State Normal School Bulletin

SERIES III. NO. I.

State Normal School of Colorado

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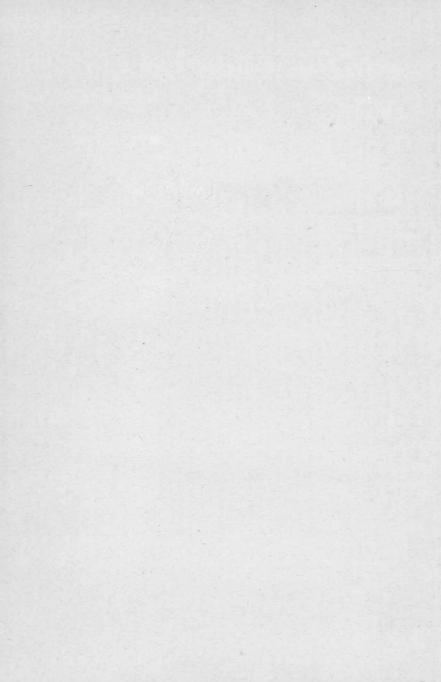


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JUNE 1902=1903

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ublished Quarterly by the Trustees of the State Normal School of Colorado, Greeley, Colorado





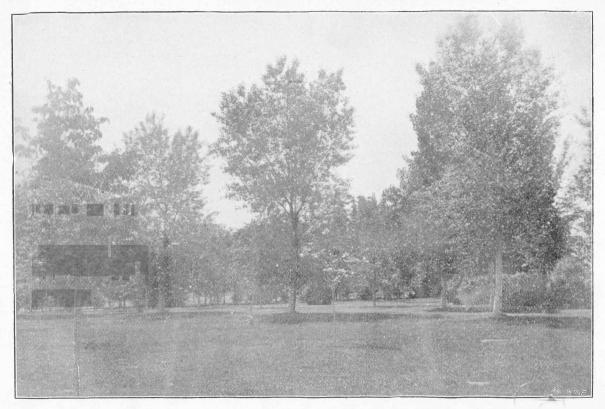
NINTH AVENUE ENTRANCE TO NORMAL GROUNDS.



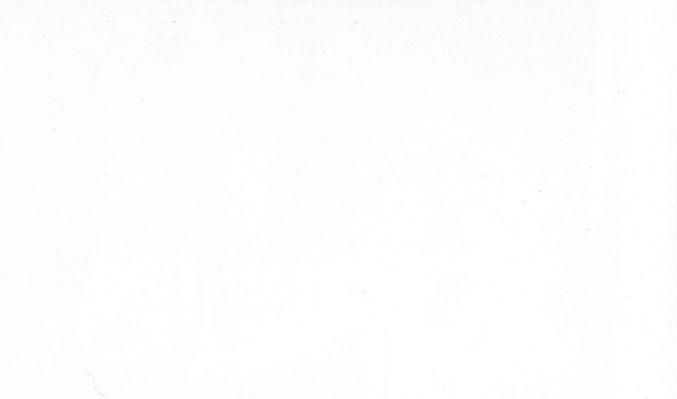


NORMAL BUILDING.





VIEW ON CAMPUS.





NORMAL GROUNDS-ENTRANCE VIEW.



ANNUAL CATALOGUE

OF THE

STATE NORMAL SCHOOL

OF COLORADO

GREELEY, COLO.

1902-1903 ...COLORADO... STATE NORMAL SCHOOL GREELEY, COLORADO

PUBLISHED BY
TRUSTEES OF STATE NORMAL SCHOOL

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CALENDAR

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ANNOUNCEMENTS.

1903-1904.

FIRST SEMESTER—NINETEEN WEEKS.

Opens Tuesday, September 8, 1903. Closes Friday, January 22, 1904.

SECOND SEMESTER—NINETEEN WEEKS.

Opens Monday, January 5, 1904. Closes Thursday, June 2, 1904.

HOLIDAY VACATION—FIFTEEN DAYS.

Begins Friday noon, December 18, 1903. Closes January 3, 1904.

COMMENCEMENT WEEK.

Baccalaureate Sermon, Sabbath afternoon, May 29, 1904.

Class Day Exercises, Tuesday evening, May 31, 1904.

Alumni Anniversary, Wednesday, June 1, 1904.

Commencement, Thursday, June 2, 1904.

Reception to Graduating Class, Thursday evening, June 2, 1904.

Alumni Banquet, December, 1903, Denver, Colo.

BOARD OF TRUSTEES.

Dr. R. W. CorwinPueble Term expires 1907.	0
Hon. James R. Killian	5
Hon. Jesse StephensonMonte Vist. Term expires 1905.	a
Mrs. Frances Belford	r
Hon. Richard Broad, JrGolder Term expires 1909.	n
Hon. C. H. WheelerGreele Term expires 1909.	y
Mrs. Helen L. Grenfell, State Superintendent of Public Instruction	r

OFFICERS.

RICHARD BROAD, JRP	resident
A. J. ParkS	ecretary
J. M. B. Petrikin	reasurer

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Jesse Stephenson. James R. Killian. Richard Broad.

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R. W. Corwin. Mrs. Frances Belford.

Mrs. Helen L. Grenfell.

C. H. Wheeler.

Kindergarten and Model School:

Mrs. Frances Belford. James R. Killian. Dr. R. W. Corwin.

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Jesse Stephenson.

Executive and Building:

C. H. Wheeler. Richard Broad, Jr.

Jesse Stephenson. Mrs. Frances Belford.

FACULTY.

1902-1903.

ZACHARIAH X. SNYDER, Ph. D., President, Education.

James H. Hays, A. M., Vice President, Latin and Pedagogics.

Louise M. Hannum, Ph. D., Preceptress, *History, Literature and English.*

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Anna M. Heileman, Reading and Physical Culture.

HARRIET DAY,
Art and Public School Art.

KATHARINE S. CLUTE, B. S., Domestic Science.

Samuel M. Hadden, Pd. B.,
Manual Work—Sloyd, Carving, Pyrography.

Frank L. Abbott, B. S., Physical Science and Physiography.

GRACE H. SPROULL, Ph. B.,
Associate in English, History and Literature.

JOHN T. LISTER, A. B., Modern Languages and Athletics.

DAVID L. ARNOLD, A. M., Mathematics and Athletics.

WILLIAM K. STIFFEY, Vocal Music and History of Music.

T. R. CROSWELL, Ph. D.,
Superintendent Training School and Pedagogy.

ROYAL W. BULLOCK, Training Teacher—Principal High School.

ELIZA KLEINSORGE, Training Teacher—Upper Grammar.

ELIZABETH H. KENDEL, Pd. M., Training Teacher—Lower Grammar.

ELEANOR PHILLIPS, Pd. M., Training Teacher—Primary Grades.

Bella B. Sibley, Pd. B., Training Teacher—Primary Grades.

E. Maud Cannell,
Director Kindergarten and Training Teacher.

R. H. Powell, A. B., A. M., Assistant in English.

John V. Crone, Pd. B., Assistant in Science and Curator of Museum. Albert F. Carter, M. S.,
Librarian and Bibliography.

Director of Physical Training.

Bookbinding and Library Handicraft.

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Lois E. Reid, Pd. B., Assistant in Mathematics.

Annie K. Keightley, Pd. B., Assistant in English.

WILLIAM B. MOONEY, Pd. B., Assistant in Grammar Training.

Dora Ladd, Pd. B., Assistant in Primary Training.

LILLIAN G. INGRAM, Assistant Librarian.

Beatrice Martin, Assistant Librarian. Vernon McKelvey, President's Secretary.

Office, Normal Building. Office hours, 8 to 12:50 and 2:00 to 5:30.

A. L. Evans, Landscape Gardener.

George H. Orr,
Assistant Landscape Gardener.

Benjamin Stephens, Engineer.

CHARLES STEPHENS,
Assistant Engineer.

EXAMINING BOARD.

1903.

Helen L. Grenfell, State Superintendent Public Instruction.

C. W. PARKER,
County Superintendent Sedgwick County.

Z. X. SNYDER, President School.

FACULTY COMMITTEES.

1903-1904.

Executive.

James H. Hays. Louise Hannum. T. R. Croswell. F. L. Abbott.

Society.

LOUISE HANNUM. ANNA M. HEILEMAN.

JAMES H. HAYS. GRACE H. SPROULL.

E. MAUD CANNELL.

Course of Study.

Z. X. Snyder. J. H. Hays. Louise Hannum. T. R. Croswell..

Alumni.

S. M. HADDEN. LIZZIE KENDEL. BELLA B. SIBLEY.
J. V. CRONE. JAMES H. HAYS.

ELEANOR PHILLIPS.

Reception.

F. L. Abbott. D. D. Hugh. Anna M. Heileman. John T. Lister. E. Maud Cannell.

A. E. BEARDSLEY. GRACE H. SPROULL.

Art.

Harriet Day.

Mrs. Eliza Kleinsorge.

Bella Sibley.

Anna M. Heileman.

T. R. Croswell.

Grace H. Sproull.

R. H. Powell.

Athletics.

JOHN T. LISTER.

S. M. HADDEN.

R. W. BULLOCK.

ANNA M. HEILEMAN.

KATHARINE CLUTE.

T. R. CROSWELL.

DAVID L. ARNOLD.

Mentor.

D. D. Hugh. A. E. Beardsley. Katharine Clute. Lizzie Kendel. E. Maud Cannell. David L. Arnold.

Music.

W. K. Stiffey.

Anna M. Heileman.

A. F. Carter.

D. L. Arnold.

Commencement.

JAMES H. HAYS.

ANNA M. HEILEMAN.

LOUISE HANNUM.

GRACE SPROULL.

E. MAUD CANNELL.

D. L. ARNOLD.

Training School.

T. R. Croswell.

Eleanor Phillips.

Lizzie Kendel.

ELIZA KLEINSORGE.

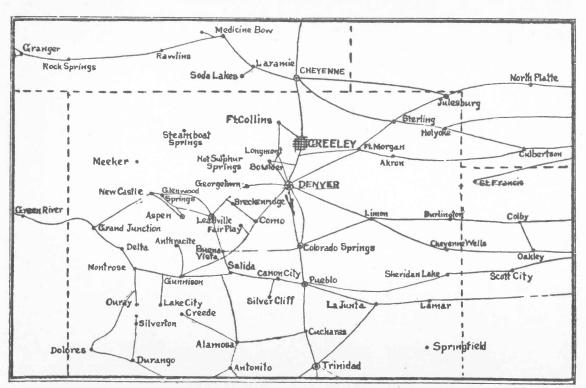
R. W. Bullock.

E. Maud Cannell.

Bella B. Sibley.

Museum.

J. V. Crone. A. E. Beardsley. F. L. Abbott.



GREELEY AND VICINITY

HISTORY OF SCHOOL.

The Colorado Normal School was established by an act of the legislature in 1889. The first school year began October 6, 1890.

At the beginning of the second year the school was reorganized somewhat, 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 makes the institution a professional school in the strictest sense.

LOCATION.

The Normal School is located at Greeley, in Weld county, on the Union Pacific railway, fifty-two miles north of Denver. This city is in the valley of the Poudre river, and is 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. It is a thoroughly prohibition town. There are about 5,000 inhabitants.

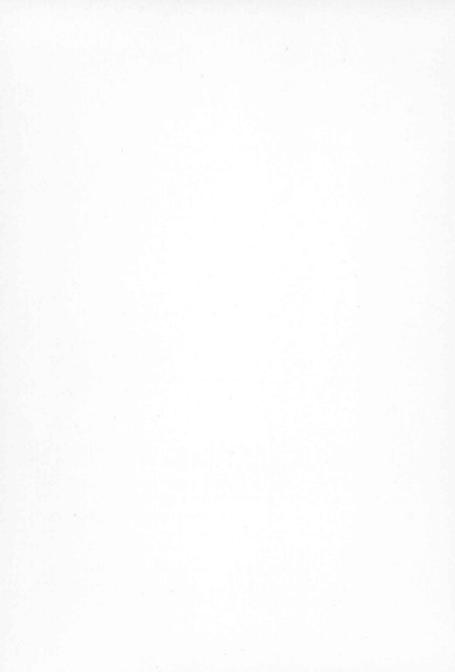
BUILDING.

The building is pressed brick, trimmed with red sandstone. There is no finer normal school building in the United States, and none more commodious. It is 240 feet long. This building is situated in the midst of a campus containing forty acres overlooking the city. The building is heated throughout by steam—chiefly by indirect radiation. A thorough system of ventilation is in use, rendering the building healthful and pleasant. It is supplied with water from the city water works. There is under construction a splendid library building 180 feet long.

MAINTENANCE.

The maintenance of the State Normal School is derived from a millage of one-fifth of a mill on the dollar for the entire assessment of the state. The legislature also makes special appropriations for building and general development.

Normal Department



THE FUNCTION OF THE NORMAL SCHOOL.

The function of the Normal School 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. This wide and 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, those preparing to teach, the home, the state, society, and the course of study.

I.—RELATION TO FACULTY.

The faculty is the school. Its power and influence consists in its faculty. The teachers should be picked men and women. They should be persons who have especially fitted themselves. Normal School work is unique. To be a teacher of teachers requires very special qualifications and preparation.

- a. Character stands paramount in the equipment of a teacher. Nothing can take its place.
- b. Ability to teach ranks next in the hierarchy of qualifications. This is ability to adapt self and subject to the pupil. It is ability to inspire to action. It means one whose nature blends with those being taught. It is a natural gift specially trained.
- c. Scholarship is the reserve power of every strong teacher. It commands respect. The scholarship of a Normal School teacher should first be liberal, then special.

d. Culture is essential. It gives tone to the entire personality. It is the development of the finer nature. It means good manners, good taste, refined thoughts, elegant expression, pure spirit.

e. Professional ethics and spirit bind the faculty into one harmonious whole, without which there is a great lack of efficiency. A due recognition of the above should characterize all the members of the faculty. Due regard for each other in speech and manner should always exist.

II .- RELATION TO THE CHILD.

In the preparation of teachers the end in view is the education of the children of the state. The child is the supreme concern. The function of the Normal School is to give such an interpretation of the child and its development in all directions as will best prepare it to enter fully, readily and righteously into its environment.

III.—RELATION TO THOSE PREPARING TO TEACH.

- a. An individual who enters to take a course in the State Normal School should have maturity of mind. This is absolutely necessary in as much as the student who is studying subjects in their relation to the education of children has a more complex problem than the person who is studying the subject for the subject's sake.
- b. The individual who enters should have reasonably good health. The work of the Normal School demands that the student should have good health. The work of the teacher requires it.
- c. One who is contemplating becoming a teacher should have a natural fitness to teach. The student can

usually feel this; but when the authorities discover a lack of natural ability in a student to make a good teacher, the student should be informed.

- d. Common sense is a very superior qualification for the teacher.
- e. Clean character is fundamental. Clean thoughts, pure motives, high ideals are essential.
- f. Intellectual ability is presupposed in the preparation of the teacher.

IV.—RELATION TO THE HOME.

A very close relation exists between the teacher and the home. The teacher and the parents should be acquainted. The teacher should be intimate enough to talk candidly and freely about the interests of the child. The function of the Normal School toward the home is so to prepare the people who enter that they may intelligently study the nature and wants of the child in common with the parent.

V .- RELATION TO SOCIETY.

Since the child must become an organic part of society, the teacher should have an intelligent view of the relation of a child's education to the needs of society. The needs of the child and society are reciprocal. The aim is to individualize and socialize the child.

VI.—RELATION TO THE STATE.

The function of the Normal School to the state is apparent. The state is interested in the education and general intelligence of all its people. To this end she founds

schools and maintains a public school system. The Normal School becomes the very heart of this system. It prepares those who go out to have charge of the youth of the commonwealth.

The responsibility of no institution of learning is so great as that of a Normal School. It has a great function. It exerts its influence on the mountain and on the plain; the mining district, the stock-growing region and the agricultural sections all feel its influence. It reaches profoundly into the lives and activities of the people. It is the people's school.

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.

Algebra36 weeks	5	periods	10 T. H.*
Geometry36 weeks	_	_	10 T. H.
English36 weeks	_	_	8 T. H.
Reading and gymnas-			
tics36 weeks	3	periods	6 T. H.
Physics and Biology36 weeks	5	periods	10 T. H.
Music36 weeks	3	periods	6 T. H.

JUNIOR.

Requisites—40 Term Hours.

Training School-

I. Observation36 weeks	I period	2 T. H.
2. Seminar36 weeks	1½ period	3 T. H.
3. Arithmetic36 weeks	1½ period	3 T. H.
4. Reading and Physi-		
cal Culture36 weeks	2 periods	4 T. H.
5. Public School Art36 weeks	3 periods	6 T. H.
Psychology36 weeks	3 periods	6 T. H.
English and Literature.36 weeks	4 periods	8 T. H.
Sloyd, Domestic Econ-		
omy36 weeks	2 periods	4 T. H.
Biology36 weeks	2 periods	4 T. H.
79 47 4	-	

4 T. H.

Music36 weeks 2 periods

^{*}T. H. denotes Term Hours.

SENIOR.

Requisites—40	Term	Hours.
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I. Practice in Teach-		
ing36 weeks	5 periods	10 Т. Н.
2. Seminar36 weeks	1 period	2 T. H.
3. Geography36 weeks	1½ period	3 T. H.
4. History and Litera-		
ture36 weeks	2 periods	4 T. H.
5. Music36 weeks	2 periods	4 T. H.
Philosophy and History		
of Education36 weeks	5 periods	ю Т. Н.
English and Literature.36 weeks	3 periods	6 T. H.
Reading and Physical		
Culture36 weeks	1½ period	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.

ject, the second designate the 1. 11.	
Group I-Latin, German, French, Spanish, Eng-	
lish and Literature5	IO
Group II—Anthropology, Sociology, History,	
Government5	IO
Group III—Physiology, Psychology, Pedagogy. 5	IO
Group IV—Physics, Chemistry, Physiography,	
Biology5	IO
Group V—Trigonometry, Analytical Geometry. 5	IO

Group VI—Art5	IO
Group VII—Sloyd, Cooking and Sewing, Library	
Handicraft5	10
Group VIII—Reading and Physical Culture5	IO
Group IX—Kindergarten5	IO

I.—PSYCHOLOGY.

Psychology, as other branches of science, has both a culture and a practical value. The maxim, "Know thyself," expresses a legitimate demand of the intellect; hence the study of psychology has a right to claim a share of the attention of every person who desires a liberal education. Apart, however, from its culture value, psychology has a well-recognized practical application, especially in educational work. A teacher must understand the phenomena and laws of mental growth, if he is to be an intelligent member of his profession. Otherwise he tends to be a slavish imitator of others, without a just appreciation of the value of his subject matter or of his methods of instruction.

The scope of psychology has been materially widened during recent years. The psychologist must now know something of the anatomy and physiology of the nervous system, and of the relation of mental and neural processes. It has been recognized, moreover, that a knowledge of the fully developed human consciousness is not enough to satisfy either our theoretical or our practical needs; we must also have a knowledge of the development of mind in the individual and the race. Excursions in comparative

psychology have revealed a fruitful field of investigation; and the study of abnormal mental states has not only proved to be a subject of absorbing interest, but has contributed to a better understanding of our normal mental activities. To understand the relation of these different branches of psychological study, a sketch of the history

of psychology is also desirable.

The methods of psychology, not less than its subject-matter, has undergone marked transformation. The most noticeable change has been in the introduction of experiment in the investigation of psychological problems. The value of introspection is not thrown into discredit by this fact, but the desire for greater definiteness of results demands that this method shall be supplemented by experimental work. The study of comparative and genetic psychology, moreover, has given a wider range for observation.

JUNIOR COURSE.

The work of the first semester is largely physiological and experimental. Considerable attention is given to the anatomy and physiology of the muscular and nervous systems. Structure is illustrated by dissections, lantern slides, charts and models. A series of experiments upon the functions of muscle and nerve will be performed. This part of the work will include the consideration of such problems as the following, the chief emphasis being placed upon those that have a practical value for the teacher; fatigue, physical and mental; the rate of growth in boys and girls; the relation of body weight and brain development to intelligence; the localization of cerebral

functions; the sensori-motor arc and its pedagogical significance; sensory and motor training; and nascent stages, with especial reference to adolescence.

The latter part of the first semester is devoted to a study of the organs of the special senses and the sensations derived from them. The topics will be as follows:

The skin and the dermal senses. The kinæsthetic and static senses. The tongue and the gustatory sense. The nose and the olfactory sense. The eye and the ocular sense. The ear and the auditory sense.

This work will be carried on chiefly by the laboratory method. Problems will be selected under each heading with the view of enabling the student to discover the more important facts of the subject under discussion, and to gain some experience with the methods of experimental psychology. The laboratory is well equipped for work of this kind. Besides the duplicate sets of apparatus for individual work upon the simpler experiments, it contains several hundred dollars' worth of more elaborate pieces. making it one of the best equipped psychological laboratories in the West. Among these are a Fitz chronoscope. an ergograph, a sphygmograph, an electric time marker, a set of Helmholtz's resonators for the analysis of compound tones, a pair of graduated tuning forks for the determination of the least perceptible difference in pitch, a Galton's whistle and an Appun's reed for finding the upper and lower limits of pitch, an algometer, an olfactometer, dynamometers, a tilt-board for work upon the static sense, besides many other pieces.

The work of the second semester consists of a systematic study of the mental processes, cognitive, emotional and volitional. The chief topics of study are sensation, perception, memory, association of ideas, apperception, attention, conception, judgment, reasoning, the emotions and the will. The last topic will include a discussion of instinct and habit, and some consideration of the bearing of evolution and heredity upon mental development. A brief study will also be made of abnormal mental states, as illusions, hallucinations, dreams and hypnosis, in which there will be some demonstrations.

No text-book will be followed in any part of this course, but in connection with the study of each topic references will be given to the books in the library. It is designed, however, that the reading shall follow, as a rule, the class discussion, as it is desired that the students shall be trained to analyse the data they already possess or may be able to obtain by introspection or experiment, and to form their own conclusions. The reading of the text-book follows as a means of supplementing the work of the class.

The psychological section of the library of the school is well supplied with books on this subject. There are several duplicate copies of books most used, so that the members of the class may be supplied with reading matter. Besides books of a more purely physiological character, there may be found the works of James, Ladd, Sully, Stout, Baldwin, Wundt, Titchener, Scripture, Kulpe,

Hoffding, Ziehen, Spencer, Bain, Stanley, Binet, Ribot, Jastrow, Dexter and Garlick, Halleck and others.

During each semester the students make a special study of some problem, either individually or in groups, and report the results of their investigation in writing.

This course is followed by one in

HISTORICAL PSYCHOLOGY.

This work embraces the *History of Psychology* and *Race Psychology*. The work in the history of psychology is a review and study of the different systems that have developed in the different countries, and also a study of the founders of these systems. The work in race psychology is a study of race elements—physical, mental and spiritual. It is a study of the race intellect, conscience and will, as expressed in the history and literature of the race. This work is supplemented by a course of lectures in

CHILD PSYCHOLOGY.

The work in child psychology is going on all the time in the kindergarten and Training school. Besides this observation work, there is specific work assigned in which each student is required to solve problems pertaining to child study. This work is directed and inspired by a teacher meeting ten or fifteen students in conference once or twice a week.

EDUCATIONAL PSYCHOLOGY.

By this course is meant the application of the principles of Psychology in the management of the Training

school. It embraces the psychology of teaching, of governing, of the course of study, the management of the school, and, indeed, the management of the community educationally.

II.—PHILOSOPHY OF EDUCATION.

I.-INTRODUCTION.

- I. Meaning of the Philosophy of Pedagogy: A love of the wisdom to lead a child.
- 2. The Imprisonment of the Individual: His potential—an involution—matter, life, mind, spirit.
- 3. His Freedom: Emancipation, evolution, education.
 - 4. The Mass—Its evolution.

II.—INTERNAL ENERGIES.

- I. Evolving, or Growing: The vital, the mental, the social, the spiritual principles.
- 2. Hereditary, or Directive: a. Race Experiences; wonder, wander, heroic, romantic, altruistic. b. National Experiences; national organism, national mind, national spirit. c. Family Experiences; appearance, organic tendency, temperament, disposition, etc.
 - 3. Volitional: desire, deliberation, choice.
 - 4. Spiritual: deeper nature.

III.—EXTERNAL ENERGIES.

- I. Nature: as matter and life.
- 2. Mind: man, home, church, state, society.

- 3. Spirit: of nature, of mind, of civilization, of God.
 - (1). These build the potential.
 - (2). They occasion its unfolding.

IV.-NATURES.

- I. The Physical Life: medium of revelation.
- 2. The Mental Life.
- 3. The Social Life: opinion, institutions.
- 4. The Spiritual Life.

V .- LIVING MOMENTUM.

