.           |
| Carr, Ruth             | Denver, Colo.           |
| Carrell, Mary I.       | Plattville, Colo.       |
| Carrington, Dimple     | Denver, Colo.           |
| Carrington, Myrtle     | La Junta, Colo.         |
| Carroll, Evelyn A.     | Arvada, Colo.           |
| Carter, Albert S.      | Greeley, Colo.          |
| Carter, Verna          | Arapahoe, Neb.          |
| Carver, Elizabeth      | Lamar, Colo.            |
| Carveth, Bertha        | Louisville, Colo.       |
| Case, Bertha           | Silverton, Colo.        |
| Case, Ida May          | Lamoni, Iowa            |
| Case, Ruby             | Ordway, Colo.           |
| Case, Thora            | Fort Morgan, Colo.      |
| Casey, Mary L.         | Butte, Mont.            |
| Casey, Zita            | Butte, Mont.            |
| Cavazos, Eloise R.     | Brownsville, Texas      |
| Ceruth, Helen          | Rockdale, Colo.         |
| Chidester, Fern        | Mitchell, Neb.          |
| Christensen, Grace     | Kiowa, Colo.            |
| Christian-on, Lenoir   | Holdrege, Neb.          |
| Chamberlin, Frances    | Bisbee, Ariz.           |
| Chambers, Elna         | St. Joseph, Mo.         |
| Chambers, May M.       | Las Animas, Colo.       |
| Chambers, Wilbur       | Las Animas, Colo.       |
| Champion, Edith        | Denver, Colo.           |
| Champlain, Lucy        | Greeley, Colo.          |
| Champlain Lura         | Greeley, Colo.          |
| Chandler, Charles      | Burley, Idaho           |
| Chapp, Evelyn          | Greeley, Colo.          |
| Charlesworth, H. W.    | Erie, Colo.             |
| Cherry, Jessie P.      | Greeley, Colo.          |
| Christopher, Ruth      | Holly, Colo.            |
| Chase, Elizabeth       | Denver, Colo.           |
| Chase, Lucille B.      | Denver, Colo.           |
| Chisolm, Edith         | Aspen, Colo.            |
| Clark, Lola D.         | Tilden, Neb.            |
| Clark, Myra L.         | Greeley, Colo.          |
| Clark, Pinkie          | Dallas, Texas           |
| Clary, J.              | Colorado Springs, Colo. |
| Clay, Lota             | Sugar City, Colo.       |
| Clearwater, Rachel     | Brownsville, Texas      |
| Clearwater, Mrs. T. H. | Brownsville, Texas      |
| Cleeton, Vivian        | Fowler, Colo.           |
| Cleave, Helen          | Denver, Colo.           |
| Cleghorn, Doris        | Greeley, Colo.          |
| Clements, Marcella     | Lawton, Okla.           |
| Clements, Gladys       | Grandfield, Okla.       |
| Cleveland, Mae         | Santa Monica, Calif.    |
| Clouse, Grace          | Dallas, Texas           |
| Cline, F. J.           | Greeley, Colo.          |
| Clinger, Gladys        | Ordway, Colo.           |
| Clinkenbrand, Vera V.  | Alva, Okla.             |
| Clouse, Helen          | Fort Collins, Colo.     |
| Clover Beulah          | Dallas, Texas           |
| Coates, Susie M.       | Denver, Colo.           |
| Coatney, Grace         | Pueblo, Colo.           |
| Cochran, Grace         | Greeley, Colo.          |
| Cochran Mabel          | Greeley, Colo.          |
| Cochrill, Lowell       | Wilton, Iowa            |
| Cohen, Lillian         | Guffey, Colo.           |
| Cole, Frances          | Eckley, Colo.           |
| Cole, Ruth L.          | Julesburg, Colo.        |
| Coleman, Rose F.       | Omaha, Neb.             |
| Colegate, Mrs. Mary    | Greeley, Colo.          |
| Cologne, Rose          | Rockvale, Colo.         |
| Colwell, Ruth E.       | Loveland, Colo.         |
| Colyer, Lola N.        | Ordway, Colo.           |
| Compton, Mary          | San Acacio, Colo.       |
| Cone, Rebecca Maude    | Cincinnati, Ohio        |
| Condon, Maude          | Plattville, Colo.       |
| Coney, Clara J.        | Denver, Colo.           |
| Cook, Gladys           | Syracuse, Kan.          |
| Cook, Lois             | Lamar, Colo.            |
| Cook, Mary F.          | Marianna, Ark.          |
| Cook, Stella M.        | Rockford, Ill.          |
| Coombs, Alice Lillian  | Greeley, Colo.          |
| Cooper, Ida L.         | Wellington, Colo.       |
| Cooper, Lena           | Lamar, Colo.            |
| Cornish, Lydia         | Denver, Colo.           |
| Cornick, Anna L.       | Anthony, Kan.           |
| Cornwell, Hope         | Monte Vista, Colo.      |
| Cornwell, W. F.        | Monte Vista, Colo.      |

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|--------------------------------|-------------------------|
| Cory, Eunice .....             | Tulsa, Okla.            |
| Coston, Etta .....             | Mancos, Colo.           |
| Couch, Nell .....              | Wheralia, Ark.          |
| Coulson, Clara .....           | Boulder, Colo.          |
| Coulter, Mrs. Nettie .....     | Oak Creek, Colo.        |
| Countryman, Estella .....      | Sterling, Colo.         |
| Countryman, Mary .....         | Sterling, Colo.         |
| Cowling, Anna A. ....          | Leavenworth, Kan.       |
| Cowling, Mary L. ....          | Leavenworth, Kan.       |
| Cox, Emma G. ....              | Flagler, Colo.          |
| Cox, Ora .....                 | Bushnell, Ill.          |
| Cox, Margaret R. ....          | Colorado Springs, Colo. |
| Coykendall, Mrs. Fannie .....  | Denver, Colo.           |
| Crabill, Ethel .....           | Cheney Center, Colo.    |
| Craig, Edna M. ....            | Denver, Colo.           |
| Craig, Maud L. ....            | Denver, Colo.           |
| Craig, May L. ....             | Greeley, Colo.          |
| Cramer, Caryl .....            | Loveland, Colo.         |
| Cramer, Louise .....           | Wray, Colo.             |
| Crawford, Ethel .....          | St. Joseph, Mo.         |
| Crawford, Ethel .....          | Greeley, Colo.          |
| Crawford, Ethel Dee .....      | Denver, Colo.           |
| Crawford, Mercedes .....       | Onawa, Iowa             |
| Crawford, Pearl .....          | Wagoner, Okla.          |
| Craze, Hyacinth .....          | Greeley, Colo.          |
| Creech, Lawrence .....         | Alva, Okla.             |
