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**C**atalogue . . . . .

Arizona Territorial Normal School



1894-95

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CATALOGUE

—OF THE—

ARIZONA

Territorial Normal School,

—AT—

TEMPE, ARIZONA,

—FOR THE—

School Year Ending June 30, 1894,

—AND—

CIRCULAR FOR 1894-95.

## Board of Education.

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HON. F. J. NETHERTON.....	Mesa
Superintendent of Public Instruction [ <i>ex-officio</i> ].	
HON. P. J. COLE.....	Phoenix
Territorial Treasurer [ <i>ex-officio</i> ].	
REV. DANIEL KLOSS.....	Tempe
C. W. MILLER.....	Tempe
JUDGE J. F. WILSON.....	Prescott

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## Officers of Board.

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REV. DANIEL KLOSS.....	President
HON. P. J. COLE.....	Treasurer
C. W. MILLER.....	Secretary

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The regular meetings of the Board take place the first week in  
January and in June each year.

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## Board of Visitors.

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WALTER TALBOT.....	Phoenix
WILLIAM NEWELL.....	Mesa
MRS. M. G. HILL.....	Tempe

## Faculty.

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EDGAR L. STORMENT - - - - - Principal

(Graduate of Southern Illinois State Normal University. First  
President of Arizona Territorial Teachers'  
Association).

Teacher of Science and Pedagogy.

JEAN M. WOODS - - - - - First Assistant

(Graduate of State Normal School, Millersville, Pa.)

Teacher of English, History and Geography.

ELMA E. WILLIAMS - - - - - Second Assistant

(Graduate Lombard University.)

Teacher of Mathematics, Drawing and Book-keeping.

## History.

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The Arizona Territorial Normal School was established at Tempe by an Act of the Thirteenth Legislature, amended and re-enacted March 10, 1887.

The objects of the school were declared by said Act to be the instruction of persons, both male and female, in the art of teaching, and in all the various branches that pertain to a good common-school education; also to give instruction in husbandry and agricultural chemistry, in the fundamental law of the United States, and in what regards the rights and duties of citizenship.

The school has been in active operation for eight years, during which time there have attended the institution two hundred and ninety-five students, and thirty-five have been graduated, fifteen of whom have taught in the Territorial public schools since graduation. Many others who have not graduated are doing active and meritorious work in the schools.

## General Information.

### LOCATION.

The Territorial Normal School is located at Tempe, Maricopa County, on the line of the Maricopa & Phoenix Railroad.

Its situation is in a healthy locality, and in the midst of a farming community characterized by industry, thrift, good morals and good order.

### QUALIFICATIONS FOR ADMISSION.

Applicants for admission must not be less than fifteen years of age.

They must be of good morals and industrious habits.

They must be able to pass an examination showing their ability to parse the words of any ordinary sentence; to solve any problem in arithmetic up to and including common and decimal fractions; in geography to bound any State or Territory, and locate the principal rivers, cities, etc., of the world; to write a legible hand, and to read intelligently.

Applicants holding Arizona Territorial or County Certificates or Diplomas of graduation from any accredited public Grammar or High School will be admitted without examination.

Any public school in the Territory will be placed on the list of accredited schools when it is shown in a satisfactory manner that it is sufficiently thorough in instruction.

Students of the University of Arizona will be admitted without examination, and the record of work done in the University will be transferred to our books, when the record is certified to by the President of the University.

Students of the Normal School wishing to enter the University will also have the work done in the Normal School placed to their credit at the University when properly indorsed by the Principal of the Normal School.

Similar arrangements have been made with the Normal School at Los Angeles also.

Regular examinations for admission will be held on the first and second days of each term.

For the accommodation of students entering later in the term special examination will be given on Monday of each week.

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#### ACCOMMODATIONS.

The Normal School building is situated on a twenty-acre tract of land, and is a brick structure, sixty by seventy feet in size, and one story high. A ten-foot hall extends through the building from north to south.

Four rooms are provided, each thirty feet square.

The entrance to the hall at each end is by double doors, and windows placed at regular intervals of a few feet around the rooms afford ample light and ventilation.

The building is surmounted by a high roof, leaving a space of eight feet between the roof and ceiling. The entire structure is surrounded by a veranda twelve feet wide. Ventilators admit the passage of air in every direction, thus providing as cool a building as can be devised for this climate.

The Seventeenth Legislature, by unanimous vote, approved by the Governor of the Territory, April 7, 1893, imposed a tax of two-fifths of a mill on each one dollar of taxable property in the Territory for the purpose of providing suitable buildings for the school, the present accommodations not being sufficient. During the summer of 1894 work will be begun on the new building, and pushed as speedily as possible to completion.

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#### APPARATUS.

The school is provided with excellent apparatus for illustrating the various subjects taught, and additions

will be made to the supply of chemical, philosophical and other apparatus as the same may be needed.

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#### LIBRARY.

The Normal Library now consists of seven hundred volumes, covering the fields of history, science, education and literature. The valuable Smithsonian scientific publications have been placed in the library, and the principal educational publications are received by the institution regularly. All necessary books of reference are at the service of the students.

Students alone are allowed to take books from the building, and then only for two weeks (if called for by another student), and are held responsible for the return of the volume in good condition.