- 1. Individuality.
- 2. Personality: transfiguration, humanity.
- 3. Spirituality: transformation, divinity.

VI.—CHARACTER—EXPRESSION.

- I. Pedagogical Graces: truth, beauty, good.
- 2. Christian Graces: faith, hope, love.

III.—SCIENCE OF TEACHING.

Science consists in knowing a systematic order of things and their relation, and the laws which regulate them. This is apparent in the science of astronomy, physics, chemistry, biology, mathematics, etc. Equally is this apparent in the science of the mind—psychology. This conception of psychology has given rise to the scientific method in its study. The science of teaching grows out of the same conception. It consists of a knowledge of the physical, vital, mental and spiritual phenom-

ena, involved in and around the individual, the laws which regulate them, resulting in his development. Without psychology there can be no science of teaching.

OUTLINE OF WORK.

I.—AGENCIES INVOLVED IN EDUCATION.

- a. Child—being to be educated.
- b. Teacher—person who directs.
- c. Nature—earth and its forces.
- d. Man—civilization.

II.-REQUISITES OF THE TEACHER.

- a. Knowledge of self.
- b. Knowledge of the child.
- c. Knowledge of nature.
- d. A knowledge of the relation of the child to nature and civilization.

III.—ENDS TO BE REACHED IN THE EDUCATION OF THE CHILD.

a. Development of

- 1. Body—Health, sanitation.
- 2. Mind.
- 3. Spirit.

b. Participation-

- I. Actualization—Individuality.
- 2. Transfiguration—Personality.
- 3. Transformation—Spirituality.

IV.—REQUISITES TO THE ACCOMPLISHMENT OF THESE ENDS.

- a. Body must have
 - I. Food—Dietetics.
 - 2. Exercise—Play, gymnastics, athletics.
 - 3. Training.
- b. Mind must have
 - I. Knowledge—Facts.
 - 2. Thought—Relations.
 - 3. Training—Practice.
- c. Spirit must actualize
 - I. Duty-Virtue.
 - 2. Conscience—Good.
 - 3. Love—Spirituality.

V.—NECESSARY CONDITIONS IN THE EDUCATION OF A CHILD.

- a. Activity is fundamental in all development, whether physical, mental or spiritual.
- b. Activity results, primarily, from energies acting from without.
 - c. All the natures of a child are interdependent.

IV.—ART OF EDUCATION.

I.—ORGANIZATION OF SCHOOL.

- a. Parts—
 - I. Children.
 - 2. Teacher.

- 3. Directors.
- 4. Patrons.

b. Functions-

- I. Of children.
- 2. Of teacher.
- 3. Of directors.
- 4. Of patrons.

c. Harmony.

II. GOVERNMENT OF SCHOOL.

- a. Object—preservation.
- b. Aim—discipline.
- c. End—Freedom.

III.-INSTRUCTION.

a. Processes-

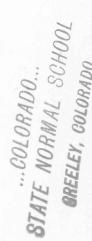
- I. Thinking.
- 2. Knowing.
- 3. Expressing.

b. Results-

- I. Knowledge.
- 2. Power.
- 3. Culture.
- 4. Motivity.
- 5. Realization.

V.—HISTORY OF PEDAGOGY.

1. Educational systems—the conceptions underlying them, their evolution, their founders, their success, their failure.



- 2. A study of the great educators—theoretical and practical—and their influence on pedagogy and the social problems of their time.
- 3. The influence of the doctrine of evolution on pedagogy, and also its influence on moral and social problems—the universality of the doctrine.
- 4. The practical outcome of a study of the history of pedagogy in relation to teaching and in relation to life.

SCIENCE.

The work in science is done from the pedagogical standpoint. While the subject matter is treated, it is from the standpoint that the student is able to teach it to children or to adults.

The foundation of all knowledge consists in correctly representing sensible objects to our senses so that they can be comprehended with facility.—John Amos Comenius.

Science teaching is leading the pupil to be able to interpret his surroundings as a composite of objects and forces, and to see his own individual relation to nature, so as to be able to utilize these objects and forces and to derive a discipline and culture therefrom, whereby he may be a potent factor in the development of the race; and as a being who possesses an immortal nature, see in objects and forces and laws Providence as an intelligent and supreme ruler of the universe.

This conception of science teaching requires activity upon the part of the pupil. In accordance with this view, the work is done.

The school has well equipped

LABORATORIES.

The entire third story of the main building is now devoted to the departments of science. The laboratory for Zoology and Botany, over the library, is the largest, and contains ten tables, each large enough for four students. These are supplied with drawers, small aquaria and facilities for microscopic work and dissections. Around the walls are large aquaria, blackboards and cabinets containing the natural history collections and a department library. Especially noticeable are the herbarium cabinet and the fine cases for insects.

Adjoining the laboratory at the west end is the recitation room for biology and at the east end is the recitation room and laboratory for *human physiology*. This is supplied with demonstration table, anatomical models, charts and apparatus to illustrate the physics and chemistry of the human body.

Across the corridor is the *physical laboratory* and recitation room. It is fitted with substantial, cherry-topped tables for individual work by about thirty students at once, and has also a large demonstration table for the instructor's use, with sink and water, drawers and closets. This room and two others used by the instructors in biology and geography are equipped with facilities for solar projection work.

The *chemical laboratory* adjoins the physical, and is probably as conveniently arranged as that of any similar school in the country. It is furnished with eight desks,

exclusive of that used by the instructor, having shelves, cupboards and drawers with individual locks for three divisions of thirty-two students each. Each desk is intended for four students at a time and has two leadlined sinks with water and gas pipes and a two-chambered ventilating hood with glass doors, lead floors, and copper flues through the ceiling for carrying off foul gases. The desks are of butternut and have renewable oil-cloth tops. The instructor's desk is similarly furnished, but has also apparatus for the distillation of water, including a large copper retort and condenser with block tin worm. There are also tables and a work bench with a set of tools for the making of apparatus. On three sides of the room are cases with glass doors for the department library and for apparatus, chemicals and other supplies; the remaining side has blackboards, bulletin board and keyboard.

Handsome cases all about the walls of the large corridor on this floor are also used for the larger apparatus of the department of physics and physiology and for museum collections in natural history. A gas machine is to be provided to furnish gas for laboratory use.

PHYSIOLOGY AND HYGIENE.

The claim of physiology to a place in the curricula of our schools is receiving fuller recognition in recent years. Its worth as a subject of instruction consists not alone in its contribution to the general culture of the student, nor in the mental discipline derived from its study; the practical knowledge it supplies must also be taken into account. As self-preservation is the first law

of nature, the maintenance of the health of the body must always be an object of interest to every intelligent person. Hence, as Herbert Spencer says, "such a course of physiology as is needful for the comprehension of its general truths, and their bearings on daily conduct, is an allessential part of a rational education."

The methods of teaching physiology are those that belong in common to the various departments of scientific instruction. A knowledge of the subject, to have any value, must be founded upon observation and experiment. It is needless to say that this mode of procedure has not always been followed. Too often the memorizing of words has taken the place of the study of objects; readymade conclusions have been learned by heart instead of being gradually reached by an inductive process. Even where observation and experiment are introduced, the object is usually to illustrate the descriptions of the textbook. All this is undoubtedly wrong. As in the other sciences, the student should begin by studying objects. and the text-book should be used afterward to supplement and systematize the knowledge gained from the laboratory work. This method is not impracticable, even in schools which have a very moderate equipment, and is the one which will yield the most valuable results.

In order to prepare students to be teachers of physiology and hygiene in the public schools, an elective course in these subjects will be offered to the members of the junior and senior classes. The course will extend through the school year. While most of the time will be devoted to a study of the functions of the body and to the condi-

tions that are necessary for the preservation of its health, the study of structure, gross and microscopic, will also be pursued, in so far as this can be made to contribute, in the time allotted to the course, to a better understanding of the normal bodily activities. A great deal of emphasis will be placed on the subject of hygiene, on which about a third of the time will be spent. This will include a consideration of such topics as the relation of bacteria to disease; modes of dissemination of communicable diseases; immunity; school-room heating, lighting and ventilation; the seating of pupils; hygienic conditions of study, and the care of the sense organs. The diseases of school children and the symptoms by which they can be recognized will receive especial attention.

About one-half of the recitation periods will be spent on laboratory work. In the study of anatomy dissections of suitable mammals will be made to illustrate the more important facts of structure. Injected specimens will be prepared for work upon the circulatory system. The laboratory is also supplied with charts, articulated skeletons and models, including a full set of the Bocksteger anatomical models, and eight sets of the Witmer models, and one large Auzoux model, of the brain. Lantern and microscopic slides will be used to illustrate the finer structure. Numerous experiments will be performed in studying the physiology of muscle, nerve, circulation, respiration and digestion. Students will become familiar with the use of the kymograph, sphygmograph, ergograph, reactiontime apparatus, cardiograph, phonendoscope, Du Bois Reymond inductorium, commutator, muscle forceps and lever, time marker, electrodes and other apparatus used in a physiological laboratory. In connection with the work on hygiene a study of bacteria will be made in the biological department.

Reading will be assigned on the various topics discussed. A good supply of books for this course is kept in the library, including the standard works on anatomy, histology, physiology and hygiene.

SOCIOLOGY.

No subject of instruction has aroused such intense popular interest in recent years as sociology. This is due, according to one of our sociologists, to "a dawning social consciousness." We are beginning to realize that the society of which we form a part is not less worthy of our study than our physical environment. There is a growing conviction, moreover, that the organization of society and the modifications which it is undergoing should not be left to chance, but must be subject to intelligent direction if each member of society is to attain his highest possible well-being. Thus the interest in the study of sociology is not due merely to our curiosity, but is the outgrowth of the desire for better conditions of life for ourselves and others. Upon the teacher the subject has especial claims, for it is apparent that education does not mean merely the development of the powers of the individual, but his preparation for membership in a social organism. Hence the study of the child that is to serve as a basis for pedagogy must include a consideration of his social relations. We must know not only the value of the subjects of instruction, but also how the social environment of the school can be made most effective in the work of education.

To meet the need for instruction in sociology an elective course, extending through the school year, will be offered in this subject. The first topic to be considered will be the scope of sociology and its relations to the allied branches of knowledge. This will be followed by a brief study of a number of problems of sociological and economic interest, as the evolution of our modern industrial system, trades-unions, strikes and lockouts, arbitration, co-operation, profit-sharing, workingmen's insurance, charities, correction, trusts and monopolies, direct legislation, municipal ownership and socialism. In the latter part of the year the chief emphasis will be placed upon the study of education from a sociological point of view. This will include a brief survey of the leading European educational systems in comparison with that of this country, and the consideration of the material for a course of study and of the methods of instruction that are best adapted to train children to be intelligent and useful members of society.

The work of the class will consist to a considerable extent of reports by the instructor and students and of the discussion of the subjects presented. References to reading matter will be given in connection with each topic. Provision will be made in the library for suitable literature. A large addition has recently been made to the books of the sociological department, and every effort will be made to keep it abreast of the times.

PHYSICS.

Physics is studied by the laboratory method. Students here learn to "read nature in the language of experiment." They spend two hours consecutively in the laboratory once a week, performing the experiments themselves, taking notes, making drawings and explaining what they observe. This is followed by reading from reference books and discussions.

Special attention is given to the application of physical principles in the explanation of common inventions and every-day phenomena. Illustrations of the law of the conservation of energy are everywhere sought for.

The school is provided with many valuable pieces of physical apparatus, including a fine air pump, a hydrostatic press, a whirling table, an Atwood's machine, a delicate Træmner balance, a microtome, a steam engine, a thermopile, a Tæpler-Holtz electric machine, a hand dynamo, Westinghouse generator of 125 volts, 15-ampere, four-horse-power gasoline engine, a motor, induction coils, galvanometer, batteries, heliostat with stereopticon slides, a spectroscope, a polariscope, a siren, sonometer, organ pipes, diapasons, etc.

But though good use is made of these, the members of the class are taught to improvise, from such materials as may be gathered anywhere without expense, apparatus which they can take into the public schools and use in performing simple experiments to explain the elementary facts of physics, chemistry, physical geography, meteorology and physiology.

Following are some of the pieces of SCHOOL-MADE APPARATUS

which pupils are taught to construct:

Barometer,
Air pump, from a bicycle
pump, and accessory
pump to illustrate exapparatus for the above
periments in gases.

Lifting pump

Lifting pump,
Force pump,
Model of respiratory organs,

Magnetic needle,
Plunge battery,
Boyle's law apparatus,
Capillary tubes,
Spirit lamp,
Unequal expansion apparatus,
Conductometer,
Air thermometer, etc.

In connection with this work students are taught how to bore and cut glass bottles, lamp chimneys, etc., and the manipulation of glass tubing and metals.

Further, the course in Sloyd has been so planned as to include a graded series of wood-working exercises in the making of apparatus to be used in the course of physics and chemistry and in teaching elementary science in the public schools.

CHEMISTRY.

ELECTIVE.

First Year—5 Periods Per Week.

This course assumes that the student has had at least a half year's work in chemistry in some high school.

The subject is given by laboratory work and recitations.

The laboratory is fully equipped and students are required to do individual work. Four periods per week of laboratory work are required for the first twenty-four weeks. The remaining time is spent in analytic work and requires ten periods per week. One laboratory period is equivalent to one class period.

The subject is correlated with Physiology, Physiography and Domestic Economy, that students may make immediate use of the chemical experiments in elucidating the teaching of the above subjects.

OUTLINE OF WORK.

I. General Chemistry—

- (1) Review properties of oxygen, nitrogen, hydrogen and carbon.
- (2) Study of compounds of the above elements.
- (3) Relative importance of these elements and their compounds in the inorganic and organic worlds.
- (4) Writing of chemical equations and solution of chemical problems.
- (5) Characteristic acids, bases and salts.
- (6) Preparation of salts, acids and bases.
- (7) Study the properties of typical acids and bases.
- (8) Study properties of non-metals, metals and some of their compounds.

II. Quantative Analysis—

(1) Twenty or more solutions, containing but one salt.

- (2) Solution containing any or all of the common metals.
- (3) Alloys.
- (4) Baking powder, etc.

Second Year.

- I. Organic Chemistry—24 weeks.
 - I. Methane and Ethane.
 - 2. Halogen Derivatives of Methane and Ethane.
 - 3. Oxygen Derivatives of Methane and Ethane. Alcohols—Fermentation—Formic and Acetic Acids, etc.
 - 4. Nitrogen Derivatives of Methane and Ethane or the Cyanides, etc.
 - 5. Hydrocarbons of Methane or Paraffins.
 - 6. Oxygen Derivatives of Paraffin Series, or the Higher Alcohols—Stearic Acid, Soaps, Glycerine, etc.
 - 7. Carbohydrates Glucose-Sugars—Starch —Gums, etc.
 - 8. Benzene Series of Hydrocarbons and their Derivatives, etc.
- II. Quantative Analysis—10 weeks.
- III. Mineralogy—2 weeks.

Blow pipe tests, heating in open and closed tubes, etc., simply to determine name of many of common minerals.

BIOLOGY.

BOTANY.

Second Semester, 5 Hours.

Physiology-

Protoplasm and its movements.

Absorption. Diffusion. Osmose.

Absorption of liquid nutriment.

Turgescence. Root pressure. Transpiration.

Path of movement of liquid in plants.

Diffusion of gases. Respiration in plants.

The Carbon food of plants.

Chlorophyll and the formation of starch.

Nutrition. Members of the plant body.

Growth.

Irritability. Causes of movement in plants.

Morphology-

Spirogyra or "brook silk." Œdogonium.

Vaucheria or "green felt." Colochaete.

Brown and red algæ.

Fungi; moulds; downy mildews, rusts; ascomycetes.

Liverworts; mosses.

Ferns; horsetails; club-mosses; quillworts.

Comparison of ferns and their relations.

Seed-plants. Gymnosperms. Angiosperms.

Lessons on Plant Families.

Ecology-

Winter buds. Growth of leafy shoots.

Leaf arrangement.

Seedlings.

Formation of early spring flowers.

Seed distribution.

Struggle for occupation of land.

Soil formation by plants.

Plant communities.

Adaptation of plants to climate.

ZOOLOGY.

First Semester (Required).

Morphology-

Study and dissection of typical forms-

Earthworm.

Grasshopper.

A fish.

Frog.

Turtle.

A bird.

A mammal.

Study under the microscope of Amœba and Paramœcium, and of sections and tissues of animals of higher groups.

Physiology—

Protoplasm and the cell.

Animals consisting of a single cell.

One-celled plants.

Physiology of the simplest animals.

Manner and means of taking food.

Metabolism-

Secretion.

Digestion.

Assimilation.

Production of energy.

Elimination of waste-

Respiration.

Excretion.

Growth.

Movement.

Irritability.

Reproduction.

Physiology of many-celled animals—

Comparison of the functions of Amœba with those of higher organisms.

Organs for the performing of function.

Adaptation of form to function.

Adaptation of form to environment.

The elements of classification, and the development theory.

ZOOLOGY.

Second Semester (Optional).

Principles and main outlines of classification.

Laboratory and field work.

Natural History studies of chosen groups.

The museum collections of entire animals and of dissections and preparations of special parts, together

with a large series of permanently mounted microscopic preparations, furnish abundant material for illustration.

Students will be required to dissect a considerable number of forms and to make permanent microscopic preparations. The laboratory is provided with a good equipment of microscopes, micortomes, stains and reagents. Alcoholic material for dissection is kept on hand, and fresh material is obtained as required. Considerable time will be given to field work and the study of habits. The reference library is well supplied with the literature of this subject.

NATURAL HISTORY.

Studies of the homes, habits and food of animals.

Insects—

Monarch Butterfly—Depositing the egg; form and appearance of the egg; hatching; mode of feeding; moulting and growth; pupation; study of the chrysalis; emergence of the imago; term of life; existence through the winter. Other common insects will be studied in a similar way. Students will be encouraged to study the insects in the field and to make collections for further study and comparison. For this purpose frequent excursions will be made to points of interest in the vicinity.

Literature-

Comstock's Insect Life. Hyatt & Arms Insecta.

Scudder's Butterflies.
Scudder's Frail Children of the Air.
Gibson's Sharp Eyes.
Weed's Life Histories of American Insects.
Miall's Natural History of Aquatic Insects.
Brightwen's Inmates of My House and Garden.
Badenoch's Romance of Insect Life.
Lubbock's Ants, Bees and Wasps.
Articles in magazines and periodicals.

Birds-

Red-winged blackbird, magpie, flicker, Canada jay (camp robber), crested jay, English sparrow, crimson-headed house finch, robin, water ousel, meadow lark, horned lark, yellow warbler, Bullock's oriole, quail, ruffled grouse, ptarmigan, cliff swallow, barn swallow, etc.

Literature—

Chapman's Hand-book of Birds.
Elliot's North American Shore Birds.
Maynard's Hand-book of Sparrows and Finches.
Baskett's Story of the Birds.
White's Natural History of Selborne.

Many volumes by Olive Thorne Miller, Samuel Lockwood, Bradford Torrey, Schuyler Mathews, C. C. Abbott, Ernest Ingersoll, and Ernest Seton Thompson; also magazine and periodical literature.

Mammals-

Studies of fur-bearing animals; common wild animals; big game; noted animals of other countries.

Literature-

Lydeker's Royal Natural History.

Kingsley's Popular Natural History.

Ernest Seton Thompson's Wild Animals I Have Known.

Ernest Seton Thompson's Biography of a Grizzly.

Ernest Seton Thompson's Trail of the Sandhill Stag.

White's Natural History of Selborne. Articles in magazines and periodicals.

Reptiles, Frogs and Fishes—

Studies of some of our native species.

PHYSIOGRAPHY.

This course aims to make not only students of geography, but teachers. To be the latter requires: I. A broader and deeper knowledge of the subject than the prospective teacher expects to teach. 2. The skill necessary to sketch and model readily, and to be master of good methods. 3. That kind of training which enables the student to recognize in his own neighborhood the elements and forces of the whole world. Ritter says: "Wherever our home is, there lie all the materials which we need for the study of the entire globe."

The geography *library* contains about one hundred and fifty bound volumes, well representing such lines as: Descriptive, commercial and historical geography, physiography, geology, meterology, astronomy, agriculture, methods and general geographical reading, besides most of the standard geographical magazines in the English language. The government publications which are of interest to the student of geography are regularly received.

We practice daily observations of climatic elements, both for immediate results and as a preparation for advanced work. These observations include: Thermometer readings, barometer readings, direction and velocity of wind, clouds, rain or snow, sun's noon altitude, place and time of sun's rising or setting.

Field work is also given to enable pupils to examine any locality from a geographical standpoint. The same work is the basis of primary geography teaching.

The *laboratory* furnishes the opportunity to study the most faithful representations of nature, as government maps and charts, photographs and accurate models of actual and typical forms in nature. Work and study upon such materials accompany text-book study and readings, and have produced marked results.

We have all the customary apparatus, as terrestrial globes, celestial globe, black globe, tellurian, solar lantern, wall maps, relief maps, thermometers, barometers, hygrometers, rain gauge, and a number of home-made pieces. Lantern views, photographs and models have become an important feature in our equipment.

We are indebted to the Santa Fe and Colorado Midland Railroads for some excellent and valuable framed pictures, which are very useful as geographical illustrations. The Florence & Cripple Creek and Midland Terminal roads have also given us excellent views.

Cabinet specimens are rapidly accumulating, including already a collection of woods, agricultural products, and an interesting mineral cabinet. Contributions from students and all friends of the school are always welcome.

OUTLINE OF WORK.

Mathematical Geography and the necessary Meteorology are taken up after Physiography of the lands. While the latter is being studied, constant observation and records of climatic elements are required.

Continuous records are expected of the following elements: Temperature, relative humidity, dew point, barometer pressure, sunset (place), sunset (time), sunrise (time), sun's noon altitude, sun's meridian time, clouds—kind—proportion, wind — direction — velocity, precipitation.

PHYSIOGRAPHY OF THE LANDS.

Submerged and exposed portion of earth's surface—

Divisions of submerged area—

Deep seas.

Continental shelves.

Mediterraneans.

Sediments of marginal and abyssal seas.

Distribution of ocean life.

General conception of wasting land—

Illustrations showing how the rate varies with climate, rock material and texture, and surface slopes.

Conclusion—All lands, regardless of texture or dimensions, must in time reach base level.

Contrast constructural and destructional forces.

Systematic succession of forms.

Classification of land forms based on evolution.

Weathering—

Preparation for transportation.

Mechanical agencies.

Chemical agencies and solution.

Organic agencies.

Manner of access of agents of weathering.

Soils.

Common minerals and rocks.

This section will cover the work of several weeks. A recognition of the commonest minerals and rocks is demanded, but they are treated chiefly as illustrations of the weathering processes and as sources of soils and other rocks.

What becomes of the rain-

Evaporation. Percolation.

Run-off

...COLORADO...
8TATE NORMAL SCHOOL
GREELEY, COLORADO

Work of running water—

Corrosion-

By chemical action and solution.

By mechanical work of tools.

Transportation—three ways—

In solution.

In suspension.

By rolling and pushing.

Deposits from water—

Interpretation of deposits.

Grading.

River life, features common to all regions—

Constructional valleys.

Modification of constructional valleys.

Development dependent upon materials—

Differential deepening.

History of falls.

Differential widening.

Migration of divides—captures.

Adjustment to structure.

Stages of development—

Infancy, youth, adolescence, maturity, old age.

Interruptions of cycle—

Volcanic, climatic, crust movements.

History and characteristics of different constructional forms—

(a) Under ordinary climatic conditions, plains, plateaus, mountains, volcanic features.

(b) Topographical features due to unusual climatic conditions.

Features of arid countries.

Of arid once humid.

Of glaciated countries.

Work of the sea upon shore lines—

How the shore line is offered to the waves.

Forms of each as offered.

Nature of waves and their work.

Tides.

Development of coast lines offered by the several constructional agencies.

THE EARTH AS A GLOBE.

Discussion of the mathematical principles involved in climate, and through climate in the physiography of the lands

Essential consideration, the distribution of sunshine. Secondary consideration, locating places on surface of the earth.

Form of the earth—movements of the earth—

Longitude and time, with special reference to the determination of longitude.

Phenomena of our latitude—phenomena of other latitudes—

Tilting of horizon in traveling north or south—
Changing position of oblique circles, and of north star.

Sun's noon altitude—various places and seasons. Place of rise and set (from the globe). Apparent path at any place on any day.

Lengths of day and night—demonstration of seasons— A general view of the globe.

All relations shown with apparatus to be carefully translated into phenomena as seen from the earth.

THE ATMOSPHERE.

Nature of the atmosphere—

Geologically considered. One of three envelopes.

Action upon other envelopes (stress here).

By virtue of its close relation to:

- I. The earth's heat.
- 2. The earth's moisture.
- 3. The earth's life.