| Creese, Ethyl .....            | Longmont, Colo.         |
| Cresto, Louise .....           | Rockvale, Colo.         |
| Cresto, Theresa .....          | Rockvale, Colo.         |
| Crist, Nova .....              | Hatton, Kan.            |
| Cronin, Sister Sebastian ..... | Canon City, Colo.       |
| Cross, Carrie .....            | Harrisburg, Neb.        |
| Cross, Lydia .....             | Harrisburg, Neb.        |
| Cully, Inez .....              | Seymour, Mo.            |
| Cummings, Catherine .....      | Pueblo, Colo.           |
| Cunningham, Isabel .....       | Wendover, Wyo.          |
| Cummings, Madge .....          | Wichita Falls, Texas    |
| Curd, William S. ....          | Hallis, Okla.           |
| Currie, Elizabeth .....        | Erie, Kan.              |
| Cusie, Etta M. ....            | Denver, Colo.           |

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|----------------------------|-------------------------|
| Daily, Grace .....         | Denver, Colo.           |
| Dalby, Hazel .....         | Jewell, Iowa            |
| Dalby, Cora N. ....        | Atlanta, Ga.            |
| Dalby, Muriel .....        | Ordway, Colo.           |
| Dalgarn, Margaret .....    | Meade, Kan.             |
| Dalziel, Elizabeth .....   | Brush, Colo.            |
| Damm, Hattie .....         | Fort Morgan, Colo.      |
| Davis, Bertha .....        | Oklahoma City, Okla.    |
| Daise, Blanche .....       | Graham, Mo.             |
| Davis, Gilbert W. ....     | Kansas City, Mo.        |
| Davis, Ila .....           | Newata, Okla.           |
| Davis, Mamie .....         | Fort Worth, Texas       |
| Davis, Margaret .....      | Longmont, Colo.         |
| Davison, Marie .....       | Denver, Colo.           |
| Davis, Mary .....          | Taylor, Texas           |
| Davis, Rhoda .....         | Hannibal, Mo.           |
| Davis, Robert Y. ....      | Greeley, Colo.          |
| Davis, Rosana .....        | Longmont, Colo.         |
| Davis, Virgaline .....     | Benton, Kan.            |
| Davison, Pearl .....       | Rouse, Colo.            |
| Dawson, Floy .....         | Oklahoma City, Okla.    |
| Dawson, J. G. ....         | Weldona, Colo.          |
| Day, J. A. ....            | Gould, Okla.            |
| Day, La Cree .....         | Gould, Okla.            |
| DeArnold, Mrs. Olive ..... | Topeka, Kan.            |
| Dedman, C. V. ....         | Colorado Springs, Colo. |
| De Kraay, Etta .....       | Aberdeen, S. Dak.       |
| Desmond, Laura .....       | Council Bluffs, Iowa    |
| Denning, Nola .....        | Manzanola, Colo.        |
| Denning, Jessie .....      | Manzanola, Colo.        |
| Dennis, Clara M. ....      | Pueblo, Colo.           |
| Dennis, C. V. ....         | Independence, Kan.      |
| Denter, Ella .....         | Monte Vista, Colo.      |
| Derby, Isabel .....        | Lincoln, Neb.           |
| DeWright, Ruth J. ....     | Grand Rapids, Mich.     |
| Devine, Isabell .....      | Divide, Colo.           |
| Dickey, Anna E. ....       | Greelev, Colo.          |
| Dickey, Florence .....     | Haxtun, Colo.           |
| Dickens, Mrs. May .....    | Brownsville, Texas      |
| Dickerson, Elizabeth ..... | Evans, Colo.            |
| Dickinson, Amy Z. ....     | Sterling, Colo.         |
| Dickman, Hannah .....      | Pawnee, Colo.           |
| Diesner, Nora .....        | Spalding, Neb.          |
| Diggs, Charles A. ....     | Ainsworth, Neb.         |



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| Dillon, Bertha .....         | Greeley, Colo.          |
| Dillon, Mary V. ....         | Greeley, Colo.          |
| Dillon, Mamie .....          | Sioux City, Iowa        |
| Dinscombe, Naomi .....       | Pueblo, Colo.           |
| Dismukes, Cleo .....         | Elmer, Okla.            |
| Doan, Winifred M. ....       | Denver, Colo.           |
| Doland, Florence A. ....     | Denver, Colo.           |
| Donohue, Mary M. ....        | Pueblo, Colo.           |
| Doolye, Jo ephine .....      | Lamar, Colo.            |
| Doonan, Eva .....            | Arvada, Colo.           |
| Dorn, Flora .....            | East St. Louis, Ill.    |
| Dotter, Gladys E. ....       | Eagle City, Okla.       |
| Dougherty, Linnie .....      | Sapulpa, Okla.          |
| Douglas, Mrs. H. S. ....     | Denver, Colo.           |
| Douglas, Sherman .....       | Akron, Colo.            |
| Doyle, Eva .....             | Eads, Colo.             |
| Duboff, Anna .....           | Denver, Colo.           |
| Duboff, Benjamin .....       | Denver, Colo.           |
| Duboff, Mariam .....         | Englewood, Colo.        |
| Duboff, Sarah B. ....        | Denver, Colo.           |
| Dubois, Alice E. ....        | Fort Morgan, Colo.      |
| Duck, Mae M. ....            | Walsenburg, Colo.       |
| Dugan, Mrs. Ethel .....      | Louvers, Colo.          |
| Duggleby, Hattie .....       | Greeley, Colo.          |
| Duncan, Carl G. ....         | Enon Valley, Pa.        |
| Duncan, Katheryn .....       | Denve · Colo.           |
| Dunn, Cascadia .....         | Brighton, Colo.         |
| Dunn, Sister Mary .....      | Pueblo, Colo.           |
| Dunnigan, Katherine .....    | Omaha, Neb.             |
| Dunning, Mrs. Incie .....    | Alliance, Neb.          |
| Durie, Helen .....           | Ardmore, Okla.          |
| Dutcher, Emma .....          | Guthrie, Okla.          |
| Dyer, Seeley Josephine ..... | Boulder, Colo.          |
|                              |                         |
| Eagan, Ruth K. ....          | Denver, Colo.           |
| East, Mrs. Margaret .....    | Jet, Okla.              |
| Eaton, Mrs. J. H. ....       | Greeley, Colo.          |
| Ecker, Ole .....             | Colorado Springs, Colo. |
| Eckles, Mrs. Haleyon .....   | Greeley, Colo.          |
| Edward, Libbie .....         | Salt Lake City, Utah    |
| Edwards, Castle .....        | Louisville, Colo.       |
| Edwards, Mrs. David .....    | Greeley, Colo.          |