Also through:

- 4. Chemical action.
- 5. Mechanical action.

Composition of the atmosphere—

With relation to life. With relation to weathering. With relation to heat.

Heat of the atmosphere-

Absorption, conduction, convection. Heating by pressure.

Control of heat distribution.

Latitude.

Altitude.

Pressure of water.

Water of the atmosphere-

Three states of water.

Dew point.

Relative humidity.

Evaporation.

Clouds.

Condensation and precipitation.

Circulation of the atmosphere—

How equilibrium is disturbed by heat.

Planetary circulation.

Equatorial calms, trades, tropical calms, westerlies.

Phenomena of shifting belts.

Contrast of summer and winter hemispheres.

Monsoons.

Special winds not cyclonic.

Storm areas of temperate latitudes—

High pressure areas.

Low pressure areas.

Path of storm centers.

Special winds connected with cyclones.

Weather maps-

Principles which make forecasting possible.

Rainfall chart of the world.

METHODS IN GEOGRAPHY.

- I.—Primary Work (first four years), when Geography and Nature Study are not separated, embracing the following:
 - I. Mathematical Concepts.
 - 2. Weather Elements (and seasons).
 - 3. Plants.
 - 4. Animals.
 - 5. Minerals.
 - 6. Physical Properties and Phenomena.
 - 7. People.
 - 8. Type Studies.
 - 9. Representation.
- II.—The course in Geography proper (three or four years).

Material of Geographic Studies:

Anthropic Races.

(read down) Society.

Political Divisions.

Astronomical Mathematical Geography

Natural Divisions.

Life Distribution (formal)

Life Conditions.

The traditional course, chiefly

Areal Geography.

Life Conditions.

(read up). Forms. Forces. Materials.

The above subjects are detailed and arranged in order according to the principle of Pedagogy to constitute a course of study.

APPLICATION OF THIS COURSE TO GRADE WORK.

Map making, projections.
Sketching.
Moulding in pulp.
Sketching in sand.
Supplementary reading.
Course of study for grades.
Primary science teaching.

MATHEMATICS.

The fundamental purpose of the department of mathematics is two-fold: namely, to induce and cultivate power in mathematical thinking, and to apply this power to the practical use of making the teaching of arithmetic and of elementary algebra and geometry in our common schools more rational and effective.

In all courses given the primary effort is to develop accuracy of thought, clearness of judgment, forcibleness of expression and rapidity and accuracy of action.

It is believed that satisfactory teaching is impossible unless the teacher's work is founded on a real knowledge and mastery of the principles involved in the subject. Hence the old question "How?" is constantly replaced by the more modern and vital "Why?" Thus memorizing is replaced by understanding, and the mathematical parrot

by the mathematical thinker—the assumption being that the individual who knows why he acts will easily and rightly construct the how.

In all work the student is urged and assisted to interpret concretely and in terms of his own experiences the truths he learns, so that they may become a part of himself. He is kept constantly in a laboratory atmosphere, and is encouraged to discover new truths, or new ways of testing and proving truths already known.

A special course in arithmetic is worked out in which the effort is made to arrive at the fundamental principles underlying the work in arithmetic, and thus to discover the material that should be given to children, and the best methods of presenting it to them.

Courses in advanced algebra and geometry and in trigonometry and co-ordinate geometry are offered. Whenever there is demand for them, courses in more advanced mathematics are given.

LITERATURE, HISTORY AND ENGLISH.

The general aim of the work of this department is threefold: first, to give the pupil an outline conception of the development of the greater forms of literary expression in their relation to the history of European civilization; second, to introduce the student to as many masterpieces as possible in such a way as to cultivate intelligent enjoyment of literature as an art; third, to develop the powers of self-expression side by side with knowledge and interest, so that the pupil may write about

what he learns and thinks simply, naturally and clearly. The chief means used throughout the course, with exception of the first semester of the junior year, is constant practice in the discriminating, responsive interpretation of worthy texts. The history of literature is taught for the most part incidentally, in connection with the study of particular authors and works. Rhetoric is studied only so far as it connects itself, on the one hand, with the study of books, furnishing the student with apparatus for analysis and criticism, and, on the other hand, with practice in composition, acquainting the pupil with such elementary principles as can be continually applied in his practice in writing.

TEXT-BOOKS.

Pupils will find themselves greatly assisted in their work by the possession of a few books which, unlike those belonging to the library, may be always at their command. Especially recommended (if the student have no more extensive works covering the same ground), are certain history and literature primers, especially Fyffe's History of Greece, Creighton's Rome, Brooke's English Literature, Jebb's Greek Literature, and Dowden's Shakespeare (price, thirty-five cents per volume). Other desirable helps include a good dictionary, an historical atlas, a manual of mythology, and an annotated edition of Shakespeare's chief tragedies and comedies.

SOPHOMORE YEAR.

Careful reading of Macbeth, Milton's Paradise Lost (Books I and II), selections from the Sir Roger de

Coverley Papers, Colridge's Rime of the Ancient Mariner, Tennyson's Enoch Arden, Arnold's Sorab and Rustum, one essay from Emerson; elementary study of the form of literature and of the salient features of structure and method represented by each book; constant practice in simple writing, with review of the principles especially applicable to the correction of common errors in syntax and idiom.

JUNIOR YEAR.

First semester: Outlines of early Indo-European literature, with special reference to the natural epic and the development of the drama; decline of Latin and rise of modern languages, with a brief survey of mediæval romance cycles and prominent lyric forms; outline history of the English language, with elementary study of words for mastery of a writing vocabulary; reading of the Antigone of Sophocles and of four books of Pope's translation of the Iliad; practice in narrative and descriptive writing.

Second semester: Introductory survey of the development of English literature to the time of Shakespeare; the reading of Hamlet, the Merchant of Venice, and Henry V, with study of the nature and structural principles of the drama; detailed study of the paragraph with constant practice in expository writing.

SENIOR YEAR.

First semester: Argumentation and the essay; study of the qualities of prose style with exercises in comparison and criticism; the reading of Burke's Conciliation

with America, and of selected essays from Macaulay, Carlyle, Arnold and Emerson.

Second semester: Nineteenth century poetry; study of some of the best work of the poets with reference to the characteristics and tendencies of modern verse and the conditions which have influenced it.

LATIN.

In the study of Latin, three objects are kept constantly in view:

- I. Careful attention is given to the etymology of English words of Latin origin. Students are encouraged to search for and note the English derivatives of Latin words, with correspondences and differences in shades of meanings. Thus, by careful comparison of the words of both languages, students will be given such an acquaintance with English words as can by no means be obtained from the study of English alone.
- 2. A strict observance is made of the idioms of the language. Roman forms of thought are examined in order to make a comparison with the idioms that are peculiarly English. In no way can a student better see the beauty and strength of his own language and be inspired with a proper regard for his mother tongue. A student never knows that his own language contains idiomatic expressions until he has studied some language other than his own.

On all suitable occasions, and in the reading of Latin texts, especial care is taken to form an acquaintance with the customs, habits and literature of the Roman people. Roman history is thus brought nearer to the student through the medium of a knowledge of Roman thought and speech. Accuracy of pronunciation and the mastery of Latin quantity is insisted upon. The systematic study of prosody begins with the reading of Latin verse. The time allotted in the course to this study is five hours per week for two years. It is confidently believed that under proper linguistic methods, the time is sufficient to gain a working knowledge of the language; to read such texts as will render students proficient in teaching elementary Latin; to form within them some taste for further study, and secure to them some of the culture and refinement which are the natural concomitants of classical study. This work is done to the end that proper methods may be developed.

HISTORY.

History, as well as geography, is largely a culture study. As geographical teaching is building up in the pupil's mind vivid notions of the earth as the *home* of the human family, so historic teaching is building vivid concepts of the *deeds* of the human family; not only deeds in reference to time and place, but in relation to each other, and as a great whole, involving all human action. The study of geography and history are very closely related. They are a study of man in his home moving toward his destiny.

That those who are preparing to teach may receive information, power and culture, and be imbued with the right spirit and notion of presenting this great subject to children, the course pursued by them is substantially the same as that which they should teach, only it is more comprehensive.

The work outlined for the school is as follows:

- 1. A course of juvenile historic readings of different countries, especially the United States and England.
- 2. A methodic and comprehensive course in United States history.
- 3. A course in general history, such as will develop the relations of the different races of the human family, such as will show its progress in civilization, and such as will reveal the great law of *inner connection*, which is in and among all things.

The school is well prepared to do this work:

- 1. It has a rich library of juvenile historic literature, an excellent library of United States history, and a very creditable selection of general histories.
- 2. It has historical charts, maps and reference books and relics, which add to the interest of the subject.
- 3. As a rule the laboratory plan is followed, known as the "Seminary Method." The student is put in possession of sufficient material or data by which he can work out the subject in the library. The result is an accumulation of knowledge, development of power, and culture.

READING AND PHYSICAL CULTURE.

READING.

To be a good reader is an accomplishment. To know how to read, to love to read, and to read is fundamental to an education. The thoughts, the sayings, the aspirations, the wisdom of the race are a legacy bequeathed us. If we read, it is ours.

During the junior year the study of reading is for the following purposes:

- I. To present a psychological basis for all the elements of expression. This is accomplished by the four successive steps as presented in the reader used: first, by a recognition of the images as represented by the group of words. The literature used is vividly descriptive. Second, by arousing the imagination, and by the association of experiences related to those portraved on the page. In this manner the emotions aid the reader to catch the spirit of the selection read. The voice becomes responsive and well modulated. Third, by making an occasion for the expression of convictions. Literature didactic and argumentative in style gives the opportunity. The reader must effectually convince his listeners; he so becomes conscious of new power, magnetism, and a realization of his possibilities. Fourth, by intensifying the above mental process, the reader gains in facility of expression, and in abandonment.
- 2. To establish criteria of vocal expression. For every thought action there is a corresponding vocal utter-

ance. To know this correspondence would enable the teacher to aid the pupil to discover correct thought relation and so to make progress in reading; e. g., seeing the relation of modifiers to the principal statement, results in phrasing, showing contrasts, results in emphasis, seeing images expressed by a number of words, results in grouping, as distinguished from the mechanical pronunciation of single words, thinking collaterally results in pauses. So these voice forms serve as apparatus for securing a clearer understanding of the text, and for adjusting the vocal utterance to these mental processes.

- 3. To develop the power of concentration. To see the relation of the parts to the whole is necessary for adequate vocal expression. To do this requires close application and action of the will.
- 4. To aid the student to experience literature. By the study of masterpieces of literary art, the emotions are aroused to sense the significance of the lines. Occasions are offered for the interpretation of the drama; intelligent and constructive criticisms are given by the class.

During the senior year the above purposes are more fully realized by the class reading. Methods of teaching are presented, applicable to the grades and the high school.

The following theory gives suggestion of the nature of the work in methods.

a. Select material for class work with particular regard to the stage of development of the child. The race history is reproduced in the child. Provide for his tendencies by wise choice of literature.

- b. Assist pupil to realize that reading is thinking, that hearing to read is simply discovering the functions of words. Oral reading is adjusting the vocal organs to the mental processes.
- c. Provide for a critical examination of the vocabulary used in the text.
- d. Teach the forms of vocal expression that correspond to certain thought processes; these to be used as criterions of formal criticism.
- e. Develop the whole subject of reading according to the psychological development of expression studied in the junior year.

The teaching of children is done in the reading class to aid the student to solve the difficulties peculiar to each grade. During the senior year the entire work of the training school is presented to the students by committees reporting on theory and course, methods, visible results and possible resources. This enables the student to see the whole plan and catch the full significance of the requirements for the excellent teaching of reading. In this way the pedagogy of reading is worked out by observation and personal experience, and the investigation of definite reading problems, rather than by lectures and theory formally presented.

The elective class in reading take up the study of vocal interpretation. The aim is to develop the student's appreciation of the art side of reading. Recitals occur throughout the year for the production of finished work.

The literary societies offer students aspiring to excellence in these lines special advantages. The senior class play is of the character that allows individuals to demonstrate all the ability acquired by previous study in literary lines.

PHYSICAL CULTURE.

The exercises for physical training are based upon the following principles:

- 1. The vitality of the centers determines the condition of all the other parts. The vital organs are made to perform their functions more normally by exercises that directly affect them.
- 2. Attitudes of the body in harmony with the law of gravitation are secured by developing the sense of correct relationship between the parts of the organism. The poising exercises, the harmony movements, and rhythmic motions of the entire body, aid to secure this equilibrium.
- 3. Perfect freedom of the articulations results in economy of the force used for action. Structure demands release from muscular tension; the relaxing exercises aid in securing this.
- 4. The supply of proper nutrition, combined with muscular activity, results in physical strength and symmetry. To this end, games and out-door sports are practiced; also exercises with the dumb-bells, wands, pulleys, free gymnastics and Indian clubs.
- 5. The spontaneous response of the voice and the body to our thoughts and feelings is the highest mode of their manifestation. Gesture is the muscular response to the various mental states. The above exercises serve as a preparation for the perfect co-ordination of mind and

body. Further training is gained by the expression of mental states by body alone. Mental stimulus is provided by the use of dramatic literature.

Seniors teach the classes in physical culture throughout the grades. Exercises based upon the above principles are given with talks on hygiene, exercise, clothing and related subjects, games and sports forming part of the course.

The time has come for excellence in physical as well as mental skill. Habits of recreation will be followed later in life more than any system of gymnastics. For this reason, much emphasis is placed upon the forming of such habits. A Girls' Field Day gives occasion for the demonstration of this spirit. Basket-ball, tennis, golf, tether-tennis, quoits, military drill, battle-ball, croquet, ball throwing, hoop rolling, target shooting, archery, class relay, nail driving and Indian club swinging and other sports are the events of the day. A sterling silver loving cup awaits the winning class. A splendid spirit of enthusiasm is thus aroused.

CIVICS.

Realizing the importance of intelligent citizenship and the necessity of clear views of our social and political relations, much stress is laid upon this branch of study. From fifteen to twenty weeks are devoted to a careful study of the subjoined topics: The nature, theory and necessity of government. The rights, obligations and duties of citizenship. The distinctions among the several forms of government. Republic defined, and the distribu-

tion of the powers in our republic. The study of these departments is national, state, county and local government. The relation of the citizen to each grade of government of which he is subject. The relation of the states to each other and to the general government. The history of the formation of our government and the adoption of the constitution. A careful analysis of the text of the constitution. Composition of each house of congress, qualifications for membership, apportionment, mode of selecting, term of office, salary, etc. The officers, committees and rules of each house. The powers and limitations of congress. The executive and several departments of statetreasury, war, navy, interior, postoffice, attorney general, state and agriculture. The subdivisions and duties of each department. The eligibility, nomination and manner of election of president and vice president. The term of office, salary, power and duties of each. The law of presidential succession and impeachment. The constitution of the federal courts-supreme, circuit and district, claims and commissions, with officers of each. Distinction between original and appellate jurisdiction. Distinction between federal and state courts. Congressional control of territories, districts and other federal lands. Formation of new states. Personal rights guaranteed by the constitution

Lectures and lessons on the following topics of the school law of Colorado: The school district, classes, officers, their election and duties. The sources of revenue for the school fund. Composition and duties of the state board of land commissioners and the state board of edu-

cation. Relation of the state and county superintendents to the schools of the state. The location, purpose and maintenance of the several state schools of higher and professional education. The qualifications and duties of teachers in the public schools of the state; the branches to be taught, text-books, school blanks and reports; and school year, school month, school day and public holidays.

NORMAL DRAWING COURSE.

TWO YEARS.

For the purpose of those desiring to fill positions as supervisors of drawing, a Normal drawing course is given. The course of study will be drawing in light and shade in charcoal and ink from still-life, casts and life, clay modeling, from ornament, antique and life; free-hand perspective and sketching, design and composition as applied to book covers, surface patterns and borders. Composition as applied in line, light and dark, color and landscape. Water color from still-life and landscape. Instrumental drawing which covers the principles of common working drawings, both architectural and mechanical. Chalk modeling and methods of drawing.

Psychology—See Junior year.

English and Literature—See Junior and Senior year. History of Art and Philosophy of Education—See

Senior year.

Teaching in Model School.

REQUIRED DRAWING.

The required work for use of grade teachers in elementary and secondary schools. It is divided into three inter-related lines—representative, decorative and constructive.

OUTLINE OF WORK.

Light and shade drawing in pencil, charcoal and ink, from still-life, ornament, antique and life.

Perspective—Lessons and lectures on freehand and instrumental perspective and sketches required illustrating principles.

Designs—Decorative and applied design composition as applied in line, light and dark, color and landscape.

Water color — Still-life and landscape chalk modeling.

Blackboard sketching—Quick work for illustration. Clay modeling—Casts and antique.

ELECTIVE.

A course for students who desire to do advanced work. The aim is to teach true art according to the highest ideals with latest and most approved methods. The course is as follows: Drawing from still-life, casts, antique, head from life and life figure.

Perspective and clay modeling.

Design and composition.

Painting in oil and water colors from still life, costume and life.

Illustration in pen and ink and wash.

DRAWING.

GRADE I.

Color—Teaching of standards, collecting examples and use of color in decorative arrangements.

Nature Study—Simple flowers, grasses, etc. Lead children to consider arrangement on sheet. Blackboard drawing and illustrative sketching from memory.

Object Drawing—From common flat objects or objects pertaining to a child's life.

Paper cutting and clay modeling. Correlation and picture study.

GRADE II.

Color—The review of standards and one tint and shade of each. Laying scales of six colors in three tones of each color.

Nature study of plants, insects, birds and animals.

Elementary Design—Arrangement of lines, spots and nature forms.

GRADE III.

Nature Study—Plants, simple sprays and simple landscape.

Object Drawing—Simple objects and composition in simple grouping.

Elementary Design—Teaching of line. Balance of proportion. Free arrangement of units suggested by flowers for borders or surfaces.

Historical Ornament—Study of Gothic ornament. Life Drawings—Drawings in mass of children.

GRADE IV.

See Grade III.

GRADE V.

Color—Review of color study and study dominant, analagous and complimentary harmony.

Nature Study—Drawing of pleasing arrangement within appropriate enclosing forms and application of it to book covers, etc.

Decorative Design—Application of original units in design. Applied design.

Historic Ornament. Egyptian.

Object Drawing. Pencil sketches of objects in group. Pottery making and decorating.

GRADE VI.

See Grade V.

GRADE VII.

Color—Review of work given in V and VI grade. Study of various harmonies.

Nature Study—Study of pleasing space divisions within enclosing geometric forms.

Object Drawing—Study of perspective principles. Light and shade drawings of groups.

Design and Composition—Principles of composition as applied in line, light and dark, and color, and to land-scape composition. Study of balance and rhythm, using abstract spots as elements of design.

Historic Ornament. Greek Architecture.

Constructive Design—For vase forms, candle-sticks, etc.

Life Drawing—From children in interesting attitudes.

GRADE VIII.

See Grade VII.

GRADE IX.

Color—Study of color harmony—nature study; study of plant growth and arrangement of drawing upon the paper.

Design—In one tone, study of balance and rhythm, using abstract spots as elements of design. Study of historic examples of design.

Object Drawing—Studies in pencil and pen and ink in groups. Shaded drawing in charcoal from still-life.

Constructive Design—Original designing of useful articles—comb, buckle, etc.

GRADE XI.

See Grade X.

HISTORY OF ART.

A course of lectures on the history of art and fine art principles will be given for seniors.

These lectures will occur once each week through one semester, and will aim chiefly to make students more familiar with the work of the great artists and to show the value of fine art to the teacher.

Picture making in school work, considerations on methods and courses of "form study and drawing" now in use, and a brief review of studio and office practice will form an interesting part of this course.

The well known principles of light and shade, color, projections and ornament will be demonstrated in the recitation room.

MUSIC.

COURSE OF WORK.

Every effort will be made to give students of this department the same thorough grounding in Music that they secure in English and other branches—not merely a theoretical but a practical knowledge of teaching to sing. To this end, a special feature of the training will be demonstrations of the child's voice by the director of the department, showing the various kinds of voice with attention to the peculiarities, quality, range and defects of each. This study will cover voices of all ages from the kindergarten to senior classes of the Normal department. The ability to treat voices in such a way as to conserve them and permit their best development is the first essential to a teacher of this art. The demonstrations will show what may properly be expected as to purity, power, endurance, flexibility, range and compass. As each defect appears, it will be dealt with and treated. These demonstrations thereby become a most valuable series of lessons in the art of teaching, as well as in the method of singing.

Skill in this work is attained only by those who make a special study of the child's voice at first hand and who then studiously compare the results of their own observations with those of other specialists qualified to speak. The director is well informed as to the best thought on this subject, having had fifteen years of successful experience in the work, and recently a course under Mr. Tomlins, acknowledged to be the authority on children's singing.

Further technical training of special teachers is outlined in the following course:

FIRST YEAR.

- 1. Sight Singing and Theory.
- 2. Musical History.
- 3. Harmony.
- 4. Psychology.

SECOND YEAR.

- I. Sight Singing and Theory.
- 2. Composition and Analysis.
- 3. Methods.
- 4. Philosophy of Education.

Note—In Composition and Analysis, hymn tunes, glees, madrigals, part songs, oratorio and opera choruses will be studied with reference to their harmonic content and musical form. Illustrations will be sung in order that students may have the effect and peculiar quality of each well impressed upon the consciousness.

Detail of work will more fully appear by reference to Course of Training School, which is also included in course for music supervisors. Persons taking this course will teach in Training School throughout the final year.

Lectures on the masters in Modern Music will be given each alternate Friday throughout the year, with

vocal and instrumental selections from their works and stereopticon illustrations of the people, places, and instruments related to each subject. The course will comprise the following: Lassus and Palestrina, Bach, Handel, Haydn, Mozart, Mendelssohn, Schumann, Schubert, Chopin, Rossini, Spohr, Beethoven, Wagner, Folk Songs.

These lectures will treat not only of the works from a musical standpoint, but also from that of an expression of the spirit of the times in which they were composed, and will endeavor to show that the development of the art was in response to a deepened consciousness and an enlarged appreciation of the meaning of life and the dignity of man.

A glee club is organized at the beginning of the year for the practice of glees and part songs, and is free to all students.

A chorus will be formed to study anthems, choruses of the standard oratorios, operas, etc. Students who are qualified to do so, will be allowed to become members.

A course in piano will be made accessible, by which as thorough a knowledge of the resources and literature of the instrument will be given, as the time at the student's disposal will permit. Musical playing is the desideratum and technical exercises are to be clearly adapted to this end. Good touch is an achievement possible to all persons. Thought and sentiment, the mind and heart, can be expressed by a variety of touch as great as is the variety of feelings which move the heart. The problem is to bring these feelings to expression, through the adjustment of

the muscular activity to the mechanism of the piano. Our teachers know how to do this.

Instruments and facilities for practice will be provided for those who desire them.

An equivalent in piano playing will be accepted for second year theory. Students will be allowed to pass out of any subject of this course by examination.

Diplomas will be given to all who satisfactorily complete the two years' course and give evidence of necessary teaching power, recommending them as directors of music in public schools.

To such persons as complete the first year's course, certificates will be granted, which will be a recommendation to teach as specialists in the primary and intermediate grades.

All Normal students are expected to take first year's course in sight singing and theory and one semester of second year in methods and to teach and observe the work in the Training School.

COURSE FOR TRAINING SCHOOL.

FIRST YEAR.

Songs and exercises from teacher's pattern. To produce the third and fifth of any key tone and their octaves. Accent and sign for the same. To sing and write exercises from memory. To point phrases on modulator after teacher's pattern. To indicate the same by manual signs. Primary and secondary forms.

The beat divided into halves; into quarters. Two-part exercises from manual signs. Ear exercises. Exercises sung to a given syllable.

Daily practice with manual signs and modulator.

Notation necessary to the foregoing.

SECOND YEAR.

The dominant chord. To sing every interval possible with the tones of the tonic and dominant chords. Songs and exercises sung, written, pointed from modulator, and indicated by manual signs, from memory. Two-part rounds. Exercises and songs beginning with half-beat tones. The beat-and-a-half tone. Two-part songs. Daily use of ear exercises, manual signs and modulator. Familiarize pupils with rhythm employing half-beat and quarter-beat tones.

THIRD YEAR.

The sub-dominant chord and all new intervals possible with tones of the same. Melodic resolution of tones. Motion of parts. Two-part singing. Simple dissonances. Sing, write, point, and indicate the half-and-two-quarters beat; the two-quarters-and-a-half beat. The three-quarters and quarter beat. The triplet. Given the key tone to recognize and write any exercise or song involving the foregoing elements. Ear exercises daily.

FOURTH YEAR.

Meaning of key and time signs. Ear exercises daily. Chromatic seconds. To reproduce easy songs from teacher's singing. Three and four-part rounds. Two-part songs. Transition to first remove. Given C to find any

key. To reproduce the modulator as far as four sharps and four flats. Part pulse dissonances. Daily use of modulator and manual signs.

FIFTH YEAR.

Daily use of ear exercises, modulator and manual signs. Quarter-beat rest. Syncopations. Chromatic tones taken by leaps. Sharp four and flat seven as chromatics. Voice leadings indicating transition. Chromatic resolution.

SIXTH YEAR.

Minor modes. Phrases, sections, periods, melodic cadence. Daily use of modulator, ear exercises and manual signs. Major, minor and diminished chords contrasted.

SEVENTH YEAR.

Write relative minor to a given major phrase or section and to sing the same. Three-part songs and exercises. The modulator by tone. To know the common chords of the major and minor mode, also the dominant seventh and supertonic seventh of both modes. Daily use of ear exercises and modulator.

EIGHTH YEAR.

Transitional modulation. Transposition. Rare divisions of time. Transitions of two and three removes. To determine the key in imperfect notation. Three-part songs and exercises. Daily use of ear exercises and modulator.

Note.—This outline is intended to give the natural order in which the elements of music are acquired and the

time necessary to their acquirement by the average pupil under good teaching. It is a guide to the teacher as to the order of presentation, however, rather than as to the time necessary. Technical exercises are to be incidental to singing.

HIGH SCHOOL.

Pupils who have had no previous training will have daily instruction during the first year in the Elements of Music, with special attention to the following items: Keyrelationship, tone quality, rhythm, simple forms, pronunciation, breath control, voice training, ear training, expression and notation.

Those who are prepared for it will be assigned to classes doing such advanced work as they may properly undertake. It is the intention to grade the work according to the needs of the student, offering advantages in music as advanced as their preparation may warrant.

MANUAL TRAINING.

PRINCIPLES UNDERLYING TOOL WORK.

- I. The value of tool work in the elementary school is educational; it is an expression of an impression—the realization of an idea in construction; it is incidentally useful in an economic sense.
- II. In tool work the children in the elementary school should make such things as are useful in *their* lives *now*; then the things they make are part of *their* lives; not the making of things that are ultimately useful.
- I. This word "useful" has been misapplied in tool work in the schools. It has been interpreted to mean "useful" from an economic standpoint.
- 2. Useful in tool work in the elementary school means to make something that touches the child's life now—gives interest—has educational value. The child may not be interested in this same object the least bit in a week, or month; but the making has served its purpose. The child has had the educational value growing out of thinking, designing, constructing and enjoying something that touches its life at the time. It may be that what he makes has also a permanent value, but this value is incidental. The more stress that is laid on permanent value, the more the economic or commercial side is emphasized.

- III. As soon as the doing of a particular kind or piece of work has become automatic, it has largely reached the limit of its educational value.
- IV. Tool work should be correlated with other subjects, as history, nature work, science, etc. This is when it has its highest educative value.
- V. The æsthetic in tool work should be correlated with the work the child does, in so far as it corresponds with his development and interests. Excellent results grow out of a proper correlation of the took work department with the art department.

*COURSE OF WORK.

JUNIOR YEAR.

Time: Two forty-five-minute periods per week.

The course for those taking the required manual training work includes class work as follows:

The underlying principles of manual training are considered from the historical and psychological points of view, followed by practical work involving the use of various tools and materials in working out a series of objects in accordance with the underlying principles of the system. Models are used during the first semester, that the pupils may in the shortest space of time possible become acquainted with a variety of tools and acquire skill in their manipulation. The second semester is devoted to

^{*}For full particulars in this department send for Manual Training Bulletin.

working out new ideas along the lines of constructive and ornamental manual training. The work is mainly manual, preparatory to taking up the elective manual training in the senior year.

ELECTIVE MANUAL TRAINING.

Time: Five forty-five-minute periods per week.

This course is designed for students who desire to specialize and to prepare for teaching manual training. It is advised that it be taken as the elective work of the senior year. The required work of the junior year makes a good foundation for specialization. Successful practice in the training department is requisite to the completion of the special course.

In general, the course is as follows: Methods in teaching manual training, relation of teacher to work, plans, presentation, execution, correlation, invention, etc. Discussion of materials, means and forms used in manual training, practical limitations of the work, adaptation to conditions, equipment, cost, etc.

The practical work includes work suitable for all grades: Basketry, including the making of trays, baskets, mats and plates of various forms of raphia, hemp and rattan; constructive work in pasteboard, weaving with various materials, yarn, strips of cloth, etc., on loom made by pupils; bent iron, including exercises in the use of stove-pipe iron and more expensive Venetian iron; constructive work in wood, preparatory to decoration, with carving and pyrography; wood carving used in

decoration of objects constructed, as chairs, tabourets, jardiniere stands, boxes, book-cases, etc.; pyrographic decoration in wood and leather, as picture frames, book racks, boxes, chairs, sofa pillows, shopping bags, etc.

Practice in designing, historic ornament.

Preparation of materials, care of tools, working drawings, planning models, designing, uses of ornament with a view of suiting the decoration to the object to be decorated.

CORRELATED TOOL WORK—NORMAL DEPARTMENT.

As the student sees the need of apparatus which he can use in some other department, he uses the Sloyd laboratory for its construction. This gives rise to considerable correlated work, which changes from year to year, but may consist of—

IN THE LIBRARY DEPARTMENT.

Apparatus of various kinds, T square, triangle, drawing board, sewing bench, card catalogue box.

ART DEPARTMENT.

Drawing board, easel, stretcher, pallette, molding board, clay modeling tools and board.

PHYSICS.

Apparatus will be made as needed in the classes in physics and chemistry.

DOMESTIC ECONOMY.

Knife, cleaning box, bread board, kneading board, cake stand, wooden spoon, meat board, knife box, towel rack, spoon rack, salt box.

SEWING.

Ironing board, cutting board.

BIOLOGY.

Dissecting needles, insect mounts, setting frame, flower press.

MATHEMATICS.

- a. Solid: Cube rectangular prism, rectangular pyramid.
- b. Dissected—Parallelogram, triangular circle, pythagorean blocks.

DOMESTIC SCIENCE.

FIRST YEAR.

Biology-

I.—Botany.

- a. This includes the study of the classification of vegetables, herbs, roots, spices and condiments.
- b. Mounted specimens of herbs, leaves, spices and roots used in cooking which can be obtained will be made and bound in folios for the student's future use in teaching.

c. The aim is to train students to observe the plants, trees and flowers about them, to recognize familiar and edible plants wherever they may see them.

II. Zoology.

a. It is taken up in reference to Domestic Science or vegetation, treating especially of injurious insects to plants, the crustaceans, birds, fish, wild and domestic animals used for food by man.

III. Bacteriology.

I. Yeast.

- a. Preparation and use of yeast plant.
- b. Its use, form, structure, and mode of growth.
- Experiments in growing yeast under various conditions necessary for its best development.
- d. The food of the yeast plant, its products—carbon dioxide, alcohol, etc.
- e. Functions of yeast in bread making.

2. Moulds.

- a. Structure of common moulds.
- Practical studies of their development and dissemination of spores.
- Means of preventing growth of moulds by sterilization.
- d. Edible and poisonous fungi, or mushrooms.

3. Bacteria.

- a. Their structure, mode of growth, development and reproduction.
- b. Conditions of growth; dissemination, changes produced in food by bacteria.
- c. Useful bacteria; deleterious effect of some bacteria.
- d. Bacteria in Arts.

Chemistry-

I. General Chemistry.

- a. It is required of all pupils taking this course that they may be able to understand the chemical action which takes place in effect of heat upon food. If they have this knowledge, they are able to grasp the reasons underlying many of the methods of cleaning.
- b. The power to analyze substances in general chemistry not only gives the pupils ability to analyze baking powders, etc., but trains them in habits of neatness and exactness which they could not acquire in the same time with any other study.

II. Organic Chemistry.

a. This treats of the carbon compounds, such as alcohol, starches, sugar, turpentine, etc. This gives practical knowledge of

substances used as food and brings organic chemistry into practical use.

Physics-

- I. Physics is required of all taking this work, because it gives a clear understanding of nature's phenomena and the laws that govern them.
- 2. Widens the pupils' mental vision, forcing them to think of the great and universal laws which must be obeyed, and, if obeyed, can be used as a power for man.
- It gives the pupil an understanding of the mechanism of electric utensils, ventilation, heating and lighting.

English-

Regular Junior work.

Psychology-

Regular Junior work.

Cooking-

Four periods a week for thirty-six weeks.

- 1. First principles of cooking.
 - a. This includes the study of the five food principles (protein, fats, carbohydrates, mineral salts and water.)
 - b. Their action when treated with heat.
 - c. The best methods of cooking.

- d. Cooking of simple foods, such as cereals, soups, bread, rolls, desserts, cakes, etc.
- e. The combinations of certain foods to be most nutritious, digestible and economical.
- f. Simple menus for breakfast, luncheons and dinners.
- g. Cooking and serving of meals.
- 2. Simple experiments in foods.
 - a. The effect of different degrees of heat on food.
 - b. The action of acids.
 - c. The proportion of thickening needed for the different uses, as sauces, gravies, etc.
- 3. Invalid Cookery.
 - a. The diets of hospitals are given and courses of work planned in each.

 Talks on methods of work in a hospital diet kitchen.
 - b. The classes of foods for patients studied, such as,

Beef extracts, teas, etc.

And and stimulating drinks.

Gruels and mushes, etc.

c. Preparation of trays for invalids.

Sewing-

Two hours per week—thirty-six weeks.

- Twenty-five models involving all the principles of simple hand-sewing. Practice on bleached muslin.
- b. Matching stripes, hemming, patching and darning are given until thoroughly mastered.
- c. The study of textiles.
 - 1. History, growth and manufacture.
 - Patterns of underwear are drafted and garments made, thus combining hand and machine sewing.

Mechanical Drawing—

The object of this work is to make the pupils familiar with the technical drawings, tables, etc., and to enable them to draw an intelligible diagram that can be used by a carpenter, builder or tinsmith if necessary.

Physical Culture—

Regular Junior work.

SECOND YEAR.

Houshold Science-

One hour per week—thirty-six weeks.

I. The study of the development of homes from huts, and showing how what we now enjoy was developed as an outgrowth from the experience of others, or where we fall back instead of progressing.

- II. The history of the development of furniture. The study of beautiful shapes, etc.
- III. Discussion of furnishing and decoration of modern houses—apartments, etc.

Chemistry-

- I. Organic Chemistry continued.
- II. Dietaries:
 - a. Study of the composition of man's body.
 - b. Daily waste and repair.
 - c. Need of foods; kind and proportion required.
 - d. The composition of various food material, digestibility and desirable combinations of each.
 - e. The calculation of dietaries and the comparison of the dietaries for people engaged in different occupations and of different races.

Emergencies-

- 1. Home nursing.
 - a. Care of the sick room—nurse's duties.
 - b. Preparation of food.
 - c. Training in making bed and poultices.
 - d. Symptoms of special diseases and their care.
- 2. Bandaging.
 - a. Kind of bandage.
 - b. Methods of bandaging burns, cuts, sprains, bruises, etc.

- 3. Treatment in case of Emergencies:
 - a. Treatment of cuts, burns, scalds.
 - b. Fractures, temporary relief and modes of transporting in case of accident.
 - c. Treatment of croup, convulsions, fainting, sunstroke or frostbite.

Philosophy of Education—

Regular Senior work.

Mother Play-

See Junior work—Normal Kindergarten Course.

English-

Regular Senior work.

Cooking-

- I. Advanced work.
 - 1. Canning and preserving.
 - 2. Chafing dish course.
 - 3. Fancy cookery.
 - a. Fancy roasts.
 - b. Fancy desserts.
 - c. Boning birds, etc.
 - 4. Menus for full course dinners, etc.

II. Practice work.

- a. Cooking in Eighth Grade.
- b. Assisting in Junior work.
- c. Outside work.

III. Invalid Cookery.

Sewing-

Two periods per week—thirty-six weeks.

I. Third Division:

- a. Drafting French waist and thin dress skirt.
- b. Study of relation of form and color to that of the individual.
- c. Making of thin lawn or organdy dress from patterns drafted.
- d. Making of lined dress.

Laundry Work-

- a. History of Laundry Work.
- b. Necessity of good work; neatness, system, proper methods; result of lack of these.
- c. Removing of stains from clothing.
- d. Methods of cleaning floors, brooms, windows, etc.
- e. Proper care of kitchen and laundry supplies.

MODERN LANGUAGES.

The object of this department is to give a reading knowledge of the most important modern languages. Conversation is introduced rather with the purpose of fixing in the mind idioms and points of grammar than with the hope of teaching the fluent use of the language in speech. To this end, the following courses or their equivalents are offered.

GERMAN.

First Year-First Semester-

Elementary. Thomas' German Grammar; Guerber's Marchen und Erzahlungen, Vols. I and II.

First Year—Second Semester—

Continuation of Thomas' German Grammar; translation of Hoher als die Kirche, Eingeschneit, Immensee, Germelshausen, and L'Arrabbiata.

Second Year-First Semester-

Reading of Brigitta, Der Fluch der Schonheit, Der Neffe als Onkel; Prose composition.

Second Year—Second Semester—

Die Journalisten, Gustav Adolfs Page, and Die Freiherren von Gemperlein; Prose composition.

Third Year—First Semester—

Marie Stuart and Soll und Haben; Prose composition and paraphrasing.

Third Year-Second Semester-

Minna von Bornhelm and Hermann und Dorothea; Prose composition and paraphrasing.

FOURTH YEAR.

History of German Literature throughout the year, with lectures and reading.

FRENCH.

ELECTIVE.

First Year—First Semester—
Frazer and Squair's French Grammar: 1' 4

Frazer and Squair's French Grammar; L'Abbe Constantin.

First Year—Second Semester—

Colomba, and Michael Strogoff; Prose composition.

Second Year—First Semester—

Modern French Comedies; Prose composition and paraphrasing.

Second Year—Second Semester—

Tartuffe, Polyeucte and Athalie; Prose composition.

Third Year—First Semester— Eighteenth Century Authors.

Third Year—Second Semester— Nineteenth Century Authors.

SPANISH.

ELECTIVE.

First Year-First Semester-

Edgren's Spanish Grammar; Worman's First Spanish Book. Matzke's Spanish Readings.

First Year—Second Semester—

El Final de Norma, and El Capitan Veneno; Prose composition.

Second Year-First Semester-

Padre Isla's Gil Blas, La Familia de Alvereda and Electra; Prose composition.

Second Year—Second Semester—

Dona Perfecta and Jose; Prose composition.

THIRD YEAR.

History of Spanish Literature with lectures and reading throughout the year.

ITALIAN.

A class in Italian may be organized if there is a sufficient number of applicants.

Training School

and
Child Study Department

FACULTY OF TRAINING SCHOOL.

Z. X. SNYDER, Ph. D., President.

T. R. Croswell, Ph. D., Superintendent of Training School.

ROYAL W. BULLOCK, Principal of High School.

ELIZA GEORGE KLEINSORGE, Supervisor Grammar Grade.

ELIZABETH H. KENDAL, Pd. M., Supervisor Grammar Grade.

ELEANOR PHILLIPS, Pd. M., Supervisor Primary Grade.
BELLA B. SIBLEY, Pd. B., Supervisor Primary Grade.
E. MAUD CANNELL, Supervisor Kindergarten.

ASSOCIATE SUPERVISORS.

JAMES H. HAYS, M. A., Latin and History.

Louise Hannum, Ph. D., Literature and English.

ARTHUR E. BEARDSLEY, M. S., Biology and Nature Study.

Douglas D. Hugh, A. M., Physiology.

Anna M. Heilman, Reading and Physical Culture. Harriet Day, Art.

KATHERINE CLUTE, Domestic Science.

Samuel M. Hadden, Pd. B., Manual Work, Sloyd.

FRANK L. ABBOTT, B. S., Physical Science.

GRACE H. SPROULL, Ph. B., History, Literature.

JOHN T. LISTER, A. B., Modern Languages.

DAVID L. ARNOLD, A. M., Mathematics.

W. E. STIFFEY, Music.

GENERAL STATEMENT.

"The Training School is the center of life and interest in a Modern Normal School." As the teacher exists for the child so do the departments of the Normal School primarily exist for the sake of the independent culture of the teacher in training, however desirable that may be, but to equip her to play her part to the best advantage in the Training School.

Like all altruistic positions this means a widening, rather than a narrowing of the teacher's possibilities. Her aim becomes not merely to develop the human in her own breast, but to develop the large and universal humanity as she finds it in the hearts of many. The reflex effects of this objective attitude on her own character is, perhaps, more powerful than are the results of any mere subjective aspiration.

The keynote of such a school is thus one of co-operation among both teachers and pupils. A mutual aim is set up and a combined production results, in which each contributes to the extent of his ability. Not the equality of assigned tasks, but a construction, whether mental, social, or material, which calls for differences of effort, and natural degrees of appreciation. The increasing socialization of the school does not tend to any leveling up or leveling down. The rule is rather—whoever is strong among us, let him help the others.

The various ways in which this is carried out are indicated in the Training School bulletin. Owing to unavoidable limits of space, emphasis is laid on certain features, which, not always because they are better, but rather because they are not so familiar, have seemed to require greater elaboration. In order to make up for this to some degree, there have been appended brief outlines in the form of courses of study. As, however, will be readily gathered, the school does not proceed from the standpoint of a course of study to which the children and teachers constantly subject themselves, but rather from the standpoint of the persons composing the school, by whom the course of study is being constantly formed and reconstructed, as blood is constantly being changed within the tissues of a living animal. It is only in the case of children without initiative, and in the case of teachers without initiative or constructive capacity, that the course of study is injected in a less plastic form. A course of study is a plan of life, and those who are to live the life should at least share in the making of the plan.

While the first traction of the Training School is to enable the teacher in training to work out successful results in the actual present conditions of the school, and not to imagine that she is in some other school whether better or worse, the next most important function is to enable her to see the problems which lie before her when she leaves her present environment and gets, as the phrase goes, "a school of her own." The conditions she will there meet are necessarily different from those she finds in the Training School, conditions too which it would be

idle to attempt to imitate. What remains the same is always the spirit, which if she has divined it under the more transparent letters of the present aided and protected life, she will be strong to apply in whatever future she may be placed.

At the same time efforts are not spared in the seminars and in private conferences to present in a comparative manner the conditions the teacher will need to meet, and to advise her as to hopeful methods of procedure. Once a week, too, there are invited to the school successful educators, school superintendents, High School principals, in whose addresses the students are able to see reflected the educational ideas and conditions to be found in every region of the State. Such efforts are, however, subordinate to the main notion, which never regards the teacher as a cog in a wheel, unfitted for any machine for which she may have one cog too many or too few, but which conceives her rather as a self-active, fraternal personality, organic, vital, capable of self-adjustment, but still more capable of progress and of growth.

THE TEACHER IN TRAINING.

From one point of view the Normal School exists for the sake of the teacher in training. Her needs as a teacher are, however, not opposite, but simply the complement of the needs of the children.

The supreme aim of the ideal Training School is to show the teacher the organic unity that exists between herself and her pupils, so that she may feel and realize the feeling, that her life is theirs, and theirs in no less degree is hers; and that whatsoever she does, whether she eat or drink, she does all to the glory of development.

The road to such a result begins on somewhat stony ground. By the beginner all teaching is divided into two parts—authority, and other things. In this respect she repeats the history of the race of teachers, and for that part, of civilized humanity itself. That she should be found at this stage of development is naturally to be expected.

The training school does not aim to disabuse her mind of this initial importance of authority. It rather emphasizes and reinforces it. Good or at least fair results have been obtained when everything in the school life of the child has been mapped out for him by presumably wiser heads than his, when obedience is regarded as the crowning virtue of the school, if not of life, and where liberty and its organization is left to the play-ground and the home.

Where, however, the school essays a large life, the problem is not simply to throw authority overboard, but to find its most advantageous limitations, to discover how in a kingdom of grace the law may be fulfilled as well as superseded. Helpful in this respect is the formula so well exploited by Bosanguet: "Use authority only to prevent hindrances." Honestly applied this means hindrances not only in the mind of the teacher but also in the minds of as many as possible of the pupils. They must therefore feel that there is something that is worth while going on in every recitation. The individual who hinders this may not feel at the moment its worth to himself. but the facts should be so that the teacher could easily show him that others of his comrades realize its worth, and sympathize with the teacher's effort to protect their best interests.

When no pupil feels that what is going on is really worth while, the disturber becomes a sort of revolutionary savior not agreeable to the teacher but perhaps not without benefit to the school. A desirable feeling is easily obtained in a school that is normal; in a reform school or penitentiary it might be different in which case the hindrance to be stopped or prevented is to be regarded as applying to what is going on outside of the school in the normal processes of society.

If something is to go on that is felt to be worth while by the children, the aim or end as far as it exists or can be got to exist in their minds is the first consideration. This is both more practical and more difficult than any statement of aim as it exists in the mind of the

teacher. Such an aim may be ever so soaring but yet entirely fail to work. A thought by which the teacher is asked to test herself is this: "At any time during the course of the recitation whatever the pupil may be doing if I could get a complete answer or look into his heart, would it yield me the aim as I have it written in my plan?" How often to the question, "What are you doing this for?" would one get the answer, "I don't know?"

If, however, the teacher in training believes, to such a question the answer would be, "Because I have to," "Because the teacher told me to," "Because I want to pass," she is encouraged to put these aims down in her plan, as the real aims which the children are working for. Generally, in such cases it is not long before the teacher is able to invent an aim which is more satisfactory both to herself and to the children.

From this standpoint it is but a step to the further one where the children are regarded as capable of inventing aims for themselves. This is no doubt possible to a limited extent in work which is outlined by the teacher, in which the children may invent details. But there is something liberating in the consciousness of what is thought or felt to be a whole activity—something that is up to the full level of the planning and organizing power of the individual, and which if he has any capacity for will at all he must invent for himself. This is not a power for which a genius is necessary, but something which should be the possession of every citizen of America. Volition and the constructive function is too much ne-

glected even in our schools, better as they are in this respect than those of Germany or France at least.

Further than the immediate work and observation in the training school the teacher has the more mediate function of preparing and improving herself by reading and reflection, and by comparison and co-operation with others who work with the children. In the first place the teachers in every grade are not held to be severally responsible for merely their own individual work, but each is responsible for the whole grade. To this end she must find out, by observation and in meetings held for that purpose, what is being done in the whole grade. Team-work, as on the football field, is thought to be the most effective both for teacher and for pupils. If one person fumbles the ball another carries it on.

In order that this may be carried out with the fullest degree of voluntary responsibility an interesting resolution has been adopted by all but a very small minority of the teachers in training. They have agreed that their standing in the department of pedagogy shall be partly determined by their own judgment of each other's work. To this end a written test is called for at such times as they think best, in which each teacher writes out an account of her progress in as far as she can ascribe it in any significant way to her fellow teachers. These recommendations or appreciations are to be collected and classified by a committee elected from their own number, with the Superintendent of the Training School, and a report to be made upon the standing, necessarily not of a mathematical character, of each teacher. Each teacher

thus feels that the work of helping other teachers, co-operating with her, is part of her duty in the school.

It is also part of her opportunity. As a piece of training it provides not only that she shall be equipped for some subordinate position in the school, able to get along with her children, although always under the direction of someone else, but that she shall get some chance of training for the higher positions also, where a responsibility will devolve upon her as principal or superintendent, not only to judge as to the merits of her assistants but to tactfully yet effectively help them to improve. An increase of judgment, mercy, and faith, is not undesirable in such a relationship.

As a consequence of this attitude the pedagogical seminars are partly given over to the individuals either singly, or as is more common, in groups, who believe they have something to say or to discuss, gained either from reading or experience, which will be new and helpful to other members of the class.

A bit of real life, an act or a thing has probably in it more principles than are able to be taken out of it or be defined. And yet it is found helpful by most thinkers and workers to formulate what seems of a general character. It is with this view that I append as a summary the following propositions, the last of which is no less important than the first.

PEDAGOGICAL SUGGESTIONS.

1. Every child is an end in itself; it does not exist for the sake of gaining knowledge, power or skill, these things exist for it.

- 2. Planning with the children is better than planning for them.
- 3. Other people than those actually in the school room make plans for the life of the school, the parents, the trustees, the taxpayers, great educators in this country and abroad. They have a right to do this in proportion as they are willing to participate in or in proportion as their lives are affected materially or spiritually by the life of the school, but those whose lives are affected most should be permitted to have the first opportunity in the making of the plans. In as far as there is real life in the school room those who live the life should make the plans.
- 4. Present Need—That the children be given an opportunity to feel that they are the causes of a larger number of the events which fill their lives.
- 5. The children should ask a large if not the larger part of the questions. Applied to science this means that the children should invent many of the experiments. A real experiment is a question asked of nature. The person who makes it expects to discover something. In your last science lesson how many experiments did your children invent?
- 6. The individual who "recites" or speaks or acts in the presence of a class or group, in a large number of cases should feel that he is a social organ. This is not attained when the individual feels that he is merely "expressing" himself without reference to others. Such self expression tends to conceit and rivalry, or timidity or backwardness on the part of those who do not assert themselves. It trains "showing off," "self conscious-

ness," and pride of knowledge. In your last lesson how often did you find any child addressing any one but yourself? Was he telling you anything which he supposed you did not know? If not, what good did he suppose he was doing you? What good did he suppose he was doing any one else?