| Edwards, Hamp S. ....        | Durant, Okla.           |
| Edwards, Maida .....         | Denton, Texas           |
| Edwards, Ruth .....          | Greeley, Colo.          |
| Edwin, Joseph M. ....        | Denver, Colo.           |
| Edison, Irma C. ....         | Lafayette, Colo.        |
| Ehrit, Flora .....           | Denver, Colo.           |
| Eickhorn, Phenaa .....       | Indiana, Pa.            |
| Elder, Edna E. ....          | Indiana, Pa.            |
| Elder, Mary M. ....          | St. Jo eph, Mo.         |
| Elder, Media .....           | Quincy, Ill.            |
| Eldridge, Jessie A. ....     | Florence, Colo.         |
| Elkins, DyVena .....         | Bon Carbo, Colo.        |
| Ellis, Bethel M. ....        | Castle Rock, Colo.      |
| Ellis, English .....         | Denver, Colo.           |
| Ellis, Kitty .....           | Meade, Kan.             |
| Ellis, Sadie .....           | Dallas, Texas           |
| Ellis, Tassie .....          | Dallas, Texas           |
| Ellott, Mina .....           | Omaha, Neb.             |
| Elrod, Mrs. Clara .....      | Branson, Colo.          |
| Embree, Margaret .....       | Henrietta, Okla.        |
| Emers, Laura .....           | Raven, Colo.            |
| Emers, Nellie A. ....        | Raven, Colo.            |
| Epler, Howard B. ....        | Greeley, Colo.          |
| Eppich, Eudora .....         | Denver, Colo.           |
| Erwin, Beul h .....          | Maxahachie, Texas       |
| Evetts, Annie .....          | Coleman, Texas          |
| Erickson, Agnes .....        | Ouray, Colo.            |
| Estep, Lucille .....         | Trinidad, Colo.         |
| Ethridge, Grace .....        | Tipton, Okla.           |
| Evans, Anna .....            | Dallas, Texas           |
| Evans, Beatrice .....        | Denver, Colo.           |
| Evans, Eliza .....           | Pueblo, Colo.           |
| Evans, Frances .....         | Stoughton, Wis.         |
| Eunes, Harold .....          | Greeley, Colo.          |
| Evans, Hattie .....          | Colorado Springs, Colo. |
| Evans, Laurine .....         | Norton, Kan.            |
| Evans, Mrs. Madge .....      | Denver, Colo.           |
| Elliott, Eula .....          | Alma, Neb.              |
|                              |                         |
| Fairchild, Ethel M. ....     | Clarence, Okla.         |
| Falkenstein, Elizabeth ..... | Pueblo, Colo.           |
| Fallis, Edwina .....         | Denver, Colo.           |

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|------------------------------|-------------------------|
| Fallon, Mrs. Florence        | Cincinnati, Ohio        |
| Fanning, Francis             | Hudson, Colo.           |
| Farney, Christine            | Karvel, Colo.           |
| Farquhar, Lula               | Flagler, Colo.          |
| Farquhar, Marie              | Flagler, Colo.          |
| Farr, Ruth                   | Greeley, Colo.          |
| Farrell, Frances             | Aurora, Neb.            |
| Faus, Ada R.                 | Monte Vista, Colo.      |
| Fellowes, Florence           | Winona, Minn.           |
| Fenner, Bertha               | Jewell, Kan.            |
| Fenner, Myrlie               | Jewell, Kan.            |
| Fenton, Constance            | Boulder, Colo.          |
| Ferree, Ruby                 | Sugar City, Colo.       |
| Ferguson, Mabel              | Beuld, Ill.             |
| French, Bessie N.            | Great Bend, Kan.        |
| Field, Louise A.             | Colorado Springs, Colo. |
| Filbin, Addie M.             | Louisville, Ky.         |
| Filer, Constance             | Morrison, S. Dak.       |
| Filetner, Geraldine          | Greybull, Wyo.          |
| Filker, W. F.                | Monument, Colo.         |
| Finch, Caroline A.           | Colorado Springs, Colo. |
| Fisher, Laura E.             | Denver, Colo.           |
| Fitzmorres, Arthur           | Greeley, Colo.          |
| Fitzmorres, Mrs. A. E.       | Greeley, Colo.          |
| Fitzmorres, Roy S.           | Laporte, Colo.          |
| Fitz Simonds, Sister Bernard | Denver, Colo.           |
| Flath, Lucy M.               | Denver, Colo.           |
| Flood, Helen                 | Greeley, Colo.          |
| Floyd, Katherine A.          | Denver, Colo.           |
| Floyd, M. R.                 | Vinta, Okla.            |
| Flynn, Ellen                 | Trinidad, Colo.         |
| Flynn, Emma                  | Trinidad, Colo.         |
| Flynn, Josephine             | Trinidad, Colo.         |
| Flynt, Jessie S.             | Omaha, Neb.             |
| Flynt, Mary D.               | Omaha, Neb.             |
| Fogg, Ella                   | Cordue, Okla.           |
| Foley, Mrs. Ella             | Greeley, Colo.          |
| Force, Anna L.               | Denver, Colo.           |
| Force, Jessie                | Denver, Colo.           |
| Ford, Bessie                 | Frankford, Mo.          |
| Ford, Elsie                  | Frankford, Mo.          |
| Foresman, Grace              | Canon City, Colo.       |
| Forest, Eva L.               | Eagle, Colo.            |
| Forster, Gladys              | Greeley, Colo.          |
| Forester, Ida May            | Greeley, Colo.          |
| Fortune, Ruby                | Keota, Colo.            |
| Forster, Mrs. A. H.          | Kansas City, Mo.        |
| Foster, C. A.                | Las Animas, Colo.       |
| Fowler, Florence             | Denver, Colo.           |
| Fox, Margaret                | Willis, Teaxs           |
| Franzel, Erna                | Beuna Vista, Colo.      |
| Frakes, O. E.                | Greeley, Colo.          |
| Fraser, Mabel J.             | Akron, Colo.            |
| Frazier, Belle               | Washington, Ark.        |
| Fraser, Mildred              | Golden, Colo.           |
| Frazier, Rowena A.           | Greeley, Colo.          |
| Frazy, Irma                  | Walsenburg, Colo.       |
| Frederickson, Otto           | Allen, Kan.             |
| Fremgen, Bertha              | Karvel, Colo.           |
| Fremgen, Minnie              | Karvel, Colo.           |
| Frey, Dora M.                | Beaumont, Texas         |
| Frink, Edith                 | Hayden, Colo.           |
| Frinke, Anna A.              | Quincy, Ill.            |
| Frisbey, Helen               | Trinidad, Colo.         |
| Frisbey, Mabel               | Trinidad, Colo.         |
| Frischke, Helen              | Columbus, Mont.         |
| Frye, Annie B.               | Windsor, Colo.          |
| Frye, Cora P.                | Roggen, Colo.           |
| Fryklund, V. C.              | Greeley, Colo.          |
| Fulton, Florence             | Denver, Colo.           |
| Fuller, Genevieve            | La Junta, Colo.         |
| Funk, Mrs. Helen             | Greeley, Colo.          |
| Gabriel, Maude               | Loveland, Colo.         |
| Gage, Ethel M.               | Riverside, Calif.       |
| Gallagher, Florence          | Fort Collins, Colo.     |
| Galliers, Laura              | Kansas City, Mo.        |
| Galt, Ruth                   | Hale Center, Texas      |
| Ganzer, Katherine M.         | Kansas City, Mo.        |
| Gardiner, Ana L.             | Colorado Springs, Colo. |
| Gardiner, Katheryn           | Colorado Springs, Colo. |
| Gardner, Lillian             | Silverton, Colo.        |
| Gardiner, Mary Ellen         | Colorado Springs, Colo. |
| Gardner, Mrs. Nellie         | Denver, Colo.           |

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| Garnett, Ora W.      | Pierce, Colo.           |
| Garney, Ruth         | Gainesville, Texas      |
| Garrison, Elizabeth  | Denver, Colo.           |
| Garrison, Marie      | Vinita, Okla.           |
| Gates, Mary          | Greenburg, Kan.         |
| Gaymann, Harriet     | Colorado Springs, Colo. |
| Gedney, Beatrice     | Denver, Colo.           |
| Geiser, Bernard      | Monte Vista, Colo.      |
| Gentry, Marg         | San Diego, Calif.       |
| Gentry, Mrs. R. E.   | Fort Worth, Texas       |
| Gerver, Sister Anna  | Fort Worth, Texas       |
| Geyer, Rose M.       | Graham, Mo.             |
| Gibbs, Elizabeth     | Canon City, Colo.       |
| Gibson, Nina         | Greeley, Colo.          |
| Giesiking, Edna M.   | Altamont, Ill.          |
| Giesiking, Ruth      | Fleming, Colo.          |
| Gilbert, Faith E.    | Wiley, Colo.            |
| Gilbert, Grace       | Wiley, Colo.            |
| Gilchrist, John      | Colorado Springs, Colo. |
| Gilchrist, Mrs. John | Colorado Springs, Colo. |
| Gigax, Agnes         | Grand Junction, Colo.   |
| Gigax, Minnie        | Grand Junction, Colo.   |
| Gill, Vibian         | Atwood, Colo.           |
| Gillian, Leta        | Boulder, Colo.          |
| Gillis, Mary E.      | Denver, Colo.           |
| Gilmore, Angela      | Denver, Colo.           |
| Gilmore, Gladys      | Denver, Colo.           |
| Giltner, Ada         | Penalosa, Kan.          |
| Giltner, Cora        | Lamar, Colo.            |
| Gish, Oalathe        | Eads, Colo.             |
| Glass, Gladys        | La Junta, Colo.         |
| Glasgow, Mattie      | Leavenworth, Kan.       |
| Glaze, Caroline E.   | Denver, Colo.           |
| Gleason, Belle       | Greeley, Colo.          |
| Godbey, Norma I.     | Mitchell, Neb.          |
| Goebel, Jessie F.    | Denver, Colo.           |
| Gonackey, Helen      | Pittsburgh, Kan.        |
| Goodman, Hazel       | Arvada, Colo.           |
| Goodman, K. C.       | Coston, Ky.             |
| Goodman, Lena Thomas | Greeley, Colo.          |
| Goodkins, Mrs. Clara | Denver, Colo.           |
| Goodpasture, Lola    | Trinidad, Colo.         |
| Gordon, Grace        | Pueblo, Colo.           |
| Gorman, N. V.        | Golden, Colo.           |
| Grady, Margaret      | Dallas, Texas           |
| Graham, Alpha        | Vinita, Okla.           |
| Graham, Bertha M.    | Dalhart, Texas          |
| Graves, Cora E.      | Raymond, Neb.           |
| Graves, Deva         | Raymond, Neb.           |
| Graves, Mrs. H. D.   | Tulsa, Okla.            |
| Graves, Lucille N.   | Belvidere, Ill.         |
| Gray, Montello       | Greeley, Colo.          |
| Greek, Blanche M.    | Greeley, Colo.          |
| Green, Mrs. Anna     | Greeley, Colo.          |
| Green, H. E.         | Breckenridge, Colo.     |
| Greer, Virgie        | Beaumont, Texas         |
| Green, Mildred L.    | Haxtun, Colo.           |
| Grener, Mina         | Ordway, Colo.           |
| Griffith, Fern       | Greeley, Colo.          |
| Greenayre, Katherine | Greeley, Colo.          |
| Griffith, Lois F.    | Greeley, Colo.          |
| Griffith, Lucille    | La Junta, Colo.         |
| Griffith, Lucy       | Arvada, Colo.           |
| Griffith, Mrs. May   | Timnath, Colo.          |
| Grossman, Bertha     | Denver, Colo.           |
| Gourtner, Mrs. Ethel | Denver, Colo.           |
| Guard, Helen B.      | Denver, Colo.           |
| Guilbert, Romula J.  | Albion, Neb.            |
| Gygax, Esther        | Osborne, Kan.           |
| Hadley, Herbert      | Greeley, Colo.          |
| Hahn, Effie          | Wray, Colo.             |
| Hailey, J. R.        | Webster Grove, Mo.      |
| Haldean, Constance   | Denver, Colo.           |
| Hall, Carrie         | Pierce, Neb.            |
| Hall, Elberta        | Fort Collins, Colo.     |
| Hall, Mrs. Grace B.  | Denver, Colo.           |
| Hall, Grace E.       | Pender, Neb.            |
| Hall, Lucille        | Flagler, Colo.          |
| Hall, Luella A.      | Colorado Springs, Colo. |
| Hall, Merle          | Woodburn, Ore.          |
| Hallahan, Josephine  | Colorado Springs, Colo. |
| Hallahan, May        | Fort Worth, Texas       |

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|------------------------|-------------------------|
| Hallet, Hazel          | Oak Creek, Colo.        |
| Hallett, Louise W.     | Kline, Colo.            |
| Hampton, Mrs. May      | Greeley, Colo.          |
| Hancock, Ethel E.      | Littleton, Colo.        |
| Hanerty, Dorothy L.    | Pueblo, Colo.           |