- 7. In a recitation a child feels that he is a social organ when he finds that he is speaking or acting for other people. This may arise when he says something which he has reason to believe other people want or need to hear, or when he says for others something that they wish to have said. The game of "Find the Button" when the children clap softly or loudly as one of their number draws nearer the object of his search, illustrates the feeling of being a social organ. The whole class is interested in the action of the individual whom they have chosen to find the button because they feel that they are largely the cause of his failure or success. All recitations should have in them an element of "Find the Button."
- 8. A child needs to be associated with other children in a group in order to feel his influence and in order to obtain natural influences from others. The size of the group should be proportioned to the child's ability to exert influences or feel himself a cause in the social field. This is necessary from the standpoint of fatigue as well as from that of effective work. The size of this group will be best obtained by allowing the children to form it for themselves. Such a group will last only as long as will be necessary to carry out the work for which it was organized.

- 9. In order to feel themselves causes, the children must make the whole of, or part of the plans.
- 10. In as far as the children make the plans, the teacher's business is to help, both in the designing of them and the carrying of them out. The teacher who stands off for fear of destroying the originality of the children, is really destroying their effectiveness.
- The feasibility of the plan is the first consideration. This must be measured by actual conditions as found in the lives of the children. When proposed by the children the teacher may judge the plan not worthy of being carried out. She may not think the work proposed sufficiently educative. She should express this view freely to the children, yet not so dogmatically as to crush expression on their part. In the discussion the children may convince her that the work is worth while. If not, however, she should be free to exercise the right of veto. A broadly educated teacher will probably find it rarely necessary to exercise this right.
- 12. It is better, and felt to be better by the children, when something is accomplished, even under compulsion, gentle or otherwise, than when nothing or even nothing of consequence is accomplished.



PARENTS' MEETINGS.

The connection of the home is from many standpoints one of the most desirable features of a modern school. A graduate of a Normal School of nine years' training, once said to me: "I do not now teach as well as I know how, but only as well as they'll let me." This antagonism between the school and the community of which it is a part is most unfortunate and devitalizing for both sides. If the teacher is to organize her school socially or even for the benefit of society, she must carry along contemporaneously a social organization of the community in so far as it touches the school. She must awaken the desires of the fathers and mothers, and of others interested in education, for better things in the school. It is a law of life that one has more interest in persons or even in inanimate things in proportion as he does something for them. The teacher should encourage even small aids, and these should be from the start of a moral and psychological character rather than always confined to the material side. The teacher might well meet the hurtful meddling on the part of some parents and trustees by previously inviting their helpful criticism of, and co-operation in, her working plans. Such a teacher might well say, "I teach as well as I am encouraged by all my friends."

For the purpose of awakening an interest in the Training School, parents' meetings are held several times a year at which a program is offered. Stereopticon slides are shown, explaining and illustrating the work of the school, and a reception is held, during which the parents meet the teachers in training, and discuss the progress of the children under their charge. These meetings have proved helpful, not only in interesting the parents, but have served as a sort of review, in which the school finds itself portrayed, and thus rises to a higher consciousness of its value and its work.

GAINING THE IDEAL.

In the beginning of the Junior year the students are formed into small groups, perhaps ten in a group, and assigned to the critic teachers for the observation of one, and in special cases two, recitations each week and its thorough criticism under the direction of the critic teacher.

These discussions involve a criticism of the following points:

I.—The Subject Matter—

- I. Its value.
- 2. Its fitness for children of this age.

II.—Correlation—

- I. Does the teacher utilize points of preceding recitations?
- 2. Does he utilize points used in other studies?

III.—Method—

- I. Aim.
 - a. Form.
 - b. Content.
- 2. Preparation of pupils' minds.
 - a. Relevant and irrelevant questions.
- 3. Presentation of the new.
 - a. Narrated.
 - b. Read.
 - c. Developed or questioned.
 - (a). Forms of questions.
 - (b). Content of questions.
 - (c). Sequence of questions.
- 4. Devices.
- 5. Drills.
- 6. Summary.

IV .- Results.

V.—Government of Class.

VI.—Manner of the Teacher.

VII.—Summary of the Bad Points.

VIII .- Summary of the Good Points.

These groups observe and criticise the work of the Seniors, which should be good enough to be called "model." The critic teachers and the superintendent conduct "model" recitations in the presence of the different groups. The criticism does not degenerate into an exchange of opinion nor is it purely destructive. Nothing in a recitation is capable of proper defense unless it can

be based upon some pedagogical principle; all criticisms should be so based. When a student opposes a point in a recitation he is held to suggest something better in its place.

When it seems advisable, and long before they are allowed to teach, Juniors are required to write detailed plans for recitations. These plans are subjected to the same vigorous criticism as the recitations that they have observed.

It is in this way that the training department seeks to lay the foundation for the student's ideal of a recitation.

REALIZATION OF THE IDEAL.

At the beginning of the Senior year the teaching begins. For each recitation the student prepares a detailed plan, seeking to avoid the errors and to follow the suggestions that he has been led to appreciate in his observations and criticism. The plan shows the leading questions that he expects to ask and the answers they should bring. He strives as far as possible to ask questions that will call for thought on the part of the pupil. The wording of the questions is important, the sequence equally so.

The following plans illustrate the idea:

READING.

SECOND GRADE.

Subject matter: "The Little Tree," from Thompson's First Reader, "Fairy Story and Fable."

Aim: We shall read to-day about the pine tree's wish for glass leaves, and what happened to these leaves.

Preparation: a. For thought content: Why was the little tree unhappy? What wish was granted? What became of the gold needles? What was its next wish? b. For new words: our story says it was night once more, or, instead of "once more," we might say "again." (Write the word on the blackboard.) What leaves did the tree ask for? (Glass.) The tree said it did not (think) any one would (come) for the glass leaves.

What did come? (Point to "come.") The (wind) and the leaves?—(Were broken.)

Presentation: Silent reading to be followed by oral reading. In silent reading words needed will be written on the blackboard, or assistance given individually.

You may read to yourselves the tree's second wish, and how this wish came true. (Three sentences.)

"'I would like leaves of glass."

Again night came, and the little tree went to sleep.

In the morning it had leaves of glass."

What did the tree say about its new leaves? (Three sentences.)

"Then it cried, 'Oh, how beautiful my leaves are. They are not like the leaves of other trees. They are of beautiful glass.'"

Let us see what else it thought of the glass leaves. (Three sentences.)

"They are so much better than needles and better than leaves of gold."

I do not think the man will come to get them. No other tree is as beautiful as I am'"

Were the glass leaves a safe kind to have? (Two sentences.)

"Then the wind came up.

All the beautiful leaves of glass fell from the tree and were broken."

Questions for expression and enunciation. What kind of leaves? When did it have the leaves of glass?

Did the tree like the glass leaves? How did it tell its joy? Were they like other leaves? How did the tree tell this? Did the tree think that any one would take them? Did it think some other tree as beautiful?

Summary: The selection to be made by several pupils.

The student has charge of his first class for twelve weeks, taking another in a different grade and a different subject for twelve weeks, with a similar change for the last twelve weeks. This gives him a strong feeling of the universality of the pedagogical principles he has been applying. He has been allowed sufficient independence in the discipline of his class to test and strengthen his ability to govern it. This will give evidence of his ability, or lack of ability, to govern his own school in the future. If he needs strengthening, special opportunity may be furnished. Graduation should be denied until the student shows his ability to govern well. The student should not be given charge of a class until the critic teacher feels

reasonably assured that the class will not suffer at his hands. The children are not for his good. One of the advantages of such a school is the control that may be, should be, and in many schools is exercised over inefficient teachers, while the necessary changes need not be more frequent than in schools where promotions are made half-yearly, nor than in most high schools.

During the Senior year a recitation for class criticism is held in the presence of the Seniors, from time to time, by one of their number, by a critic teacher, or by the superintendent. Two Seniors working together prepare a written criticism according to the outline given above. The teacher who holds the recitation—the—practician—prepares a written self-criticism. These are read at a subsequent meeting and thoroughly discussed.

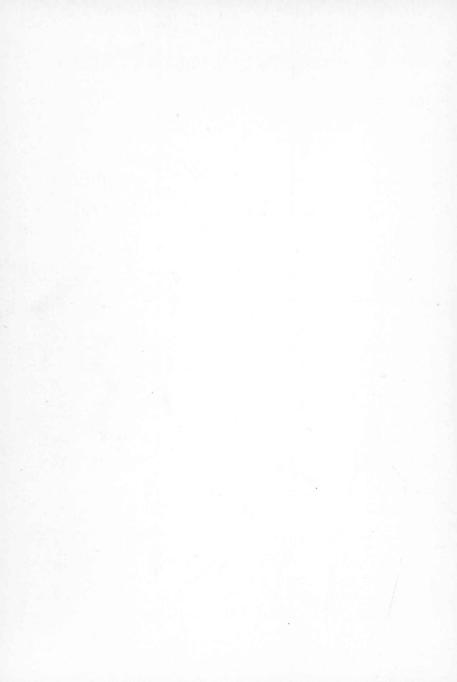
COURSE OF WORK

See or send for Training School Bulletin, which gives a very full account of the work.

STATE NORMAL SCHOOL

GREELEY, COLORADO

High School Department



HIGH SCHOOL.

GENERAL NOTES.

The school opens September 8, 1903.

In the High School Department of the Normal Training School at Greeley the state offers an excellent opportunity for High School training free of tuition to those who have completed the Eighth Grade work of a public school, or its equivalent.

Students who hold an Eighth Grade County Diploma are admitted to the Ninth Grade without an examination.

High School students have full use of the various laboratories of the Normal School, and of the studios and library, on the same condition as the Normal students.

Tuition is free. Text-books are furnished by the school. A library fee of \$2.50 per half year is charged for the use of books.

A deposit of \$2.00 is required when the student registers, and is returned, less the value of any books damaged or not returned, when the student leaves school or at the end of the year.

The Shakespearian Literary Society is organized, officered, and controlled by the students, and offers opportunity for practice in literary, dramatic, forensic, and musical work. It meets weekly at 2:15 Friday afternoons.

"The Normal High School Cadets" is a military company organized, officered, uniformed, and managed by the High School boys.

The enrollment in the High School for the year 1902-1903 is 135.

For further information address The Normal School, or Dr. T. R. Croswell, Superintendent of Training

COURSE OF STUDY-1903-1904.

- 1. 36 weeks in a year's work.
- 2. 22 recitations per week required.
- 3. 792 recitations in one year's work.
- 4. 18 recitations count one "point."
- 5. 44 points in a year's work.
- 6. 132 points required to graduate.
- 7. Figures below denote number of recitations per week in the subject.
- 8. "R" denotes required subjects.
- 9. "E" denotes elective subjects.
- 10. In order to take full work, pupil must take all the required work of each year, and elect enough to make 22 recitations per week.

NINTH GRADE.

Literature and English	R
Reading and Physical Culture2	R
Algebra5	
General History4	E
Biology and Zoology4	

Latin4 E	
German 4 E	-
French 4 E	EI
Spanish4 E	
Sloyd4 E	
Cooking 4 E	Еп
Sewing4 E	Li
Art4 E	
Library Work (limited to 4 students)4 E	
Taxidermy4 E	
Vocal Music4 E	
TENTH GRADE.	
Literature and English R	
Reading and Physical Culture R	
English History4 E	
Algebra 5 E	
Botany4 E	
Physics 5 E	
Latin4 E	
German4 E	Еі
French4 E	
Spanish4 E	
Sloyd4 E	
Cooking4 E	Еі
Sewing 4 E	
Art4 E	
Library Work (limited to 4 students)4 E	
Taxidermy4 E	
Vocal Music 3 E	

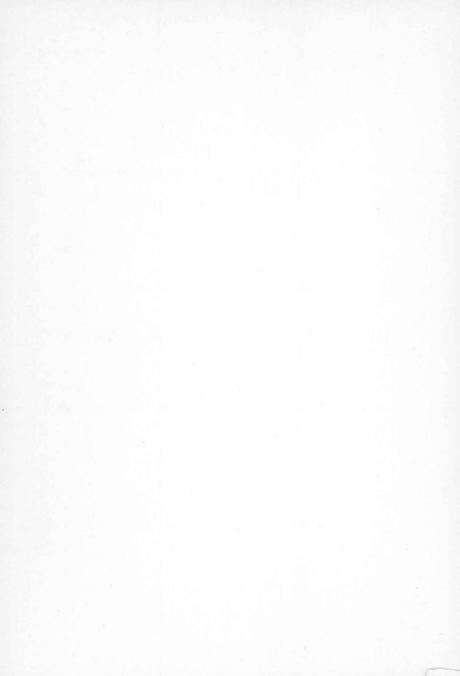
ELEVENTH GRADE.

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STATE NORMAL SCHOOL

GREELEY, COLORADO

Normal College Department



NORMAL COLLEGE.

High School graduates, or equivalent, are admitted to this department. The course covers four years. It leads to a diploma, which is equivalent to the batchelor of arts degree. I. The aim is to prepare men and women for High School teachers. Those who take this course will have an opportunity to observe and teach in the High School four years along the lines of study pursued in the college department. 2. The aim is also to give young men and women an opportunity to prepare well for life by receiving a liberal education and at the same time to learn to do something.

EXPLANATION.

- 1. A school year is divided into two semesters of eighteen (18) weeks each.
- 2. A Term Hour, or Point, is a recitation a week for a semester, or eighteen (18) recitations.
- 3. A norm for school work in the college department is 20 recitations a week.
- 4. Forty Term Hours, 720 recitations, are a year's work.
- 5. A full laboratory period is ninety (90) minutes, and is equivalent to one recitation period.
- 6. The course is divided into Requisites and Electives.

- 7. The student elects his major group. He is under the immediate direction of the professor of the department to which the group belongs. Five (5) recitations a week for four years are given to the major.
- 8. His minor subjects are determined by the professor who directs his major. Three (3) recitations a week are given to the minor.
- 9. English is required four (4) times a week the first and second years, and three (3) times a week the third and fourth years.
- 10. The professional group is required of all who intend to teach, being five (5) recitations a week for four years.
- 11. Three (3) recitations a week for the first and second years are purely elective; and four (4) recitations a week during the third and fourth years are purely elective.
- 12. The following are groups of subjects which serve as majors, and from which minors are selected and electives chosen:

Group I—College Algebra, Trigonometry, Modern Geometry, Analytical Geometry, Calculus and Theory of Equations.

Group II—Biology, Zoology, Botany and Physiology.

Group III—Physics, Chemistry, Physiography and Geology.

Group IV—German, French and Spanish.

Group V-Greek and Latin.

Group VI—English, Literature and History.

Group VII—History, Government and Political Economy.

Group VIII—Psychology, Anthropology, Sociology. Group IX—Anthropology, Psychology, Sociology, History and Philosophy of Education, and Practice in Teaching.

Group X—The Industrial and Fine Arts.



Kindergarten Department

FACULTY.

Z. X. Snyder, Ph. D., President, History of Pedagogy and Philosophy of Education.

T. R. Croswell, Ph. D., Superintendent, Pedagogy and Supervision.

E. Maud Cannell, Supervisor,

History and Philosophy of the Kindergarten, Mutter und

Kose Lieder, Theory and Practice of Gifts and Occupations, Songs and Games, Theory of Kindergarten Practice, Garden Work, Story Telling, Supervision of Practice Work.

S. M. HADDEN, Pd. B., Kindergarten Sloyd.

Anna M. Heileman, *Physical Culture*.

HARRIET DAY,
Art.

Katherine Clute, B. S., Domestic Economy and Kitchen Garden.

KINDERGARTEN TRAINING DEPARTMENT.

The fundamental principle in Kindergarten training is to condition the child for development by rendering it active through the play impulse.

In the evolution of public education it is becoming apparent that the Kindergarten is to serve as a transition from the home to the primary school. It serves to initiate the child into the long established primary school, just as industrial education initiates it into civil society.

The School Law makes the Kindergarten a part of the educational system of the state of Colorado. Hence, there is a demand throughout the state for well-equipped kindergartners. To this end, the Normal School has increased the efficiency of its Kindergarten Department, and its primary purpose is to give a strong and thorough theoretical and practical training for teachers of Kindergartens.

As the diploma given upon finishing the two-year Kindergarten course licenses the holder to teach in the public kindergartens and primary schools of Colorado, ample opportunity is given for practice and observation in the primary grades of the training school.

KINDERGARTEN COURSES.

Entrance Requirements—

Graduates from high schools, or schools whose course is equivalent to that of a high school, are admitted

to the Kindergarten Department without examination, provided they give evidence of some musical ability. Failing to have the musical requirement, and other requirements being satisfactory, the applicant, by taking lessons and practicing at least one hour a day, may overcome this condition.

As character, culture and a certain aptitude are peculiarly necessary for Kindergarten work, the department reserves the right of selection and decision in each case, and as soon as it is determined that the individual has no aptitude for the work, she is requested to withdraw from the class.

Those who have finished the Sophomore year of the regular Normal course may elect the two years' Kindergarten training course, if they show fitness for that work.

Graduates from State Normal Schools and Colleges may complete the Kindergarten course in one year, provided they have the requisite training in music.

Persons who do not come under the above conditions may be entered by submitting satisfactory credentials.

OUTLINE COURSE OF STUDY FOR KINDER-GARTEN DEPARTMENT.

Junior Year-

I. Kindergarten Theory.

Discussions of practical child-training questions, based upon the "Study of Child Nature," Frobel's "Mutter and Kose-Lie-

der." Great emphasis is put upon this work, as it is the foundation of the entire Kindergarten system and embodies Froebel's philosophy of child nature. Abstracts will be written upon each song.

Gifts—Theory of the gifts in general and experimental work for the first six gifts.

Occupations—Theory and practical working out of all the occupations. Broadening Froebel's schools of work into large constructive employment, utilizing nature's materials.

Games—"In the Gifts and Occupation, the child becomes conscious of his will as a power over matter to convert it to use. In the games and plays, he becomes conscious of his social self and there dawns the higher ideal of a self that is realized in institutions." The chief value of Froebel's system lies in the plays and games rather than in the Gifts and Occupations; therefore special emphasis is placed upon developing the play spirit of the students. Study is made of the development of race games, street games, social and individual games: principles and practice of the games. This work will correlate closely with Physical Culture work.

Program—Plans of Kindergarten program for the circle work for the day, week and year will be discussed, that the development and continuity of the whole may be impressed. Also the selection and adaptation of subjects for talks and stories in the Kindergarten with reference to the child's life and interests, his relationships and seasons of the year. Adaptation of nature lessons for children of Kindergarten age.

Kindergarten Observation—At least five hours per week of observation in the morning Kindergarten are required. The lesson observed will be thoroughly discussed by the group of Juniors, the Senior who conducted the lesson of the director.

2. Psychology.

Same as Normal Junior work.

3. English.

Same as Normal Junior work.

4. Science.

Same as Normal Junior work.

5. Physical Culture.

Dramatic interpretation. Bodily expression and rhythm.

6. Art.

Same as Normal Junior work.

7. Music.

Vocal—Voice placing and development of tone and rhythm; phrasing and expression; sight reading; study of children's voices;

study of songs adaptable to children's voices; experience in teaching such songs. Instrumental—Soft touch, perfect time and rhythm necessary. Selection of instrumental music suitable for Kindergarten. Ability to interpret this music. Study of composers of music especially suited to children of Kindergarten age. Realizing the power of music, not only educationally, but ethically, the atmosphere of a good Kindergarten should be harmonious, rhythmical, musical. Realizing the demand throughout the country for kindergartners who are also musicians, much stress is laid upon this phase of the course. The chief object is to develop in the student a taste for good music, that she may bring the best to the children in this line, as she presents the best in literature and art. Also to form the habit of looking for the thought expressed in every musical composition and endeavoring to interpret that thought. At the close of the Senior year, each student will be required to play one piece from each of three groups of music given below. or three of similar character

For reverent music, such as:

Handel's Largo. Schumann's Traumerei. Massenet's Intermezzo. Schuman's Rosamonde. Mendelssohn's Consolation, Confidence.

For quieting music, such as:
Mendelssohn's Spring Song.
Grieg's Spring Song.
Thome's Simple Confession.
Any folk songs.

For marches, such as:
The march from Faust.
The march from Tannhauser.
The march from Raff's Leonore.

Senior Year-

1. Kindergarten Theory.

Froebel's Mother Play continued. Froebel's Education of Man. Miss Blow's Symbolic Education.

Gift—Adanced gift work. Psychology of the gifts and occupations.

Program—Adanced program work and practical methods, also discussions pertaining to difficulties which arise in daily work in the Kindergarten.

Games—Same as Junior work. Also connection of Kindergarten work with primary work.

Stories—Studies of Myths and Fairy Stories; adaptation of stories for Kindergarten

use. Value stories. Methods in story telling. Original and typical stories.

Music—Same as Junior year.

Special lectures on topics pertaining to the work.

Practical work in Kindergarten—Each student will have ample opportunity to carry out with the children the theoretical knowledge she has gained, not only at the tables, but in telling stories, teaching songs, conducting morning circle, march and games.

2. Seminar.

Same as regular Seniors.

Two and one-half hours per week practice in the primary grades.

- 3. History and Philosophy of Education. Same as Seniors in Normal course.
- 4· English.
 Same as Seniors in Normal course.
- 5. History of Art.
 Same as Seniors in Normal course.
- 6. Domestic Science.

Hygiene and sanitation.

- a. Aim of study. Health of family and students.
- b. Location of schools and homes. Soil, high or low lands, surroundings.

- c. Ventilation.
- d. Heating.
- e. Lighting.
- f. Water supply.
- g. Plumbing. Kind and care of it.
- h. Disinfecting in case of disease.

Emergencies:

- a. Bleeding and cuts.
- b. Burns and scalds.
- c. Sprains and breaks.
- d. Fainting; convulsions, fits, etc.
- e. Poison, drowning.

Home Nursing:

- a. Care of sick room and patient.
- b. Care of foods and service of them.
- Symptoms of diseases and laws of boards of health with regard to diseases.

Cooking:

- a. Composition, daily income and outgrowth of foods—growth.
- b. Composition of foods; what best for children, and why.
- c. Menus for breakfast, dinners, suppers, for children, and why.
- d. Cooking; applying principles already given of cooking and serving the simple food.
- 7. Sloyd work—special course.

One Year Course-

Graduates of the State Normal School may complete the Kindergarten course in one year.

- Kindergarten Theory with both Juniors and Seniors.
 Kindergarten observation and practice.
- Domestic Science.Same as Senior Kindergarten.
- 3. Drawing.
- 4. Elective work.

It is a necessary part of the pedagogical training that the principles and practice of the Kindergarten be understood by all the graduates from the School. Lectures upon the Philosophy of the Kindergarten upon Froebel's relations to other philosophers and educators, will be given. Observation in the Kindergarten and practical lessons will be given with the Gifts and Occupations.

The morning Kindergarten gives opportunity of putting into practice the principles and instructions given in the theoretical work. One is useless without the other. The points made under the Training School Department are equally applicable in the Kindergarten. The real center about which all the Kindergarten work depends is the child's instinctive interest in nature and life, and it is the endeavor of the Kindergarten to make the child's contact with nature as close and vital as possible. To this end, each child has a garden plot in which he digs, sows seed, and watches and tends the growth of his plants. This gar-

den work will be the basis of much of the nature work with the children.

"It is of the utmost importance that children should acquire the habit of cultivating a plot of ground long before the school life begins. Nowhere as in the vegetable world can his action be so clearly traced by him, entering in as a link in the chain of cause and effect."—FROEBEL.

As many animals as possible will be cared for by the children. When the weather permits the games and work will be carried on out of doors.

Since the Kindergarten is situated at the edge of town, it is specially conducive to the frequent excursions which each Senior takes with her group of children. The flowers, leaves, stones, etc., gathered upon these walks are brought back to the Kindergarten and are there utilized in some way, such as being pressed, pasted or painted. While it may be necessary that the Senior have sufficient scientific knowledge as a basis for this work, she must also have an appreciative love of nature, that she may unconsciously lead the children to see the beauties and mysteries of nature.

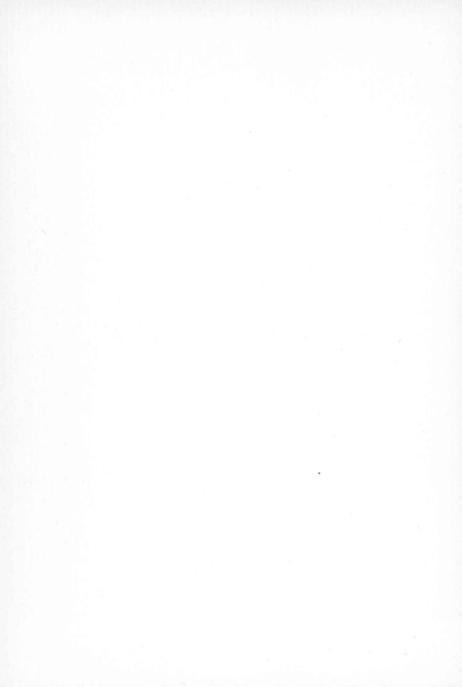
"The child's first tutor is nature and her tuition begins from the moment that the child's senses are open to the impressions of the surrounding world."—Pestalozzi.

MOTHER'S CLUBS.

All over the country mothers are becoming interested in child study. They are appealing to kindergartners for guidance in this work. Frequent requests have been made of the supervisor of our Kindergarten Department for suggestions and plans of work in regard to mothers' clubs. These have led us to attempt to do some work in this line by correspondence. It is proposed to furnish clubs that may desire it with such subjects for discussion and study as are relative to child study. All this may be arranged by correspondence.

Beside the correspondence work, the supervisor of the Kindergarten would be glad to meet such clubs, at a time to be arranged, and give talks relative to the work. There would be no expense except such as would be incurred in traveling and entertainment. For information address the Normal School.

The supervisor holds occasional mothers' meetings during the year at the Normal School.



Music Department



VOCAL MUSIC.

I.—All Knowledge of Music is Acquired by Hearing Music—

Pattern is absolutely essential to learn to sing. The teacher must sing to the pupils to show them how to sing. The development of the hearing faculty lies at the foundation of teaching to sing. The teacher should constantly bear in mind that she is to train ear, voice and eye, and that this is the order of their relative importance. The teacher of drawing teaches his pupil to see and then to produce what he sees; the teacher of singing teaches his pupil to hear and then to produce what he hears. It follows, therefore, that, as is the pattern, so will be the singing, the teacher finding her performance reflected back to her from the class.

Childhood affords the most opportune time for learning to sing—then the impulse to imitation is strongest, the vocal organs most flexible and pliant, and self-consciousness (the bane of singers) least assertive. Correct habits formed at this period conserve and strengthen the voice and develop taste.

The nature of the case implies careful listening on the part of the pupils. To train to discriminative perception is to educate. The aim is not merely singing, but expressive singing. The teacher will sing all exercises, as well as songs, softly and with lively cordiality, to render them attractive to her class. Nothing is to be presented in which she herself does not feel a real interest. The nature of the interest felt by the teacher and child will differ in this as in other subjects; to the one it will be pedagogical, to the other musical.

II.—Choice of Music is to be Determined by Needs of Pupil and not by Taste of Teacher.

As in literature, Shakespeare and Browning would wait on "Mother Goose" and Robinson Crusoe, so the musically elementary should precede and lead up to Beethoven and Brahmos. The training which leads to an understanding and consequent enjoyment of good music works is as truly an evolution as is all education. The history of the art clearly shows the lines along which the race came to its present musical consciousness. The child must go through the same stages, in the same succession to reach the same end. The first songs should be such as imply the simplest harmonies, involving at the same time the fewest possible elements of melody. They should be in the major mode, quick in movement and bright in color.

Rote Singing-

The purpose of rote singing is to develop taste. Good taste demands, first, that the songs shall be worthy the time expended on them both as to words and music. Unless the words are worth while—poetic thought, poetically expressed—the song is not to be used. The music must be genuinely melodious and so adapted to the words as to bring out and enhance their meaning. The song

should be carefully phrased and the phrases so contrasted as to show their relative importance and to clearly set forth the climaxes. Rote singing is justified only when done in an artistic manner.

Good taste demands, secondly, that the songs shall express such sentiments as belong to the child. Avoid songs that express strong, intense emotions. Happy and bright subjects are natural to and therefore right for the child. The emotional life of the happy child is calm and even.

In presenting the song, the teacher will create an atmosphere which is absorbed by her pupil; it will envelop and permeate as the sunlight envelopes and permeates. This atmosphere is that certain something which is the power of the orator to move his hearers. It is that compelling influence, commonly called magnetism. Without it, there is no art.

III.—An Understanding of the Child's Voice, Its Power and Range, is an Essential Equipment of the Teacher of Singing.

Compare the speaking voices of children with those of adults. You will notice that the low tones of even the adult soprano voice are rarely used by the little child. There is a steady deepening both in pitch and quality from babyhood to maturity. This is not to say that the voice is limited in range. The lower tones are lacking and the finer rhythms calling for quick, light, elastic tones meet the physical and mental needs of the little child. This period of activity is especially adapted to the accomp-

lishment of agility. The piping shrill tone of the little child is a matter of common remark. Its singing voice is likewise high in pitch. Proper songs and exercises are such as recognize this peculiarity. They will not lack in upward range but will avoid the low tones.

IV.—Sight Singing is Hearing through the Eye.

The sight singer has the power to sing correctly from a series of printed notes, the series of sounds corresponding to such notes, and gets at first sight of the music page the effect which comes to one not a sight singer, only through the medium of the piano or another person. To the sight reader the tone symbols instantly bring to his mental hearing that for which they stand. To realize the mode power of the page, music, being a language, is to be learned as languages are learned—the ear is to lead. Notation is to be relegated to its proper place—a sign for something already known. Signs are not used for teaching music, but music is to be used for teaching signs.

V.—Sight Singing is Possible Only when a Sense of Tonality is acquired.

To this end all instruction must be directed. Tonality is a sense of key, by which one is able to instantly sound or sing the key note of any piece just heard. More than this—if, in the progress of the piece, there be a modulation or transition, he is able to give the new key note. By this sense the hearer instantly perceives the relation of any tone to a given tonic. This same sense establishes in the mind a relation of all tones, so that the mental effect or "mood power" of each tone of the scale is clearly ap-

prehended, giving the power to note down anything heard. This "mood power" of the tones in scale corresponds to the thought power of words in a sentence and produces a feeling which is as clearly apprehended as is the thought expressed by the word. When this sense of tonality is established and the relation between the effects and the signs for the same clearly known, the pupil will readily write what he hears. Hand in hand with this tonal sense there must be developed a sense of rhythm and a knowledge of its notation.

A single tone, alone and unrelated, is entirely without musical meaning. Indeed, no tone dissassociated can be properly called a musical tone. The mind, when regarding it as music, thinks of it at once as a tonic or as related to a tonic. G has a totally different effect as the third of the key Eb from what it will have as a member of any other key. On the other hand, F as third of key Db will have the same meaning—will say the same thing as is said by G in Eb. The power of the tone does not depend on its pitch, but upon its place in key. The problem of teaching the accurate production of pitch is the development of the sense of the individuality of tone in key. To do this we proceed along the line of least resistance as shown by the evolution of the art. The child is taught to produce a fifth for any tonic. With these two tones a third is associated. Ear and mind are tuned by the use of interesting exercises, so devised as to secure and maintain the pleased interest of the child, and are trained to recognize differences in pitch as well as tone qualities. In like manner the dominant and sub-dominant chords come into the vocabulary and are incorporated into exercises, rounds and songs. In these exercises rhythm is a marked feature.

The regular recurrence of accents in groups of pulses or beats has a charm which we all feel. This and this alone is the attractive power of the drum, cymbals, the gong and other instruments of percussion. This charm is universally felt, even by those to whom all tunes are alike. It accounts for the popularity of "Mother Goose" and other nursery rhymes. It is the basis of the tonal art —the form which is later clothed upon with melody. The perception of rhythm is the easiest art exercise of the mind. Rhythmic perception becomes highly developed in people whose harmonic sense is but quite elementary. Fine illustrations of this are afforded by the music of the Negroes, the Omaha Indians and the Cubans. Within the phrase there should be enough variety to clearly define its limits and enough similarity between phrases to unmistakably show their relation. In first exercises it is well that a number of the phrases should exactly repeat the rhythm of the first.

The teacher should bear in mind that the great composers, while using simple harmonies by rhythmic devices, produced masterpieces which expressed the healthy emotional life of a vigorous and sane-minded people. Rhythm belongs to the play period and is a delight to the child. Note the rag-time tunes and Sunday School music, which have no musical interest apart from their rhythm.

The teacher, in private practice or preparation, should begin with the simplest forms and elaborate them

both as to tone and rhythm, thus gaining facility and readiness before her class. She should know how to construct interesting musical exercises as readily as she can propound problems in number and dictate sentences in English.

Pupils should be taught to *feel* rhythm, to enter into and move with the rhythm as the result of an inner impulse. When this is accomplished a chorus of four, forty or four hundred will move together in absolute accord.

VI.—Immediately after the thing is learned it is to be named.

This name is kept as the specific description of the effect. Each effect is to have but one name. As soon as the relation is well established between the effect and the name, the sign is to be given. This sign must be definite, clearly and unmistakably indicative of the special effect and in no way indicative of any other. It is a matter of prime importance that the child should not be permitted to guess nor to be in any doubt as to the meaning of the signs. To this end, the most easily perceived effects are to be taught first. As in teaching color, we begin with two primary colors and add other primary ones, finally coming to shades and tints, so in teaching tones we proceed slowly, using the law of contrast.

It is a reasonable and fair test of the teaching of English that pupils shall be able to write English from dictation, *i. e.*, make the written signs on hearing the spoken words. It is no less reasonable that they shall make signs for tones sung to them. This furnishes a means for determining the individual accomplishment of a class.

Music is beauty in utterance—

The child is to be trained to see beauty. Music's place is not merely amusement, nor even diversion. These are incidental or minor effects. The satisfaction of the mind and heart must come from art work if that work is genuine. The final result must be kept in mind from the first lessons. Increase of power to enjoyment must come from each lesson. This means that something new is to be accomplished by each lesson—some new perception gained or clarified. The engrossing and absorbing nature of music as an emotional expression tends in an unusual degree to obscure the fact that the judgment and will must also receive attention. The heart is to be quickened, the judgment to be exercised and the will trained. The heart responds to the beautiful, the judgment is exercised by comparisons and perceptions of relations, and the will is trained by doing a part which contributes to an enjoyable result. A simple tuning exercise or a round contains all the material necessary to accomplish this in the early stages. The impulsive and childish must give place to the reflective, well considered and mature—and this must be a growth. The child, at the most receptive age, when its ear is most sensitive, is to store impressions, learning the signs which stand for them, from which it will later make comparisons and form judgments.

"The reason why the higher work of music finds fewer to appreciate it is because no art can satisfy one to whom it appeals, except so far as his mind can compare its parts together and perceive in them how unlike complex wholes are grouped on the principle of putting together their partial effects." Constructive ability is therefore absolutely essential to the highest enjoyment of the art of song. Comparison of parts is necessary from the start. Art is a question of just relations. In music it is comparison of tone with tone and duration of one tone with that of another. The pupil's perception must be trained to observe these relations, first, in their simplest forms, and, later, in complex adjustments.

It should be the aim of all teaching to create an appreciation for good music, so that the student will be impelled to pursue the subject beyond what the public school course can supply. We must make the student feel the worth and nobility of the subject, showing that it ministers to his mental as well as his emotional nature. This implies that he must be provided with a key to the understanding of good music.

COURSE OF WORK.

For course of work in vocal music see Vocal Music in another part of catalogue. The vocal music in the Normal School is free and is required.

INSTRUMENTAL MUSIC.

The instrumental music is not connected in any official or financial way with the State Normal School. mental music, and this insertion is to inform them of the mental mosic, and this insertion is to inform them of the opportunities they have in connection with their other work.

PIANO DEPARTMENT.

Preparatory. This is intended for beginners. Recent years have more fully demonstrated a child may be advanced to musical playing by rational methods of instruction and practice in one-third the time usually consumed.

Our plan of work is of this character:

First year—Foundation materials from Prentice, Reineke, Landon, Curwen, MacDougall, Mozart, Haydn, Nurnberg, Engelmann, Mueller, Hummel and others; incidental application of Mason's Touch and Technic to all playing.

Second year—Etudes from Lemoine, Loeschhorn, Duvernoy, Burgmueller and Koehler. Easy pieces by Gurlitt, Engelmann, Lichner, Schumann, Krug and others. Scales and chords.

Third year—Studies from Heller, Czerny, Bertini and Loeschhorn; Sonatas by Mozart, Clementi and Dussek; easy Sonatas by Haydn, Hummell and others.

Normal Course—This requires that students shall have had the equivalent of the Preparatory Course.

First year—Bach's Inventions (two-voiced); Czerny's School of Velocity Studies; Mason's Technics; Etudes of Duvernoy, Heller, Krause, Schytte, Handel, Bertini and others; pieces by Mendelssohn, Beethoven, Schubert, Chopin, Schumann, Tschaikowsky and others.

Second year—Cramer's Studies; Mason's Technics; Bach's Inventions (three voices); Sonatas by Mozart and Beethoven; works of Chopin, Gade, Grieg, Raff, Rheinberger, Moszkowski, Scharwenka and others.

Third year—Bach's Well Tempered Chavichord; Octave Studies; Mason's Technics; more difficult Sonatas of Beethoven; larger compositions of Mozart, Haydn, Mendelssohn, Rubenstein, Schubert, Schumann, Weber and others; selections from the best American compositions.

VIOLIN COURSE.

A violin course is in process of arrangement. It will be in keeping with the high character of work in other branches of the Music Department.

Students in piano and violin will have free access to sight-reading classes, recitals, lectures and other incidental advantages of the school.

SCHEDULE OF PRICES.

PIANO.

VIOLIN.						
Private	lessons,	two	per	week,	per	term 30.00
			-		-	term\$18.00

Private lessons, one lesson a week, per term..... 18.00 Private lessons, two lessons a week, per term..... 30.00

Tuition payable each term in advance. Lessons missed will be at the loss of students. In case of prolonged illness, the loss will be shared with the student. Rates of tuition quoted above are not good for less than a full term.

Inquiries should be addressed to the Director.

...COLORADO... 8TATE NORMAL SCHOOL GREELEY, COLORADO

Miscellaneous



MISCELLANEOUS.

GOVERNMENT.

That government of school which brings about selfcontrol is the highest and truest type.

Discipline consists in transforming objective authority into subjective authority.

The object of school government is to preserve the thing governed; the aim is to develop the power of selfcontrol in the students; the end is to make the pupils willing subjects of their higher motives and obedient servants to the laws of man and God. This conception of government put into execution is the only kind capable of developing high character. The school aims to develop this power of self-control, and to cultivate such sentiment as will render discipline unnecessary. Activity is the principle of development. Self-government makes him strong and fits him for life, while coercion, or government from without, renders him unfit for self-regulation. Thus bringing the student's regulative powers into use—his self-acting—there is an abiding tendency to self-government remaining. This is nothing more than training the will. If in the government of a school no effort is made to develop the will, no other opportunity so potent presents itself. The aim should be to build up a symmetry of growth in the three general powers of the mind-intellect, sensibility and will. Students who cannot conform to such training, 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 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 school. 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 IN-FLUENCE.

While the school is absolutely free from denominational or sectarian influence, yet 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 attaining to a higher life.

TRAINED TEACHERS.

Trained teachers are in demand. Many districts and towns employ no others. We have inquiries for good

teachers. We expect to supply this demand from the graduates of the Colorado State Normal School.

THE STANDARD OF THE SCHOOL.

It is the purpose of the trustees and faculty of the Colorado State Normal School to maintain a high standard of scholarship and professional training. Those who are graduated shall be thoroughly prepared and worthy of all for which their diplomas stand. It shall be the policy of the school to protect those who employ our graduates by making them "worthy of their hire;" because, in so doing, we also protect them (the graduates) and the children whom they teach.

DIPLOMA.

Any person who completes the required course of study, and who possesses skill in the art of teaching, and who is of good moral character, will receive a diploma, which, according to law, is a life certificate to teach in the state of Colorado; and, in addition, he will have conferred upon him by the trustees and faculty of the institution the degree of Bachelor of Pedagogy.

LIBRARY AND READING ROOM.

"The true university is a collection of books."—
THOMAS CARLYLE.

"Reading makes a full man."—BACON.

For the delight and improvement of students and faculty the institution has connected with it an excellent library and reading room. As a means of education this feature of a school is indispensable. It is a fountain of knowledge, a source of discipline, and a means of culture. The room is fitted up to serve the purpose of a "literary laboratory;" including reference books and works of a general nature, as history, biography, literature, fiction, poetry and science. There are about eighteen thousand volumes.

Among the reference books are: The Encyclopædia Britannica, American, Johnson's, People's, Young People's, and a number of smaller cyclopædias; Lippincott's Biographical and Geographical Gazetteers; Universal Biographical Cyclopædia; Webster's International Unabridged Dictionaries; Appleton's International Scientific Series, and several fine Cyclopædias of History; Reclus' Earth and Its Inhabitants; Century Dictionary; Standard Dictionary; Encyclopædic Dictionary; Dictionary of Woods.

In addition to the above there is a pedagogical library. It contains works on philosophy, history of philosophy, science and art of education, philosophy of education, history of education, psychology, school management, methods, and general pedagogics.

The reading room contains an assortment of the ripest, richest and freshest magazines and educational journals published.

For further information regarding the library in detail send for Library Bulletin. This gives a very detailed account of it.

ATHLETICS.

"A sound mind in a sound body."—Juvenal. Much interest is manifested in athletics. The object of athletics is two-fold: recreation, or enjoyment, and physical training. All participate in some way or other. The boys' field day in the fall and the girls' field day in the spring arouse much interest.

The events consist of Foot Ball, Lawn Tennis, Croquet, Alley Ball, Tug of War, Base Ball, Delsarte, Calisthenics, Archery, Golf, Target Shooting, Club Races and Relays.

All teachers and students in the school are members of the athletic association. The membership fee is fifty cents per year. This fee is compulsory.

THE CRUCIBLE COMPANY.

The *Crucible* is a monthly magazine, conducted by the students. It contains articles in literature, science, art and pedagogy, besides school news in general and of the Normal especially. It has a circulation of about 800.

CRUCIBLE STAFF.

1902-1903.

(Commencing September 9.)

Editor-in-Chief, Maude Hunter; Literary Editor, Edna Fisher; Pedagogical Editor, Mabel White; Exchange Editor, Hope Taylor; Assistant Exchange Editor, Ella Neuman; Kindergarten Editor, Bronte Whitham; General Notes, Mildred Howard; Assistant for General Notes, Mary Kendal; Junior Representative, A. M. Merrill; Business Manager, Samuel Hughell; Circulator, Miss Minnie Bay; Athletic Editor, Flosse Churchill; Advertising Agent, H. Harman Clement; Alumni Editor, Dora Ladd.

1903-1904.

Editor-in-Chief, Miss Eva Eldridge; Advertising Agent, W. C. P. Meddins; Business Manager, Wheeler Kelsey; Circulator, Miss Florence Cook; Proof Reader, Miss Bessie Jones; Literary Editor, Miss Alma Smith; Kindergarten, ————; Athletics, Edith Douglass; Art and Handicraft, Anna C. Rooney; Exchange, Minnie M. Cope and Ella M. Lewis; General Notes, Jessie Morey and Lois O. Archer; Junior Representative, Ray Alexander.

The *Crucible*, one year in advance, 50 cents; one term, in advance, 25 cents; single copy, 10 cents.

All remittances must be made to the Business Manager. If any subscriber should fail to receive the paper at the proper time, he will be doing us a favor by informing us of the fact at once. Apply to the advertising agent for advertising rates. Entered at the postoffice at Greeley, Colorado, as second-class matter.

CHRISTIAN UNION.

Realizing the necessity for religious culture in the school, and believing much good would come of Christian association, a number of those interested organized themselves into a union early in 1892. The membership has

averaged nearly 100 each year, and has represented the religious thought of the school. Meetings are held every Sabbath afternoon.

RECEPTION COMMITTEE FOR NEW STU-DENTS.

Professor D. D. Hugh. Elizabeth Kendel. Miss Eva Eldridge. Miss Jessie Morey. E. T. Snyder.

Duties: To assist new students and form a general reception committee for the year. This committee will meet students at the train. They will wear a badge of the school colors, lavender and lemon, with the letters "S. R. C."

ALUMNI ASSOCIATION.

The Alumni Association is the strong organization for influence connected with the school. There are now 623 members. This means as many centers of influence for better educational work and for their *Alma Mater*, "Old Normal."

MUSEUM.

A museum is an indispensable adjunct to an educational institution. In this age of science teachers of public schools must have a working knowledge of the subject, as well as skill in presenting it. While outdoor work is

first as a means in giving a knowledge and cultivating a sentiment for nature, yet, collections are valuable in giving a view of nature in small compass, if they are properly arranged. The school has a fair working museum. There is no special room under lock and key set apart for storing specimens, but the cases are built in the laboratories where the specimens are to be used. About 200 linear feet of casing, ten feet high, and from ten to thirty inches deep, line the walls of the various laboratories. In them are found most of the birds of Colorado and many from other states; many insects from this and other states; plants of Colorado and surrounding states; a great variety of liquid specimens; a number of mammals, fossils, etc.

If there are persons who have specimens and do not have places to keep them, we shall gladly give them room in cases where they may put them on deposit for safe keeping. If there are persons who have specimens and care to donate them, the institution will cheerfully receive them and give full credit to the donor. Quite a number have been donated by friends of the school.

The Trustees are arranging to secure, in pairs, stuffed specimens of all the large animals of Colorado. During the year a number of specimens will be added to the collection. At present a taxidermist is at work preparing the smaller animals and collecting all such specimens as are necessary to complete the collection.

DIRECTIONS.

I. Those who contemplate attending a teacher's school would do well to write us. Do not hesitate to ask

questions about the school; that is what we want. We like to answer them.

2. Persons who propose attending our school should let us know as soon as they make up their minds; let us know how you want to board, and whether you want us to make arrangements; let us know on what train you will arrive.

For any information you want, address the secretary or president.

SESSIONS OF SCHOOL.

There is one session a day, commencing at 8:15 a.m. and closing at 12:45 p.m. Study hours are from 3 to 5 and from 7 to 10. Students are expected to conform to these as far as is reasonable. A pupil is more liable to contract habits of study who has a time to study and a time to exercise. The Training School has two sessions a day.

EXPENSES.

To all persons sixteen years old or over, who declare their intention to teach in the public schools of the state of Colorado, and who fulfill the conditions for entrance. the tuition is free.

TEXT BOOKS AND OTHER FEES.

NORMAL DEPARTMENT.

1. All students who enter the Normal department of the State Normal School will pay the half yearly fees at the first of each semester. The fees for the first

semester are: Book fee \$4, Laboratory fee \$1, Athletic fee 50 cents and Industrial fee (if the individual takes the subject), \$1.50. For the second semester these fees are the same.

TRAINING SCHOOL DEPARTMENT.

- I. All students who enter the High School of the Training School department will pay the first semester: Book fee \$2.50, Athletic fee 50 cents; should the student take Sloyd, Cooking, Sewing or Library handicraft, \$1.50. For the second semester the fees will be the same.
- 2. All pupils entering the grammar grades of the Training School will pay for the first semester a book fee of \$1.50 each and \$1 per semester for Sloyd, Cooking, Sewing or Library handicraft, if they take either. For the second semester the fees will be the same.
- 3. All pupils entering the primary school will pay: Book fee for first semester of \$1, and the same amount for the second semester.
- 4. All children entering the Kindergarten department will pay \$1 for each semester.

All students entering from other states who are not at the time of entering citizens of Colorado, will pay the following: Tuition, first semester \$10, Laboratory fee \$2, Book fee \$4 and Athletic fee 50 cents. Should the individual take Sloyd, Cooking, Sewing or Library handicraft, the fee will be \$1.50. The same fees will be paid for the second semester.

Students electing chemistry are required to pay a fee of \$3 and deposit \$2, which two dollars will be refunded at the close of the year, less breakage.

BOARDING AND ROOMING.

Students board and room in private families from \$3.50 to \$4.50 per week. Boarding alone \$2.50 to \$3.50 per week. Self-boarding costs from \$1.50 to \$2.00 per week. Rooms rent from 75 cents to \$1.00 and \$1.25 per week, two in a room.

ADMISSION.

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.

The resolution regulates the admission.

- 1. All who enter must give evidence of good moral character.
- 2. High school graduates, or those having at least an equivalent education, may enter the Junior class without examination.
- 3. Persons who hold a teacher's certificate will be admitted to the Sophomore class without examination. All also who have an equivalent education will be admitted.
- 4. Graduates of other normal schools of high standing will be admitted to the Senior year.
- 5. College graduates will be admitted to the Senior year.