| Hansen, Clara          | Manitou, Colo.          |
| Hansen, Loraine        | Stratton, Colo.         |
| Hansford, Maude        | Waterford, Colo.        |
| Hanson, Mary J.        | Matheson, Colo.         |
| Hanson, Viola          | Arvada, Colo.           |
| Harbert, Lily E.       | Brush, Colo.            |
| Hardy, Joe E.          | Tioga, Texas            |
| Hansen, Thea           | North Platte, Neb.      |
| Harlin, Resinell       | Purcell, Colo.          |
| Harman, Claude N.      | Kansas City, Mo.        |
| Harmsworth, Carrie     | Las Animas, Colo.       |
| Harper, Charles Ray    | Greeley, Colo.          |
| Harper, J. D.          | Greeley, Colo.          |
| Harper, Meryl J.       | Greeley, Colo.          |
| Harris, Annabel L.     | Alva, Okla.             |
| Harris, Blanche        | Colorado Springs, Colo. |
| Harrison, Clara A.     | Checotah, Okla.         |
| Harrison, Sarah L.     | Pueblo, Colo.           |
| Hart, Helen            | Sumnerfield, Kan.       |
| Hartford, Etta         | Hutchinson, Kan.        |
| Hartford, May          | Reno, Kan.              |
| Harteson, Lulu M.      | Creton, Iowa            |
| Harvey, Fred           | Colorado Springs, Colo. |
| Harvey, Nelle D.       | Fort Worth, Texas       |
| Hasaak, Ida R.         | Topeka, Kan.            |
| Haslip, Eva M.         | Hillrose, Colo.         |
| Hastings, Blanche      | Longmont, Colo.         |
| Hauck, Evangeline      | Rocky Ford, Colo.       |
| Haucken, Fay           | Aegonia, Kan.           |
| Haverty, Estelle       | Pueblo, Colo.           |
| Haworth, Mary L.       | Keota, Colo.            |
| Haworth, Nelle         | Pueblo, Colo.           |
| Hawthorne, Ruth        | Fort Morgan, Colo.      |
| Hay, George A. F.      | Junction City, Colo.    |
| Hayes, Dorothy W.      | Windsor, Colo.          |
| Hayton, Mrs. Kate      | Pueblo, Colo.           |
| Hazlett, Dorothy       | Pueblo, Colo.           |
| Head, Pearl            | Trinidad, Colo.         |
| Heabler, Grace         | Denver, Colo.           |
| Heath, Helen           | Denver, Colo.           |
| Heaton, Mrs. Verna     | Canon, Colo.            |
| Hecker, Izora          | Byron, Okla.            |
| Hedden, Miranda        | Scott City, Kan.        |
| Hedges, Cecelia M.     | Denver, Colo.           |
| Helmo, Mabel           | Weldona, Colo.          |
| Hemphill, F. C.        | Greeley, Colo.          |
| Hempler, Irene         | Metropolis, Ill.        |
| Henderson, Dorthy      | Denver, Colo.           |
| Henderson, Margaret    | Denver, Colo.           |
| Hermann, Lewis S.      | Denver, Colo.           |
| Herndon, Marie         | Deara, Colo.            |
| Hetrick, Flora L.      | Kit Carson, Colo.       |
| Hestward, Erma         | Ouray, Colo.            |
| Hewes, Mildred J.      | Lamar, Colo.            |
| Hewitt, Muriel         | Fort Collins, Colo.     |
| Hiatt, Eva             | Julesburg, Colo.        |
| Hicks, Alice R.        | Moorehead, Minn.        |
| Hicks, Mattie C.       | Crowley, Colo.          |
| Hicks, Myrtle M.       | Omaha, Neb.             |
| Higgaon, Genevieve     | Cope, Colo.             |
| Higginbottom, Minnie   | Ordway, Colo.           |
| Higgins, Ada           | Rocky Ford, Colo.       |
| Hildegrade, Sister     | Pueblo, Colo.           |
| Hilisinger, Esther M.  | Norton, Kan.            |
| Hinds, Archie          | Sedgwick, Colo.         |
| Hinds, Dennie          | Hulbert, Okla.          |
| Hoag, Pearl A.         | Seneca, Ill.            |
| Hobson, Edith E.       | Denver, Colo.           |
| Hobson, Janet          | Denver, Colo.           |
| Hogue, Jaunita S.      | Paris, Texas            |
| Holick, Marguerite     | Greeley, Colo.          |
| Hollerin, Susan Dotson | Ludlow, Colo.           |
| Holloway, Esther       | Washington, Kan.        |
| Holman, Vera           | Manassa, Colo.          |
| Homes, Catherine       | Denver, Colo.           |
| Holmes, Ella           | Arvada, Colo.           |
| Holmes, Ethel E.       | Denver, Colo.           |
| Hook, George E.        | Denver, Colo.           |
| Hopkins, Helen         | Greeley, Colo.          |

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| Hopkins, Mildred      | Greeley, Colo.          |
| Horn, Clara           | Akron, Colo.            |
| Horne, Irene          | Sterling, Colo.         |
| Horne, Viola          | Manning, Iowa           |
| Houghton, Reid        | Cheraw, Colo.           |
| Hourihan, Nellie      | Denver, Colo.           |
| Houser, George H.     | Aurora, Neb.            |
| Houston, Clifford     | Sugar City, Colo.       |
| Howard, Lavinia       | Colorado Springs, Colo. |
| Howard, Marjorie      | Wheatridge, Colo.       |
| Howard, Martha B.     | Taos, N. M.             |
| Howard, Dorothy       | Wheatridge, Colo.       |
| Howes, Catherine      | Denver, Colo.           |
| Hubbard, Fern         | Hutchinson, Kan.        |
| Hudgel, Hessie E.     | Sloan, Iowa             |
| Hudson, Edna          | Fort Worth, Texas       |
| Huff, Nellie          | Akron, Colo.            |
| Hughton, Carrie       | Plano, Texas            |
| Hume, Lenora A.       | Wellington, Kan.        |
| Humekhou e, Ray       | Akron, Colo.            |
| Humphrey, Ethlyn      | Denver, Colo.           |
| Huntington, Alice     | Denver, Colo.           |
| Hunton, Sarah         | Colorado Springs, Colo. |
| Hummer, Ruth E.       | Denver, Colo.           |
| Hunt, Adeline         | Boulder, Colo.          |
| Hunter, Sarah         | Manzanola, Colo.        |
| Hupp, Carl C.         | Trinidad, Colo.         |
| Hupp, June R.         | Trinidad, Colo.         |
| Huscher, Marion M.    | Kansas City, Mo.        |
| Hutchendorf, Ruth     | Brookings, S. D.        |
| Hutchinson, Mina      | Geneseo, Ill.           |
| Ingersoll, Edna       | Delta, Colo.            |
| Inbotti, Minnie       | Carson City, Colo.      |
| Ingle, Irl B.         | Greeley, Colo.          |
| Ingram, Genevieve     | Olney Springs, Colo.    |
| Jacobs, Gertrude      | Trinidad, Colo.         |
| Jacobson, Madeline    | Sioux Rapids, Iowa      |
| Jacobson, Mrs. Ruth   | Quincy, Ill.            |
| James, Leota          | Greeley, Colo.          |
| Jamison, Margaret     | Denver, Colo.           |
| Jandas, Charles       | Kanapolis, Kan.         |
| Jenkins, Agnes        | Arvada, Colo.           |
| Jewett, Mrs. Daisy    | Pontiac, Mich.          |
| Jones, Bea            | Denver, Colo.           |
| Jones, Bertha D.      | Fort Worth, Texas       |
| Jones, Bertha         | Brush, Colo.            |
| Jones, Brilla         | Denver, Colo.           |
| Jones, Bertha         | Fort Worth, Texas       |
| Jones, Carl           | Greeley, Colo.          |
| Jones, Esther         | Denver, Colo.           |
| Jones, Gladys M.      | Rocky Ford, Colo.       |
| Jones, W. R.          | Eads, Colo.             |
| Jones, Mildred        | Idaho Springs, Colo.    |
| Johnston, Amy         | New Raymer, Colo.       |
| Johnson, Anna         | Denver, Colo.           |
| Johnson, Anna A.      | Louisville, Colo.       |
| Johnson, Bernice      | Denver, Colo.           |
| Johnson, Christine L. | Rocky Ford, Colo.       |
| Johnson, Elsa         | Perrose, Colo.          |
| Johnson, Esther       | Greeley, Colo.          |
| Johnson, Erma         | Fort Lupton, Colo.      |
| Johnson, Everet       | Checotah, Okla.         |
| Johnson, Hazel A.     | Fremont, Neb.           |
| Johnston, Helen       | Fort Morgan, Colo.      |
| Johnson, Mrs. Mae     | Golden, Colo.           |
| Johnson, Marie        | Neuman Grove, Neb.      |
| Johnson, Mary         | New Raymer, Colo.       |
| Johnson, Ruth B.      | Greeley, Colo.          |
| Johnson, Mrs. Nellie  | Colorado Springs, Colo. |
| Johnson, Mrs. Ruth    | Manzanola, Colo.        |
| Johnson, Samuel B.    | Greeley, Colo.          |
| Johnson, Thelma       | Mayview, Mo.            |
| Johnson, Thurma       | Fort Morgan, Colo.      |
| Johnston, Wanda       | Denver, Colo.           |
| Joy, Pearl            | Greeley, Colo.          |
| Joyce, Jennie E.      | Central City, Neb.      |
| Juden, Nancy          | Colorado Springs, Colo. |
| Kaenecke, Lora        | Fort Morgan, Colo.      |
| Kane, Claude A.       | Galeton, Colo.          |

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|------------------------------|-------------------------|
| Kane, Margarite .....        | Littleton, Colo.        |
| Kapsa, Josephine .....       | Redig, S. D.            |
| Kapsa, Helen .....           | Redig, S. D.            |
| Karnes, Opal .....           | Panaca City, Okla.      |
| Kauffman, Harriett .....     | Greeley, Colo.          |
| Kauffman, Ruth .....         | La Grange, Ind.         |
| Kavick, Ruby .....           | Fremont, Neb.           |
| Keagy, Helen Louise .....    | Fort Morgan, Colo.      |
| Keena, E. E. ....            | Hugo, Colo.             |
| Kellam, Mary Ana .....       | Hutchinson, Kan.        |
| Keller, Frances C. ....      | Council Bluffs, Iowa    |
| Keller, Florence .....       | Manchester, S. D.       |
| Keller, Ruby B. ....         | Manchester, S. D.       |
| Kellerman, Violetta .....    | Delta, Colo.            |
| Kelliker, Dorothy .....      | Brunswick, Mo.          |
| Kelly, Floyd .....           | Nunn, Colo.             |
| Kelly, Mary L. ....          | Genoa, Colo.            |
| Kemink, Angelina .....       | Nevder, Colo.           |
| Kendel, Josephine .....      | Greeley, Colo.          |
| Kendrick, Ethel .....        | Florence, Colo.         |
| Kenton, Alice .....          | La Jara, Colo.          |
| Kenton, Lois .....           | La Jara, Colo.          |
| Knies, W. L. ....            | Flagler, Colo.          |
| Keogh, Nellie .....          | Area, Ill.              |
| Kennedy, Mrs. Rosa .....     | Lamar, Colo.            |
| Kennedy, Anna .....          | Sulphur Springs, Colo.  |
| Kennedy, Dyer .....          | Colorado Springs, Colo. |
| Kennedy, Florence .....      | Loveland, Colo.         |
| Kennedy, Virgil .....        | Greeley, Colo.          |
| Kenny, Yuma .....            | St. Jo eph, Colo.       |
| Kesner, Edgar .....          | Salida, Colo.           |
| Key, Verdabelle .....        | Trinidad, Colo.         |
| Keyser, Edna .....           | Wil-on, Kan.            |
| Keyser, Helen .....          | Wilson, Kan.            |
| Kidder, Ethel M. ....        | Denver, Colo.           |
| Kier, Mary E. ....           | Fort Morgan, Colo.      |
| Kincaid, Laure .....         | Le Veta, Colo.          |
| Kinkead, Ruby M. ....        | Dallas, Texas           |
| Kinport, Catherine .....     | Denver, Colo.           |
| Kinsey, Flora .....          | Brighton, Colo.         |
| Kirk, John H. ....           | Greeley, Colo.          |
| Kirkley, Bertha .....        | Huntsville, Texas       |
| Kiser, Eula L. ....          | Siloam Springs, Ark.    |
| Kissler, Leola .....         | Denver, Colo.           |
| Kilbrel, Mrs. Pearl .....    | Greeley, Colo.          |
| Kimbley, L. B. ....          | Akron, Colo.            |
| Kinzmann, Glen J. ....       | Weldona, Colo.          |
| Klaus, Hannah .....          | Washington, La.         |
| Klaus, Mariam .....          | Washington, La.         |
| Klee, Eva M. ....            | Denver, Colo.           |
| Klein, Carrie A. ....        | Denver, Colo.           |
| Klein, Everett E. ....       | Greeley, Colo.          |
| Klein, Katherine .....       | La Junta, Colo.         |
| Klein, Margaret .....        | Otis, Colo.             |
| Kline, Anna E. ....          | Denver, Colo.           |
| Kling, Sister Margaret ..... | Pueblo, Colo.           |
| Klinger, Mayetta .....       | Leavenworth, Kan.       |
| Klippel, Amelia .....        | Kansas City, Mo.        |
| Knecht, Amanda .....         | Denver, Colo.           |
| Knies, Mrs. Ruth E. ....     | Flagler, Colo.          |
| Knight, E. J. ....           | Girard, Kan.            |