VISITORS.

The school is open to visitors. All are made welcome. The teachers and educators of the state are especially invited. The school belongs to the state—it be-

longs to the teachers of the state. Any one who may have a day, a week or a month to spare would be profited by paying us a visit, entering the classes, taking part if he so desires. It should be quite a privilege to visit our school.

COSTUMES.

All members of the Senior class provide themselves with the College gown and Normal cap. Gowns may be purchased ready made at prices ranging from \$4.00 to \$6.00. The price of the caps ranges from \$1.60 to \$2.50. The color of both gown and cap is black.

Catalogue of Students



CATALOGUE OF STUDENTS.

NORMAL DEPARTMENT.

SENIORS—93.

Allyne, Emily	Greeley, Colo.
Asmus, Karina	Akron, Colo.
Atherly, VarinaF	Fort Collins, Colo.
Ayers, Lucy E	Denver, Colo.
Bandy, PearlW	hite Water, Colo.
Balch, Edith J	
Bay, Minnie	
Beardsley, Earl	Greeley, Colo.
Biegler, H. K. (Mrs.)	
Bodle, Veda	Denver, Colo.
Carnine, Stella M	Denver, Colo.
Churchill, Flosse E	Greeley, Colo
Clark, Nellie E	Lucerne, Colo.
Clement, H. Harman	White Hall, Mich.
Clement, Aurora W. (Mrs.)	White Hall, Mich.
Clonch, Nell P	Greeley, Colo.
Cooley, Ruth	Trinidad, Colo.
Day, Etta M	Masters, Colo.
Eaton, Fern BGran	nd Junction, Colo.
Fagan, Katie D	Berthoud, Colo.
Faus, Ada	Ionte Vista, Colo.
Farnworth, Mary	Severance, Colo.
Fisher, Edna V	Denver, Colo.
Frink, Ruby W	Fort Lupton, Colo.
Gordon, Carrie	Greeley, Colo.
Gruber, Mayme F	Omaha, Neb.
Hale, Dolly	Boulder, Colo.
Hayward, Lois	Boulder, Colo.
Henebry, Agatha C	Denver, Colo.

Herrick, Olive M	.Cripple Creek, Colo.
Hilton, William A	Loveland, Colo.
Howard, Mildred	Greeley, Colo.
Hughell, Samuel L	Mt. Pleasant. Ia.
Hogarty, Viola Collins (Mrs.)	Denver. Colo.
Hunter, Maud E	Rinn. Colo.
Ingram, Grace	Greelev, Colo.
Inman, Minnie J	Denver. Colo.
Jones, Allie	
Keeler, Bessie	Greeley, Colo.
Kelley, Edith	
Kemp, Josephine	Los Angeles, Cal.
Kendel, Mary	Greeley, Colo.
Kleinsorge, Louise J	Le Mars, Ia.
Lauenstein, Minnie V	Longmont, Colo.
Martin, Beatrice E	Denver, Colo.
McCoy, Minnie E	Meriden, Kan.
McCracken, Katharine	Denver, Colo.
McCullough, Edith E	Greeley, Colo.
McIntyre, Jennie	Fort Collins, Colo.
McNeal, Chandos L	Golden, Colo.
Mergelman, Lulu	Iola, Colo.
Middleswarth, Harriet E	Denver, Colo.
Mitchell, Miriam V	
Mundie, Isabelle F	N. Tonawanda, N. Y.
Nevitt, Eva E	Del Norte, Colo.
Neuman, Ella	Victor, Colo.
Newcomb, Anna H	La Junta, Colo.
Phillips, Jessie	Ridgway, Colo.
Poirson, Louise	
Reynolds, Gerda	Denver, Colo.
Robinson, Goldie W	Denver, Colo.
Ross, Esther	lorado Springs, Colo.
Scott, Nettie (Mrs.)	Del Norte, Colo.
Scherrer, Josie	Denver, Colo.
Schweitzer, Katie	
Scofield, Beulah F	Denver, Colo.
Singleton, Nellie A. (Mrs.)	Florence, Colo.
Slavin, Helene	Leadville, Colo.

Sleeper, Sarah E	Denver, Colo.
Stealy, Elza R	
Stokes, Katharine E	Greeley, Colo.
Stone, Alice I	
Sturges, Katharine M	Denver, Colo.
Taylor, Hope C	
Tilyou, Blanche	Greeley, Colo.
Tucker, Hazel	Denver, Colo.
VanCleave, Ada M	Greeley, Colo.
VanNest, May	Denver, Colo.
Wakeman, Alleah	Rico, Colo.
Watson, Edna	Lake City, Colo.
Welch, Jeanne	Bedford, Ia.
White, Mabel	Denver, Colo.
Whitham, Bronte	Denver, Colo.
Whitham, Xavia	Denver, Colo.
Williams, Claude	Kersey, Colo.
Wilson, Isa D	Eaton, Colo.
Worth, Katie	Breckenridge, Colo.
Worrell, Blanche	Leadville, Colo.
Wood, Texie M	Eaton, Colo.
Young, Charles	Panora, Ia.
Youngclaus, Emma	Rico, Colo.
Youngclaus, Katie	Rico, Colo.

JUNIORS—131.

Adams, May E	Greeley, Colo.
Abrams, Mabel	Greeley, Colo.
Agnew, L. Maud	Eureka, Colo.
Alexander, Grace L	Greeley, Colo.
Alps, George W	Loveland, Colo.
Archer, Lois O	Greeley, Colo.
Armstrong, Margaret	Greeley, Colo.
Batschelet, Ivyl	Panora, Ia.
Bennett, Nellie R	Greeley, Colo.
Bliss, Bessie E	Greeley, Colo.
Blunt, Edna	Greeley, Colo.
Blunt, Eunice	Greeley, Colo.

Brush, Mary	Greeley, Colo.
Buckley, Emma F	Greeley, Colo.
Bunning, Elsie L	Benkelman, Neb.
Burbank, Myrtle EI	Longmont, Colo.
Candor, Ethel	Seaton, Ill.
Cartright, Mabel	.La Junta, Colo.
Cleave, Clara	Denver, Colo.
Colvin, Ona	Pueblo, Colo.
Cook, Florence	La Junta, Colo.
Cope, Minnie M	Salida, Colo.
Cord, Oma S	.Dupuyer, Mont.
Coleman, CoraGrand	Junction, Colo.
Coleman, Alta C. (Mrs.)Stu	rgeon Bay, Wis.
Cozzens, Bertha	
Crawford, Sadie R	Broomfield, Colo.
Day, C. W	Masters, Colo.
Day, Grace T	Masters, Colo.
Dayton, Georgian	Pueblo, Colo.
Davis, Lizzie	Marino, Colo.
Davis, Edith W	.Johnstown, Pa.
Dale, Dora	.Greeley, Colo.
Dillman, Carrie	Cheyenne, Wyo.
Doull, Elizabeth	Denver, Colo.
Donahue, Jessie	Pueblo, Colo.
Douglas, Edith S	Denver, Colo.
Douglass, Russie	Mexico, Mo.
Doane, Maude S	Fairfax, S. D.
Dolan, Margaret	Leadville, Colo.
Elliott, Caroline	.Brighton, Colo.
Elliott, Elizabeth	.Brighton, Colo.
Eldridge, Eva	Denver, Colo.
Folson, Lottie L	.Durango, Colo.
Frost, Julia	Aspen, Colo.
Gilbertson, EthelFor	rt Morgan, Colo.
Gilliam, Edith	.Collbran, Colo.
Hagerty, Emma	Ouray, Colo.
Hamm, Anna	Saguache, Colo.
Hawke, Julia	Pueblo, Colo.
Horton, Harrie DCrip	ple Creek, Colo.

Hogue, Rose MSalida,	Colo.
Holthusen, Minnie CDenver,	Colo.
Hull, Cora B	Colo.
Hutchinson, GraceDenver,	Colo.
Hooper, Dorothy PSugar City,	Colo.
Ingersoll, NettieDelta,	Colo.
Jones, KatharineStratton,	Neb.
Jones, BessieTelluride,	Colo.
Johnson, Josephine	Colo.
Johnston, Rhoda P. (Mrs.)	an, O.
Kauffman, Hattie RGreeley,	Colo.
Kelsey, WheelerFort Lupton,	Colo.
Kerr. Bertie M	Colo.
Lakin, IreneSalt Lake City,	Utah.
Lawrence, EdnaGreeley,	Colo.
Lee, MabylGreeley,	Colo.
Lewis, Ella MLoveland,	Colo.
Lincoln, ClaraEaton,	Colo.
Loyd, ElizabethGreeley,	Colo.
Mackinder, Milo MCripple Creek,	Colo.
Madden, Thomas EWuskogee,	I. T.
McArthur, JessieDenver,	Colo.
McDonald, J. CharlotteKokomo,	Colo.
McDonald, MollieLeadville,	Colo.
McKeon, MadgeDenver,	Colo.
McMurphey, JessiePueblo,	Colo.
Mead, LexieGreeley,	Colo.
Meddins, W. C. P	Colo.
Merrill, Ada MLeadville,	Colo.
Miller, GraceDenver,	Colo.
Morey, JessieBrush,	Colo.
Mosier, LeilaRico,	Colo.
Mulford, RachelGreeley,	Colo.
Navlor, LenaLoveland,	Colo.
Nelson, JosephineDenver,	Colo.
Nelson, Lena MCanon City,	, Colo.
Niemeyer, Blanche Evans,	Colo.
Oldham, EthelLas Animas,	Colo.
Patterson, BessieGreeley,	Colo.

Peebler, Helen GNelson, Ne	b.
Perry, GeraldineLittleton, Col	lo.
Perham, Flora EDenver, Col	lo.
Pendrey, Alice EDenver, Col	lo.
Pratt, FloraLoveland, Col	
Ramsay, L. FernDenver, Col	lo.
Ramsey, SusieGreeley, Col	lo.
Randall, ClarenceGreeley, Col	lo.
Reid, PearlGreeley, Col	lo.
Remington, KatharynFairplay, Col	lo.
Roberts, Ethel AMinden, Ne	
Roberts, Mary OMinden, Ne	eb.
Rooney, Anna CFairfield, V	
Russell, MabelAspen, Col	lo.
Roup, George WRye, Co.	
Said, NettiePueblo, Co.	lo.
Sanborn, GladysGreeley, Col	
Sanborn, RomaGreeley, Col	lo.
Scott, Bertha LGreeley, Col	lo.
Scott, EthelAspen, Col	10.
Shumate, Letha LRocky Ford, Col	
Singer, Harriett HGreeley, Col	lo.
Smith, AlmaLongmont, Col	lo.
Smith, Carrie TGreeley, Col	lo.
Stephenson, ElizabethFlorence, Col	
Stevens, Laura CDenver, Col	lo.
Snyder, E. TyndallGreeley, Col	
Sutherland, Mary LGrand Ledge, Mic	h.
Sullivan, Irene LGreeley, Col	lo.
Taylor, LauraFort Collins, Col	
Templeton, HeleneNelson, Ne	èЪ.
Thedinga, Mary EColorado Springs, Col	
Thomas, ThurzaGreeley, Col	
Trotter, MabelleOrdway, Col	
Twist, Nellie MGreeley, Co.	
Wetzel, George LCurtis, Ne	
Wetzel, FayCurtis, Ne	
Williams, Owen ASilver Plume, Col	
Winsor, AnnieTrinidad, Col	Ю.

Wilson, Blanche FEaton,	Colo.
Worley, James HAkron,	Colo.
Worley, VictorAkron,	Colo.

SOPHOMORES—14.

Austin, I	Edna	Stevens,	Neb.
Baker, N	Tellie A	Alma,	Colo.
	Cora		
Campbell,	, Nola	Monterallo	o, Mo.
Cuney, N	Vannie I	Wray,	Colo.
Daniels,	Grace	Telluride,	Colo.
Hiltman,	Annie	Westcliffe,	CoTo.
Jennerick	, Burdella	Brighton,	Colo.
Jenkins,	Marie	Denver,	Colo.
Johnson,	Mamie	Delta,	Colo.
Little, Ze	elma	Beulah,	Colo.
Phillips,	Pansy	.Pagosa Springs,	Colo.
Stewart,	Tinnie	Greeley,	Colo.
Taylor, I	Elizabeth	Peyton,	Colo.

SPECIALS—30.

Barlow, Lillian	Allegan, Mich.
Beechler, Achasa	Butler, Ind.
Call, Georgia B. (Mrs.)	Greeley, Colo.
Cassidy, Eva	
Carter, Elizabeth (Mrs.)	
Croswell, T. R. (Mrs.)	
Currier, Hazel F	
Currier, Warren	
Davis, Blanche H. (Mrs.)	Greeley, Colo.
Doten, Elizabeth	Greeley, Colo.
Duncan, Anna	Greeley, Colo.
Goodman, S. M. (Mrs.)	Greeley, Colo.
Hawes, M. Moneta	Greeley, Colo.
King, R. W. (Mrs.)	Greeley, Colo.
Lemmon, Zella E	Greeley, Colo.
Lindgren, Freda	Brighton, Colo.

McKelvey, Vernon (Mrs.)	Greeley,	Colo.
McCutcheon, John (Mrs.)		
Mead, Mildred		
O'Neal, T. H. (Mrs.)		
Onstine, Eulala		
Petty, Evelyn (Mrs.)		
Petrikin, J. M. B. (Mrs.)		
Porter, Mildred		
Rigney, Minnie	Greeley,	Colo.
Scott, May	Greeley,	Colo.
Stockton, Guy (Mrs.)		
Sweeney, Mary F	Buena Vista,	Colo.
Wood, Lou (Mrs.)	Mancos,	Colo.
Woodbury, May L	Greeley,	Colo.

HIGH SCHOOL DEPARTMENT.

ELEVENTH GRADE-22.

Adams, Roxie.
Alexander, Ray.
Baldwin, Fred.
Beardsley, Eugene.
Bodfish, Gertrude.
Buchanan, Lou.
Carver, Emma.
Cummings, Josie.
Ellis, Ralph.
Hall, Clifford.
Kendel. J. C.

Lindgren, Freda.
Morrison, Maggie.
McDonald, Annie.
McFarland, Rachel.
Norris, Luella.
Proctor, Emily.
Robb, Pearl.
Rutt, Ray.
Sibley, Blanche.
Snook, Harry.
Ward, Olive.

TENTH GRADE-52.

Alps, Rosa. Abbott, Vivian. Balch, Lee. Benton, John. Bauer, Conrad. Carter, Mamie. Carver, Minnie. Crone, Lizzie. Cheese, Cora. Dean, Edna. Doke. Carrie. Draper, Everet. Ellis, Edith. Ferril, Lyda. Foot, Amv. Finch, Myrtle. Gardner, Ada. Hall. Mabel. Herriott, Mary. Hoffman, Pearl. Hoffman, Ethel. Huffman, Lillie.

Lundy, Alpha. Midgett, Alma. Madden, Frank. McGill, Will. Nevitt, Zoe. Onstine, Edna. Oliver, Marv. Pechin, Everett. Pike, Jennie. Reid, Boyd. Rhodes, Edith. Roberts, Abbie. Sanford, Margaret. Schroeder, Helen. Shull, Beulah. Sibley, Winnifred. Sisk, Mamie. Smith, Gladys. Titus, Ella. Teas, Elsie. Tummon, Allene. Trotter, Mabelle.

Huffman, Verner. Johnson, Edwin. Kellogg, Pearl. Laughrey, Maude.

Wille, Rose. Wilkinson, Mabel. Wylie, Eva. Underwood, Mabel.

NINTH GRADE-63.

Armstrong, Nellie. Atkinson, Ernest. Albee, Ida. Barry, Lois. Baker, Pauline. Benton, Lewis. Baab, Henry. Bly, Winnie. Brake, Hallie. Bauer, David. Camp. Leo. Churchill, Isabell. Cook, Alfaretta. Cobb, May. Collins, Mabel. Cornelius, Georgia. Comer, Robert. Clark, Julia. Davis, George. Dean, Ivy. Deffke, Frank. Edgar, Ellis. Elliott, Maynard. Fagerburg, Aaron. Fisher, Carl W. Fagerburg, Ernest. Garfield, Sidney. Griffiths, Hannah. Hedgpeth, George. Hedgpeth, Lena. Hiatt, Grace. Hiatt, Paris.

Hale, Bert. Hicks, Dessie. Hubert, Guy. Jackson, Samuel. Laughrey, Leona. Lincoln, Allen. Lohr, Charles. Miller, Joe. Miller, Mamie. Mosier, Ethel. Mullen, Jennie. Nelson, Ella. Newland, Ocie. Patterson, May. Pechin, W. E. Randall, Homer. Royce, Maude. Roberts, Lester. Rosenbaum, William, Smith, Clinton. Stephens, Joe. Sylvester, Rowland. Sylvester, George. Sweet, Vida. Vaughn, May. VanOsdall, Stanley. Waters, Laura. Warner, Martha. Warner, Ruth. Waite, Nellie. Williams, Emery.

GRAMMAR DEPARTMENT.

EIGHTH GRADE-32.

Archibald, Allie, Bly, Walter. Brown, Grace, Baker, Georgie. Benton, Ralph. Barry, Susie. Crawford, Edna. Crawford, Ada. Day, Fred. Foote. Dewey. Eberly, Grace. Elliott, Evan. Finch. Lester. Jay, Vernon. Johnston, Gordon. Jackson, May.

Kellogg, Mina. Kyle, Homer. Lohr, Rov. Michael, Johsua. Miller, Joseph. Miller, Mattie. Morrison, Lulu. Noffsinger, Adelia. Neynaber, Rosalie. Pier, Harold. Putney, Maud. Putney, Floss. Rovce, Artie. Smith, Clindon. Vanaken, Earl. Hedgpeth, George.

SEVENTH GRADE-36.

Alexander, Edith. Billings, Mildred. Baldwin, Myrtle. Beardsley, Edith. Brockway, Lewis. Buchanen, Clemmie, Clegg, Belva. Cobb. Ruth. Crawford, Charles. Conner, Ruby, Eberly, Ruby. Foote, Lee. Hobson, Hattie., Ireland, Clarence. Ireland, Clyde. Lundy, Bernard. Lancendorf, Hattie. Lashell, Kenneth.

Leininger, Earnest. Miller, Earl. McCreery, Mildred. Morris, Cedwig. Miller, John. Nevnaber, Hedwid. Noffsinger, Martin. Patterson. Ethel. Patterson, Bertha. Pattee. Paul. Royce, Artie. Smith, Cora. Sharritt, Daisy. Stephens, Dan. Thompson, Carrie. VanRosenburg, Charles. Winslow, Allyn. Youngclaus, Percy.

SIXTH GRADE-28.

Barnes, Ralph.
Billings, Carrie.
Bradley, Ethel.
Brockway, Ada.
Cobb, George.
Cunningham, Anna.
Cunningham, Nellie.
Day, Robert.
Elliott, Vernett.
Evans, Lawrence.
Ewing, Horace.
Finch, Clarence.
Harrison, Gladys.
Houghton, Vera.

McClenahan, Stella.
Michael, Ida.
Mullen, Vetice.
Paine, Velma.
Pier, Stanhope.
Roney, John.
Roney, Philip.
Sandy, Jesse
Sheeley, Clayton.
Sheeley, Lula.
Thompson, Laura.
Wearin, Fern.
Weikert, Hallie.
Werkheiser, Ola.

FIFTH GRADE-29.

Archibald, Ray.
Beardsley, Inez.
Bly, Hazel.
Bradley, Rosa.
Crawford, Clarence.
Davis, Vinson.
Douglass, Eulalia.
Ebberly, Lloyd.
Erickson, Arthur.
Finch, Callie.
Ling, Bessie.
Miller, Lillian.
Miller, Lois.
Morris, Ruth.
Morrison, Albert.

Munce, Clara.
Nelson, Willie.
Ovesen, Theodore.
Rogers, Francis.
Sautter, Berry.
Shearer, Harlan.
Stewart, Bessie.
Swanson, Harry.
Swanson, Lela.
Swanson, Lois.
Tegtman, Mary.
Thompson, Ida.
Vail, Efton.
Williams, Lloyd.

PRIMARY DEPARTMENT.

FOURTH GRADE—32.

Anderson, Axil. Berry, Louis. Blaney, Violet. Downard, Inez. Downard, Russel. Davidson, Chief. Erickson, Arthur Evans, Stella. Farr, Gladys. Gates, Frank. Harrison, Benjamin. Holland Dale. Houghton, Evelvn. Jacobsen, Hans. Johnson, Jack. LaShell Anna.

Michaels. Charlie. Nelson, Blanche. Newland, Rollie. Phelps, Mattie. Putney, Marie. Roseman, Fletcher. Sandy, Clyde. Sears, George. Steward, Hazel. Swanson, May. Tell, Sylvia. Turk, Iva. Waite, Earl. Wilmarth, Alta. Winslow, Marvin. Werkheiser, John.

THIRD GRADE-30.

Anderson, Fritz.
Benton, Mabel.
Billings, Gordon.
Davidson, Lulu.
Craig, Elizabeth.
Crawford, Myrtle.
Evans, Willie.
Elliott, Harry.
Jacobson, Frieda.
Johnston, Jack.
Larson, Mary.
Leonard, June.
Lofgren, Adolph.
Loeurs, Jessie.
Muncy, May.

Nelson, Burns.
Nelson, Sadie.
Newton, Charles.
Patterson, Howard.
Pier, Josephine.
Stevens, Louie.
Stewart, George.
Tightmann, Louise.
Turk, Florence.
Waite, Rosie.
Werkheiser, Ruth.
Winslow, Dina.
Woods, Forest.
Parkison, Bell.
Kula, Libbie.

STATE NORMAL SCHOOL

SECOND GRADE-26.

Anderson, Allen.
Anderson, Luella.
Archibald, Sylvia.
Biegler, Charles.
Brynn, Dora.
Craig, Fred.
DeWald, Francis.
Elliott, Inez.
Elmer, Helen.
Gibson, Chester.
Green, Hazel.
Herring, Malcolm.
Hill, Ethel.

Houghton, Jeannette.
Jacobsen, Fredia.
Klug, Raymond.
Leonard, LeFon.
Lofgren, Hattie.
Marshall, Stanley.
Phelps, Lulu.
Sandy, Fay.
Sandy, Fred.
Tell, Loretta.
Workheiser, Hattie.
Winslow, Pearl.
Brooman. Clyde.

FIRST GRADE-37.

Adams, Donald. Anderson, Albert. Anderson, Annie. Barrager, Grace. Benton, Elbert. Biegler, Charles. Billings, Ada. Bly, Lucius. Brynn, Edward. Coleman, Leila, Coleman, Arthur. Coleman, Macina. Craig, Ethel. Davidson, Mabel. Day, George. Elmer, Colgate. Gates, Edward. Gibson, Chester. Henring, Keller.

Jepson, Evelyn. Kimrey, Charles. Kula, Emil. Kula, Willie. Loemus, Sidney. McAfee, Blair. McClenahan, Elizabeth, Michael, Hannah. Miller, Jeannette. Nelson, Mary. Newton, Frances. Oberg, Hazel. O'Neil. Elizabeth. Tegtman, Edward. Tegtman, Ernest. Turk, Edward. Werkheisir, Ida. Winslow, Bryan.

KINDERGARTEN-66.

Anderson, Carl. Anderson, George. Barber, Jennings. Calbrins, Sevilla. Calbrins, Harvey. Candlin, Victor. Crabb, Wilbur. Crabb, Wendell. Craig. Willie. Crawford, Kenneth. Crist. Paul. Croll. Ellsworth. Day, Horace. Delano, Bert. Dietrich, Carrie. Dressor, Lucy. Ewing, Bryan. Erickson, Clara. Faulkner, Harry. Funk, May Gleadowing, Dean. Gates, Agnes. Gibbeon, Lota. Gross, Libbie. Hays, Harold. Heuring, Francis. Houghton, Albert. Howard, June. Jackson, Dorothy. Johnson, Bevy. Johnson, Lustella. Kimrey, Chan. Kirk, Willie.

Lvon, Mildred. Lowe, Florence. Mullen. Paul. McCutcheon, Marjorye. McLain, Paul. McArthur, Lawrence. McKelvey, Macy. Nusbaum, Nelda. Nevwaber, Clarence. O'Berg, Earl. Page, Harold. Parker, Elwin. Phelps, Archie. Pier, Clark. Rothschild, Donald. Robinson, Ruth. Root. Bessie. Shrader, Leah. Smith, Charlotte. Stonebring, Fay. Smith. Dana. Thompson, Harold. Thompson, Marian. Waddington, Inez. Waters, Dorothy. Waite, Clarence. Ward, Raymond. Wilkinson, Bryce. Williams, Ulys. White, Laura. Winslow, Marv. Wolf. Raymond. Woods, Roy.