| Knight, Marian .....         | Denver, Colo.           |
| Knox, Mrs. Myrtle .....      | Tarentum, Pa.           |
| Koogle, Mrs. Rose .....      | Littleton, Colo.        |
| Koyer, David S. ....         | Leadville, Colo.        |
| Koyes, Mrs. Helen .....      | Leadville, Colo.        |
| Kraker, Anna L. ....         | Omaha, Neb.             |
| Krebs, Mary .....            | Omaha, Neb.             |
| Kresky, Hattie .....         | Minneapolis, Minn.      |
| Krum, Millie E. ....         | Keota, Colo.            |
| Krum, Myrtle .....           | Keota, Colo.            |
| Kunkle, Daisy .....          | Omaha, Neb.             |
| Kunna, Sister Anna .....     | Denver, Colo.           |
| Kyle, John E. ....           | Evans, Colo.            |
| Kyler, Lola .....            | Greeley, Colo.          |
| Kyner, Marguerite .....      | Georgetown, Colo.       |
| Labbo, Lillian .....         | Grover, Colo.           |
| Laeffler, Frances .....      | Piqua, Ohio             |
| Lagerquist, Mrs. Anito ..... | Greeley, Colo.          |
| Lahart, Vergil .....         | Sedgwick, Colo.         |
| Lamb, Grace .....            | Larkspur, Colo.         |
| Lamb, Helen .....            | Brighton, Colo.         |

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| Lawrence, Mary E.        | ..... | Forgan, Okla.           |
| Lamb, Josephine          | ..... | Livermore, Colo.        |
| Lance, Alice             | ..... | Greeley, Colo.          |
| Lang, Helen              | ..... | Denver, Colo.           |
| Langford, Nora           | ..... | Fort Worth, Texas       |
| Lapham, Elizabeth        | ..... | Junction City, Kan.     |
| Larsen, Agnes            | ..... | Starkville, Colo.       |
| Larsen, Christine        | ..... | Council Bluffs, Iowa    |
| Last, Charlotte          | ..... | Manitou, Colo.          |
| LaShier, Ethel           | ..... | Rocky Ford, Colo.       |
| Laudahl, Cora            | ..... | Lincoln, Kan.           |
| Laughrey, Lillian        | ..... | Greeley, Colo.          |
| Laurence, Carl E.        | ..... | Greeley, Colo.          |
| Lawless, Tessie          | ..... | St. Francis, Kan.       |
| Lawson, Bertha M.        | ..... | La Junta, Colo.         |
| Lawson, Faith            | ..... | La Junta, Colo.         |
| Leach, Thelma            | ..... | Pueblo, Colo.           |
| Leathen, Grace           | ..... | Grover, Colo.           |
| Leathen, Vivian          | ..... | Grover, Colo.           |
| Lee, Elsie M.            | ..... | Hobart, Okla.           |
| Lee, Lillie              | ..... | Calnan, Colo.           |
| Lee, Teressa             | ..... | Ordway, Colo.           |
| Leeling, Ida M.          | ..... | Denver, Colo.           |
| Legbrand, Dora           | ..... | Fremont, Neb.           |
| Leise, May               | ..... | Brush, Colo.            |
| Le stikow, Lydia M.      | ..... | Renville, Minn.         |
| Leitch, Martha B.        | ..... | Swink, Colo.            |
| Lemley, Iva G.           | ..... | Simla, Colo.            |
| Leonard, Esther J.       | ..... | Lamar, Colo.            |
| Leonard, Sister Rafaella | ..... | Denver, Colo.           |
| Leonard, Mrs. Alma       | ..... | Fort Worth, Texas       |
| Lesser, Inez             | ..... | Chickasha, Okla.        |
| Letta, Katheryn          | ..... | Washington, Iowa        |
| LeVan, Atlanta           | ..... | Littleton, Colo.        |
| Lewis, Elizabeth         | ..... | Denver, Colo.           |
| Lewis, Harriet E.        | ..... | Central City, Colo.     |
| Lewis, Maude             | ..... | Hobart, Okla.           |
| Lewis, Myrtle            | ..... | Greeley, Colo.          |
| Liebold, Elizabeth       | ..... | Colorado Springs, Colo. |
| Lindow, Vesta            | ..... | Miami, Okla.            |
| Lindsey, Pearl           | ..... | Florence, Colo.         |
| Line, Mrs. Eva           | ..... | Arvada, Colo.           |
| Linville, Mrs. Zilla     | ..... | Beaumont, Texas         |
| Lippant, Josie           | ..... | Liberal, Kan.           |
| Lippert, Ruth Ann        | ..... | Denver, Colo.           |
| Litch, Clara R.          | ..... | Sterling, Colo.         |
| Littler, Ray N.          | ..... | Greeley, Colo.          |
| Lobdell, Gertrude F.     | ..... | Albuquerque, N. M.      |
| Lockard, Ethel           | ..... | St. Francis, Kan.       |
| Lockenous, Mary R.       | ..... | Lyons, Colo.            |
| Lofgren, Ruth            | ..... | Durango, Colo.          |
| Logan, Gertrude E.       | ..... | Grover, Colo.           |
| Logan, Helen             | ..... | Canon City, Colo.       |
| Logan, Martha            | ..... | Canon City, Colo.       |
| Lombardi, Loretta        | ..... | Canon City, Colo.       |
| London, Vesta            | ..... | Miami, Okla.            |
| Long, Elizabeth          | ..... | Omaha, Neb.             |
| Looney, Ethel            | ..... | Vinita, Okla.           |
| Lord, Margaret           | ..... | Monmouth, Ill.          |
| Lough, Bernice           | ..... | Hollywood, Kan.         |
| Lougheed, Grace          | ..... | La Veta, Colo.          |
| Loughery, Hazel          | ..... | Trinidad, Colo.         |
| Love, Hattie             | ..... | Dallas, Texas           |
| Lovern, Ruth             | ..... | Pueblo, Colo.           |
| Lowe, Anna F.            | ..... | Denver, Colo.           |
| Lowell, Jean S.          | ..... | Sedalia, Colo.          |
| Lucas, Mida              | ..... | Ashland, Kan.           |
| Lucke, Gladys            | ..... | Haxtun, Colo.           |
| Lucke, Esther            | ..... | Haxtun, Colo.           |
| Lucore, Josephine        | ..... | Flagler, Colo.          |
| Lund, Florence           | ..... | Elizabeth, Colo.        |
| Lundgren, Helen          | ..... | Limon, Colo.            |
| Lyndon, Katherine        | ..... | Fort Collins, Colo.     |
| Lyngar, Marjorie         | ..... | Carthage, Mo.           |
| Lyon, Irma               | ..... | Simpson, Kan.           |
| Lyon, Mabel E.           | ..... | Canon C ty, Colo.       |
| Lytle, Alan              | ..... | Greeley, Colo.          |
| Mackie, Ellen M.         | ..... | Boulder, Colo.          |
| Madge, Rosalie           | ..... | Covington, Ky.          |
| Mackin, Agnes            | ..... | Omaha, Neb.             |
| Medigan, Charlotte       | ..... | Aspen, Colo.            |
| Magill, Alma             | ..... | Arriba, Colo.           |
| Mahan, Thomas J.         | ..... | Leadville, Colo.        |
| Maher, Teresa            | ..... | Deer Trail, Colo.       |

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|---------------------------------|-------------------------|
| Maize, Beatrice .....           | Broadwater, Neb.        |
| Malins, Edith S. ....           | Denver, Colo.           |
| Mall, Teresa .....              | Deer Trail, Colo.       |
| Maize, Beatrice .....           | Broadwater, Neb.        |
| Malins, Edith D. ....           | Denver, Colo.           |
| Mall, Jake .....                | Clay Center, Kan.       |
| Malonee Iva .....               | Denver, Colo.           |
| Mandl, Kay Clara .....          | Leadville, Colo.        |
| Mandl, Marie R. ....            | Littleton, Colo.        |
| Marble, Inez .....              | Monte Vista, Colo.      |
| Marsh, Bertha .....             | Chugwater, Wyo.         |
| Marsh, Irene R. ....            | Berthoud, Colo.         |
| Martin, Mrs. Josie .....        | Fremont, Neb.           |
| Martin, Leona .....             | Greeley, Colo.          |
| Martin, Maude .....             | Greeley, Colo.          |
| Martinez, Raymindo .....        | Gray Creek, Colo.       |
| Martz, A. J. ....               | Byers, Colo.            |
| Mason, Blanche .....            | Greeley, Colo.          |
| Mason, Della B. ....            | Franklin, Neb.          |
| Mason, Lela H. ....             | Greeley, Colo.          |
| Matson, Edna A. ....            | Greeley, Colo.          |
| Matthews, Marjorie .....        | Greeley, Colo.          |
| Matte-on, Mina .....            | Yakaima, Colo.          |
| Maxwell, Mrs. H. D. ....        | Tulsa, Okla.            |
| Myer, Lena .....                | Greeley, Colo.          |
| Mays, Josephine .....           | Brush, Colo.            |
| McAdow, Beryle .....            | Sugar City, Colo.       |
| McAloon, Anna L. ....           | Akron, Colo.            |
| McArthur, Anna .....            | Denver, Colo.           |
| McArthur, Donald R. ....        | Greeley, Colo.          |
| McBreen, Katherine .....        | Minturn, Colo.          |
| McBride, Grace .....            | Denver, Colo.           |
| McCampbell, Marion .....        | Pueblo, Colo.           |
| McCarter, Mrs. Mary .....       | Greeley, Colo.          |
| McCarthy, Edw. F. ....          | Washington, Iowa        |
| McCarty, Josephine .....        | Hannibal, Mo.           |
| McCarty, Margaret .....         | Hannibal, Mo.           |
| McCarthy, Pat .....             | Maxahachie, Texas       |
| McClenahan, Elizabeth .....     | Greeley, Colo.          |
| McChesney, Bessie .....         | ..... catur, Kan.       |
| McClintock, Mildred .....       | Denver, Colo.           |
| McClure, Carolyn E. ....        | Gainesville, Texas      |
| McClure, Ruth .....             | Fowler, Colo.           |
| McCombs, Orlene .....           | Maxahachie, Texas       |
| McCool, Eva .....               | Beatrice, Neb.          |
| McCoy, Darl .....               | Colorado Springs, Colo. |
| McCov, Hazel .....              | Wichita, Kan.           |
| McCullough, W. O. ....          | Denver, Colo.           |
| McGuire, Mary .....             | Glenwood Springs, Colo. |
| McDonald, Margaret .....        | Aurora, Colo.           |
| McDonald, Mura M. ....          | Denver, Colo.           |
| McDuffie, Jeannette .....       | Dallas, Texas           |
| McDowell, Agnes .....           | Pueblo, Colo.           |
| McFadden, Tena .....            | Denver, Colo.           |
| McFarlane, Hazel M. ....        | Pueblo, Colo.           |
| McGarth, Nelle .....            | Denver, Colo.           |
| McGee, Edith .....              | Pagosa Springs, Colo.   |
| McGlove, Roy .....              | Denver, Colo.           |
| McGovern, Margaret .....        | Denver, Colo.           |
| McGowan, Cynthia .....          | Canon City, Colo.       |
| McGuffy, Verna .....            | Grover, Colo.           |
| McIlvaney, Isabelle .....       | Canon City, Colo.       |
| McIlvaney, May .....            | Canon City, Colo.       |
| McIntyre, Georgia .....         | Magnolia, Ark.          |
| McIntosh, Benjamin H. ....      | Chevenne, Wyo.          |
| McIntosh, Louisa .....          | Lost Springs, Kan.      |
| McKenny, Florence .....         | Lamar, Colo.            |
| McKennie, Alice .....           | Webster Groves, Mo.     |
| McKinney, Grace .....           | Lamar, Colo.            |
| McKenzie, Helen .....           | La Junta, Colo.         |
| McKinstry, Alice .....          | Sedgwick, Colo.         |
| McKinstry, Ethel .....          | Sedgwick, Colo.         |
| McKinstry, Kenneth .....        | Greeley, Colo.          |
| McKitterick, Margaret .....     | Wilson, Kan.            |
| McKnight, Edith .....           | Denver, Colo.           |
| McLain, Mrs. Anna .....         | Greeley, Colo.          |
| McLean, Etta A. ....            | Littleton, Colo.        |
| McLean, Gladys .....            | Lamar, Colo.            |
| McLean, Soble .....             | Pierce, Colo.           |
| McLeod, Edwina Lavella .....    | Plattville, Colo.       |
| McMahon, Sister Charlotte ..... | Denver, Colo.           |
| McMolan, Marion .....           | Greeley, Colo.          |
| McMillan, Sadie R. ....         | Canon City, Colo.       |
| McMullen, Emma .....            | Pierce, Colo.           |
| McMullen, Sister Eustelle ..... | Trinidad, Colo.         |
| McMurry, Maude .....            | Savannah, Mo.           |



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