SUMMARY OF ATTENDANCE. NORMAL DEPARTMENT.

SENIORS. Females 86 Males 7 93 TUNIORS. Females118 131 SOPHOMORES Females 14 14 SPECIALS. Females 20 Male I 30 POST GRADUATES. Females Male I Total 272 TRAINING SCHOOL. High School Department: Tenth Grade..... 52 Ninth Grade..... 63 137 Grammar Department: Eighth Grade..... 32

125

Primary Department:		
Fourth Grade 32	2	
Third Grade 30)	
Second Grade	5	
First Grade	,	
	- 125	
Kindergarten Department	66	
		453
Grand total		725

ALUMNI.

OFFICERS.

	Churchill	
John R. Bell Laura Snyder.		Vice-PresidentSecretary.
Vernon McKe	lvey	Treasurer.

DIRECTORY.

POST GRADUATES.

Fenneman, Mrs. Sarah Glisson	Boulder, Colo.
Heath, Herbert	Lake City, Colo.
Hewett, E. L	E. Las Vegas, N. M.
Jackson, O. E	
Keightley, Annie K	
Kendel, Elizabeth	Greeley, Colo.
Ladd, Dora C	
Miles, Mrs. Cornelia	
Mooney, William B	Rye, Colo.
Phillips, Eleanor	Greeley, Colo.
Reid, Lois E	Greeley, Colo.
Stockton, LeRoy	Eaton, Colo.
Ward, John J	Castle Rock, Colo.
CLASS OF 1891	

Berryman, Eliza E. (Mrs. Howard)	Denver, Colo.
Bliss, Clara S. (Mrs. Ward)	Greeley, Colo.
*Bybee, W. F	.Colorado Springs, Colo.
Evans, Bessie B. (Mrs. Edgerton)	Paonia, Colo.
Fashbaugh, Carrie E	Evans, Colo.
Hardcastle, Amy B. (Mrs. Davidson)	Fort Collins, Colo.
John, Grant B	Denver, Colo.
Lincoln, Generva	Utah
*Montgomery, Jessie	

^{*}Deceased.

CLASS OF 1892. Van Craig, Edna E. (Mrs.) Dresser, Helen C. (Mrs. Dressor) Jones, Edith Helen Jones, Winifred Lynch, Andrew R.	Eaton, Colo. nte Vista, Colo. Greeley, Colo.	
Dresser, Helen C. (Mrs. Dressor) Jones, Edith Helen Jones, Winifred Lynch, Andrew R.		
McFie, Mabel (Mrs. Miller)	Cheyenne, WyoDenver, ColoDenver, Colo. Silverton, Colo. aquerque, N. MEvans, Colo. Springs, ColoElbert, ColoDenver, ColoGreeley, Colo. Ruby Hill, Nev. h Denver, ColoDenver, ColoDenver, ColoDenver, ColoDenver, ColoDenver, ColoDenver, ColoDenver, Colo.	
CLASS OF 1893.		
Bybee, Carrie S. Colorado Dace, Mary (Mrs. Farnsworth) For Dunn, Roaslie M. Heath, Herbert G. If Hewett, Edgar L. E. La Hewett, Cora W. (Mrs.) E. La Houston, George M. Jacobs, Mary Fay (Mrs. Lunt) *Johnson, Hattie L. (Mrs. Wallace) Knight, Lizzie M. MacNitt, E. Alice (Mrs. Montgomery) If McLain, Minnie E. For Marsh, Mary B. Ca Nixon, Alice M. (Mrs. Jacobs)	t Morgan, Colo St. Louis, Mo Ake City, Colo. s Vegas, N. M Greeley, Colo Eaton, Colo Denver, Colo Evans, Colo ongmont, Colo. t Collins, Colo. non City, Colo.	

^{*}Deceased.

Pearce, Stella	Cripple Creek, Colo.
Priest, Lee	Cripple Creek, Colo.
Seed, Stella H	
Stockton, J. LeRoy	
Struble, Lizzie (Mrs. F. A. Cole)	
Thomas, Cora M	
Varney, Julia A	
Walter, Clara B	
Wheeler, B. B.	
Tribotos, B. Billian	
CLASS OF 1894.	
Bond, Dell	Dennison, Ia.
Burnett, Ruth	Mendota, Ill.
Catherwood, Grace A	Boulder, Colo.
Clark, Charles E	
*Coffey, Gillian	
Cordes, Carrie (Mrs. Loftiss)	
Creager, Katie (Mrs. Bullock)	Greeley, Colo.
Day, Nellie (Mrs. Tolman)	
Delbridge, Eloise (Mrs. Petrikin)	Windsor, Colo.
Durkee, Alice (Mrs. Rockafellow)	Canon City, Colo.
Freeman, Maude (Mrs. Felton)	Greeley, Colo.
Gardiner, Julia	
Gass, Maud	
Lewis, Lottie (Mrs. Davis)	Central City, Colo.
Lynch, John	Silverton, Colo.
Melvin, Pearl (Mrs. Ruthledge)	Belleville, Tex.
*McGhee, May (Mrs. Winzer)	Cripple Creek, Colo.
Merrill, Louisa A	Denver, Colo.
Messenger, Edna	Boulder, Colo.
Nauman, Minnie (Mrs. Lauritsen)	Cambridge, Neb.
Peters, Anna	Trinidad, Colo.
Rank, Margaret	Central City, Colo.
Robinson, Anna	Eaton, Colo.
Severance, Dora	Platteville, Colo.
Shumway, William	Denver, Colo.
Trehearne, Beatrice	Denver, Colo.

^{*}Deceased.

^{*}Deceased.

Snyder, E. R Stratton, Ella E Synder, Cecil E Uhri, Sophia Woodruff, Myrna Wyman, Ree (Mrs. Moyer)	Cripple Creek, Colo. Las Animas, Colo. Canon City, Colo. .Colorado Springs, Colo.
CLASS OF 1896.	
Agnew, Minerva (Mrs. Brotherton) Ault, C. B. Bell, J. R. Berger, Florence (Mrs. Miller) Bliss, Lillian M. Boyd, Sela M. Briggs, Jennie M. (Mrs. Mayo). Cameron, William F. Cameron, Agnes (Mrs. Palmer). Collom, Mattie (Mrs. Singleton). Dittey, Mollie. Donahue, J. Leo. Graham, Kate (Mrs. Nierns). Hamilton, Ida M. (Mrs.). Hanks, Alberta. Hollingshead, C. A. Howard, Florence. Howard, Wellington. James, Annie (Mrs. Preston). Jamison, Grace (Mrs. Rowe). Kendel, Elizabeth. Mathews, Minnie V. Newman, Winnifred (Mrs. Scoville). Norton, Nell (Mrs. Lawyer). Paul, Isabel (Mrs. Clayton). Patton, Mabel. Pollock, Emma. Probst, Emma. Shull, Grace (Mrs. Eichmann). Smith, Luna. Stevenson, Audrey.	Goldfield, Colo. Denver, Colo. Greeley, Colo. Denver, Colo. Greeley, Colo. Denver, Colo. Greeley, Colo. Longmont, Colo. Ashland, Ore. Canon City, Colo. Pearl, Idaho Colorado Springs, Colo. Montrose, Colo. Salida, Colo. Denver, Colo. Greeley, Colo. Delta, Colo. Platteville, Colo. Greeley, Colo. Pueblo, Colo. Denver, Colo. Elwell, Colo. Denver, Colo.

CLASS OF 1897.

Adams, Helen	New York City
Benson, Franc V. (Mrs. Lanham)	Loveland, Colo.
Brownlee, Sylvia	Rocky Ford, Colo.
Buffington, Lulu (Mrs. Hogan)	Kokomo, Colo.
Burns, T. E	Fort Lupton, Colo.
Dowell, H. L	Greeley, Colo.
Ellis, Carrie E	Erie, Colo.
Guynn, H. G	Smithton, Pa.
Hadden, S. M	Greeley, Colo.
Hamilton, Jessie M	Denver, Colo.
Hammond, Eva V. (Mrs. Blood)	Denver, Colo.
Hersey, Rose	Denver, Colo.
Hinkley, Anna C. (Mrs. Mathis)	Denver, Colo.
Hoch, Lillian E	Montclair, Colo.
Holaday, Minnie (Mrs. Rathmell)	Ouray, Colo.
Holliday, Maud (Mrs. Bell)	Denver, Colo.
Ingersol, May	Redlands, Cal.
Iones B. Ida (Mrs. Stockton)	Greeley, Colo.
Kendel, Juanita	Greeley, Colo.
King, Alpha E	.Rocky Ford, Colo.
Knapp, Edith A	Lamar, Colo.
Lockett. Margarette	Saguache, Colo.
McDonald, R. A	Buena Vista, Colo.
McKinley, Hattie (Mrs. Shaffer)	Idaho Springs, Colo.
McLeod, Carrie	Canon City, Colo.
Newell. Agnes (Mrs. Coston)	Boulder, Colo.
Putnam, Jennie (Mrs. Lyford)	Greeley, Colo.
Rudolph, Victoria (Mrs. Eldred)	Cripple Creek, Colo.
Sanborn, Mabel (Mrs. Marsh)	Platteville, Colo.
Slatore, Nelson (Mrs. Thompson)Col	lorado Springs, Colo.
Smith, Cora E. (Mrs. McDonald)	Buena Vista, Colo.
Steans, Henry G	Leadville, Colo.
Stevenson, Eleanor (Mrs. Kittle)	Greeley, Colo.
Stockton, Guy C	Greeley, Colo.
Thompson, Andrew WCo	lorado Springs, Colo.
Walker F A	Del Norte, Colo.
Wheeler, Gertrude E. (Mrs. Bell)	Bakersfield, Cal.
White, Esther F. (Mrs.)	Canon City, Colo.

Wilkinson, Bessie M	Pueblo, Colo.
Wilson, Edith	
Witter, Stella (Mrs. Kerlee)	
work, C. M	
Wright, Olive	
Young, Kate (Mrs.)	
	, , , , , , , , , , , , , , , , , , , ,
CLASS OF 1898.	
Amsden, Elmer E	Durango, Colo.
Ashley, Helen M	Cheney, Wash.
Bartels, Bina	Pueblo, Colo.
Bryant, Fannie	Denver, Colo.
Burgess, Edith (Mrs. Stockton)	Eaton, Colo.
Butler, May (Mrs. Wiles)	Trinidad, Colo.
Butscher, Louis C	
Carlson, George A	Boulder, Colo.
Clark, Fred W	
Coover, Carrie E. (Mrs.)	Palo Alto, Cal.
Coover, J. E	
Cronkhite, Theodora	Fort Lupton, Colo.
Delbridge, Wychie (Mrs. Desch)	Brighton, Colo.
Dolan, Alice	Leadville, Colo.
Downey, Elijah H	Telluride, Colo.
Farmer, Grace (Mrs. Sweetser)Lihue, Kar	nai, Hawaiian Islands.
*Fennell, Anna	Greeley, Colo.
Fowler, O. S	Boulder, Colo.
Harrison, Virginia	Canon City, Colo.
Hawes, Mary M	Greelev. Colo.
Hetrick, Grace C. (Mrs. McNabb)	Denver, Colo.
Hodge, Louise W	Pueblo, Colo.
Hogarty, Michaella (Mrs. Carpenter)	Greelev. Colo.
Howard, Ethel	Greeley, Colo.
Howard, Sadie (Mrs. Johnson)	Denver, Colo.
Howett, Edwin L	Rocky Ford, Colo.
Johnson, Minnie	Leadville, Colo.
Kridler, Grace (Mrs. Haff)	.Cripple Creek, Colo.
Llewellyn, Sarah (Mrs. Snyder)	San Jose, Cal.

^{*}Deceased.

Lory, Charles ACripple Cre	ek, Colo.
McCracken, Mary (Mrs. Steans)Leadv	ille, Colo.
McKeehan, CoraCripple Cre	ek, Colo.
Montag, Ida CCon	mo, Colo.
Morehouse, GenevaDenv	ver, Colo.
Nash, MargaretGeorgetow	vn, Colo.
*O'Brien, Emma LFort Colli	ns, Colo.
Putnam, Nellie (Mrs. Moseley)Fort Morg	an, Colo.
Reeder, John MBuena Vis	sta, Colo.
Richards, Carrie LPueh	lo, Colo.
Riddell, FannieDenv	er, Colo.
Ross, Hettie M. (Dr.)North Denv	
Scanlon, MaryLyc	ns, Colo.
Sibley, Bella B. (Mrs.)Greel	
Smith, Helen Fay (Mrs. Duluth)Denv	er, Colo.
*Stebbins, Helen H. (Mrs. McLeod)Leadvi	lle, Colo.
Stevenson, Mildred	ou, Colo.
Tate, Ethel HLal	cin, Kan.
Taylor, Nellie A. (Mrs. Akin)Fort Colli	ns, Colo.
Thomas, HelenGreek	
Thomas, KathrynColorado Sprin	
Van Horn, GeorgeLovela	nd, Colo.
Waite, Vesta M. (Mrs. Daeschner)Bright	on, Colo.
Watson, OlaLittlete	
White, Walter (Dr.)Denv	
Wilkins, Emma TTimna	th, Colo.
Williams, Mary ERidgwa	
Wintz, ClaudiaCripple Cree	ek, Colo.
Zimmerman, GeorgeAntoni	to, Colo.
CLASS OF 1899.	
Amick, M. Ethel	ty, Colo.
Anderson, Emma L. (Mrs. Lyon)Greel	
Anderson, Myra MCripple Cree	
Bartels, Harriet B. (Mrs. Robinson)Leadvil	
Bashor, Sarah ELongmor	
Braucht, Frank EMan	

^{*}Deceased.

Burnett, Fannie	Gunnison,	Colo.
Camp, Archibald L	Leadville,	Colo.
Campbell, Florence E	Granite,	Colo.
Clonch, Minnie B. (Mrs. Decker)	.Crested Butte,	Colo.
Curran, Katie		
Dare, Adela F. (Mrs.)		
*DeWeese, Luella (Mrs.)	Pueblo,	Colo.
Dill, Victoria M	Racine,	Wis.
Dingman, Jennie K	Pueblo,	Colo.
Fleming, Guy B		
Graham, Mary M		
Gregg, Florence E	Pueblo,	Colo.
Gregg, Maud C		
Hammersley, Mabel		
Harrison, Lucian H	· ·	
Heath, Edith V		
Hersey, Nellie R. (Mrs. Luper)	Evans.	Colo.
*Huffman, E	Evans.	Colo.
Kellogg, Gertrude F	Rocky Ford,	Colo.
Kendall, Zella A	Denver,	Colo.
Kendel, Arthur I	Greelev.	Colo.
Kimball, Effie M	Greelev.	Colo.
Law, Daisy N	Eaton.	Colo.
Law, Nona J	New Windsor.	Colo.
Long, Olive	Lafayette,	Colo.
Lundy, Granville E	Evans,	Colo.
McCord, Emma D. (Mrs. Weaver)Col-	orado Springs,	Colo.
McIntosh, Edith L	Telluride,	Colo.
McLellon, E. Irene (Mrs. Bledsoe)	Bisbee,	Ariz.
McLeod, Mary C	Leadville,	Colo.
Manifold, W. H	Lincoln,	Neb.
Miller, Mary F. (Mrs.)	Denver,	Colo.
Morehouse, Florence A. (Mrs. Berry)	Lamar,	Colo.
Newby, Florence	Fort Lupton,	Colo.
Noel, Maud (Mrs. McMillen)	LaSalle,	Colo.
Patterson, Daisy P	Santa Fe. N	J. M.
Poirson, Henriette (Mrs. Dille)	Greeley,	Colo.

^{*}Deceased.

Pollock, Rose M. (Mrs. Jeter)
Williams, Lizzie F. (Mrs. McDonough)Las Pinos, Colo.
Wise, Effie MCanfield, Colo.
CLASS OF 1900.
Albee, Emma. Roggen, Colo. Ashback, Margaret (Mrs.) Durango, Colo. Bliss, Nellie M. Greeley, Colo. Bresee, Minnie. Mattoon, Ill. *Brown, L. E. Boulder, Colo. Calder, Henrietta. Canon City, Colo.
Churchill, Isabella (Mrs.)
Cooper, Theda A. Denver, Colo. Cooperrider, A. O. Boulder, Colo.

Cornell, Hattie (Mrs. Goodfellow)Denver,	Colo
Danielson, CoraDenver,	Colo
DeVine, Elsie (Mrs.)	Colo.
Devine, Elsie (Mrs.)	Colo.
Doyle, Mabel	Colo.
Evans, Emma	Colo.
Ellis, AddaLaSalle,	Colo.
Fagan, JennieBerthoud,	Co10.
Fowler, RubyLeadville,	Co10.
Frink, Marguerite RLaSalle,	Co10.
Gibson, MildredLoveland,	Co10.
Goodale, Nellie	
Grout, Lizzie MPueblo,	
Hughes, AdellaTrinidad,	
Hughes, IdaGeorgetown,	
Imboden, J. WLa Jara,	
Jamison, ReaPueblo,	
Jones, JennieMontrose,	
Kendel, AliceLeadville,	
Kenwell, Joseph CArvada,	Colo.
Kersey, Margaret (Mrs. Cahill)Leadville,	Colo.
Ketner, SarahFort Collins,	
Latson, Elmer	
Lewis, W. ASapinero,	
Lowe, Elizabeth FCentral City,	
Lowther, LauraCanon City,	
Markuson, MarthaSterling,	Colo
Mayne, FannieLamar,	Colo.
McKelvey, EvaNew Windsor,	Colo.
McNee, ElizabethKersey,	Colo.
Melville, Bessie LLas Animas,	
Mulnix, Sadie SPueblo,	Colo.
Neel, Ora	
Nutting, DrusillaLeadville,	
O'Boyle, Lila	
O'Connell, Mamie	
Olson, Mamie	
Orr, IrmaLaSalle,	-
Poland, BelleLas Animas,	Colo.

*Probst, Rose. Denver, Resor, Virginia. Canon City, Riek, Meta (Mrs. Irving) Victor, *Robbins, W. F. Highland Lake, Romans, Ab. H. Boulder, Sarell, Jessie (Mrs. Rudd) Jamestown, Schmidt, Kari. Denver, Searles, Nina (Mrs. Kendel) Eaton, Seybold, Bertha. Durango, Stockdale, Martha. Delta, Smith, Frances. Cripple Creek, Smith, Olive. Greeley, Taylor, Hazel. Durango, Veniere, Cecilia. Night Hawk, Warning, G. A. Grand Junction, Waters, Eva. Brush, Williams, S. D. Rico, Williamson, Lucy (Mrs. Griffee) Emporia, Wilson, Marie (Mrs. Benham) Rockford	Colo.
Wood, CarolynFort Collins,	
CLASS OF 1901.	
Adams, Mary	Colo. Colo. Colo. Colo. Colo. Colo. Colo. Colo. Kan. Colo. Colo. Colo. Colo. Colo.

^{*}Deceased.

Dempsey, NettiePueblo, Colo	0.
Dugan, JuliaDurango, Cole	0.
Edwards, MabelGreeley, Col-	0.
Filkins, GraceGreeley, Cole	
Gibbs, Elizabeth	0.
Graham, Melcena	0.
Hall, AgnesRico, Col-	
Hamm, ElsieLeadville, Col-	0.
Harrington, AdaLoveland, Col	0.
Henderson, AliceSalida, Col	0.
Holland, NenaFort Lupton, Col	0.
House, LouiseGreeley, Col-	0.
Jones, KatieLaSalle, Col	0.
Kesler, JosephDenver, Col	0.
Keyes, VictorFairplay, Col	0.
Kittle, HelenEaton, Col	0.
Knowlton, Charles LaSalle, Col	
Lowe, AnnaLeadville, Col	
Lundy, KatieEvans, Col	
McCarthy, MaryPueblo, Col	
McCloskey, Viola (Mrs. Waddle)Manitou, Col	0.
McCoy, AnnaDenver, Col	0.
McMullin, Edith (Mrs. Collins)Manila, P.	
McKelvey, KatharynEaton, Col	
McPherson, MattieBoulder, Col	0.
McPherson, WilliamGreeley, Col	
Merchant, MaudDenver, Col	
Morris, Florence	
Needham, CharlesWindsor, Col	0.
Norine, MaymeGrand Junction, Col	
Norton, NonaTallula, I	
O'Brien, RhodaDenver, Col	
O'Connor, CharlesBoulder, Col	
Onstine, EulaliaGreeley, Col	
O'Keefe, AgnesDenver, Col	
Parrett, KateAlcott, Col	
Peterson, HannaSilver Plume, Col	
Remington, MaymeFairplay, Col	
Robinson, AbbieBasalt, Col	0.

Robertson, Jean. Del Norte, C Schutz, Tyro. Henson, C Scott, Lucy. Eaton, C Scheffler, Josephine. Antonito, C Sellers, Gilbert. Greeley, C Snyder, Laura. Greeley, C Tefft, Ruth. Telluride, C	colo. colo. colo. colo. colo.
Veverka, MadelineE. Las Vegas, N.	
Watson, AliceLamar, C	
Welch, HattieBoulder, C	
Welch, HarryBoulder, C	
Weller, Mary	olo.
Webster, EllaLeadville, C	
Wolfenden, Anna (Mrs. Allnutt)Greeley, C	olo.
Wood, FlorenceFort Collins, C	olo.
CLASS OF 1902.	
Allen, AliceLas Animas, C	olo.
Anthony, AnnaErie, C	
Bailey, W. L	
Bowen, ClaudiaLeadville, C	
Bowman, Julia BPueblo, C	
Boylan, Daisey D	
Bracewell, Cora	
Carter, Ethel IDenver, C	
Cheeley, Ella (Mrs. Frink)Fort Lupton, C	
Coil, Lina DLa Salle, C	
Crone, John V. (Normal College)	
Day, Fannie L	
Enoch, Mary PriscillaGrand Junction, C	
Farlow, FloeLeadville, C	
Floyd, A. J. (Normal College)Trinidad, C	
Follett, Celinda G	
Fugate, IndaWalsenburg, C	
Fugate, Laura EWalsenburg, C	
Gale, Edith VDenver, C	olo.
Garcia, JamesBoulder, C	olo.
Geffs, BessieBuffalo Springs, C	olo.
Gibbons, MarcellaLeadville, C	
Green, HildaLudlow, C	olo.

Grove, Rhena M	Leadville,	Colo.
Harbottle, John	Atwood,	Colo.
Henderson, Alice	Salida,	Colo.
Hiatt, J. Frances	Denver,	Colo.
Hotchkiss, Esther	Boulder,	Colo.
Jessup, Leona (Mrs. Kesler)	Denver,	Colo.
Keightley, Anna K	Pueblo,	Colo.
Kelsey, Sofia (Mrs. Decker)	Greeley,	Colo.
Kennedy, Ethel	Windsor,	Colo.
Keplinger, Peter	lorado Springs,	Colo.
Knowlton, Richard G	Wall Street.	Colo.
Ladd, Dora	Greelev,	Colo.
Leonard, Sadie K	Severance.	Colo.
Lewis, Charlotte	Pueblo.	Colo.
Llewellyn, Mary J	Orchard.	Colo.
Lovering, Esther A	Boulder,	Colo.
Marshall, Estella D	Florence,	Colo.
Martin, Teena	Loveland,	Colo.
McNee, Jessie	Blairsburg	g, Ia.
Mitchell, Bessie	. Cripple Creek,	Colo.
Mooney, William B	Greeley,	Colo.
Mosher, Abbie	Florence,	Colo.
Moss, Eva May	olorado Springs,	Colo.
Mundee, Helen A	Silverton,	Colo.
Packer, W. R	Greeley,	Colo.
Pechin, Zadia	Windsor,	Colo.
Pendell, Dorcas M	Saginaw, I	Mich.
Porter, Della E	olorado Springs,	Colo.
Powers, Myrtle A		
Proctor, Ula		
Rankin, Bessie	Greeley,	Colo.
Reid, Lois E	Greeley,	Colo.
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Rhys, Mary G	Roggen,	Colo.
Richardson, E. Florence	Canon City,	Colo.
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Scriven, Dee M	Granada,	Colo.
Sellers, Will		
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Smith, Frank B. Thompson, Blanche. Thompson, Jettie (Mrs. McElfresh) Thompson, Nellie. Tilyou, Mabel L. Washburn, Lizzie. Welch, Fred. West, Olive. Wiedmann, D. E. Willcox, Margaret (Mrs. Baltosser) Willie, Anna (Mrs. Malonnee) Wood, Florence.	Salida, Starkville, Colorado Springs, Greeley, Greeley, Telluride, Deuel, Fruita,	Colo.
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Gruber, Mayme F		
Hayward, Lois		
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Herrick, Olive M	Cripple Creek, Colo.
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Poirson, Louise.	
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	Eaton, Colo.
Young, Charles	
Youngclaus, Emma	,
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