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#### MUSEUM.

We respectfully solicit the friends of education to assist us in the collection of specimens of birds, minerals, etc., also fossils and archæological specimens.

The name of the donor, the location from which the specimen was obtained, and all other particulars known, should accompany the package. All contributions should be boxed carefully, and sent by express or freight to the Normal School, Tempe.

During the last year friends of the school have given many valuable specimens. By their aid and the activity of students and teachers the school now possesses a working collection of minerals, ores, insects, Arizona plants and geological formations; many of the more common archæological remains have also been received.

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#### EXPENSES.

The average costs for books, supplies, etc., will be about \$15.00 per pupil for each year. Good board and lodging can be obtained in private families at prices ranging from \$20.00 to \$25.00 per month. By the formation



of clubs expenses can be reduced below even this amount. Many students board themselves.

Tuition is free to those who obtain an appointment from a member of the Legislature, and to those who sign a declaration that they attend the school for the purpose of preparing themselves for teaching in the public schools of Arizona. All others are charged one dollar per month.

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### GRADUATION.

In order to graduate, the student must be at least eighteen years of age, must have attended the school for a period of at least twenty-two weeks, and must pass a written examination in all the studies of the course.

If it appears from the resulting papers and the record of daily recitations and deportment that the applicants for graduation possess the learning and other qualifications necessary to teach a good common school, said persons shall receive certificates of graduation which will entitle the holders to teach a grammar school in any county in the Territory of Arizona.

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### DISCIPLINE.

In a Normal School little need be said concerning discipline.

It is expected that every pupil will exhibit in his daily conduct those qualities of head and heart which should always distinguish the earnest learner and teacher.

The ability to control others is never found in those who cannot control themselves. In accordance with this principle, the pupils will be expected so to conduct themselves as to merit the appellation of true men and women—an honor to themselves and their communities.

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### SUGGESTIONS.

It is suggested that students purchase no books until they have consulted their teachers, but it is well to bring those which they already possess.

Students desiring to enter the school should provide themselves with a recommendation from the teacher of the school which they attended last, and present the recommendation to the Principal of the Normal at the time of entrance.

We earnestly solicit teachers and County Superintendents to urge upon those who intend to become teachers the importance of entering some department of the Normal School (the pedagogical, certainly), for the sake of obtaining that helpful training, the lack of which has hampered so many of our teachers.

County Superintendents and Boards of Trustees in want of teachers are respectfully solicited to communicate with the Principal of the Normal School.

Although the primary idea of the Normal School is to prepare for the schools of the Territory a supply of teachers, trained and equipped for their work, it is also intended to furnish an opportunity to the youth of our country to secure an education beyond that possible in the grammar school, and to round out and complete the common-school system of the Territory.

The course of study in the Normal School will therefore follow that of the Public Schools in regular sequence; and pupils on completing the grammar course in accredited schools will be eligible to admittance to the Normal, and we request the School Principals to second our efforts in this direction.

To parents throughout the Territory we offer an opportunity to educate their children at home equal to that offered by other similar institutions elsewhere. We ask the people of Arizona to compare our course and work with those of other Normal Schools.

## Course of Study.

	First Year			Second Year			Third Year		
	1	2	3	1	2	3	1	2	3
Reading.....	o	o							
Geography.....	o	o	o			o			
Grammar.....	o	o	o						o
History.....	o	o					o		
Drawing.....	o	o	o						
Arithmetic.....	o	o	o	o	o				o
Spelling.....	o	o	o						
Writing.....			o						
Rhetoric.....				o					
Zoology.....				o					
Physiology.....				o					
Book-keeping.....					o				
Physics.....					o				
Botany.....						o			
School Law and Ethics.....					o				
Pedagogy.....						o		o	o
Algebra.....					o	o	o	o	o
Geology.....							o		
Geometry.....							o	o	
Chemistry.....								o	
Civil Government.....									o
Astronomy.....							o		
English Literature.....									o
Word Analysis.....						o			

o Indicates the place of study in the course.

## Remarks on Course of Study.

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The course of study has been arranged in accordance with the order of mental development, and the successive studies are intended to furnish the healthful, educative discipline which the growing mind requires in order to produce complete and distinctive character.

Believing that there is no subject of human thought which will not return large dividends in the form of mental growth to an investment of earnest, sustained labor, the course has, nevertheless, been composed of those studies which will be of practical benefit in every-day life, as well as conducive to higher intellectual ability.

The importance of following the course in the selection of work cannot be urged too strongly upon the student.

No time is lost in finishing the lower branches before proceeding to the higher, and much is gained in the way of clearer comprehension, definiteness of ideas, and more tenacious memory.

Pupils are requested not to leave any study half done, unless it is impossible to do otherwise.

Fragmentary knowledge, though indeed of much worth, is not to be compared for a moment to that deep, thorough, connected knowledge which distinguishes the true scholar.

Students desiring to take any work out of its regular place in the course are required to consult with the teachers, and obtain their permission before beginning the study.

## Time Table.

### FIRST TERM.

C Drawing.	B Reading.	Zoology.
F Arithmetic.	C Geography.	Physiology.
C Arithmetic.	D Grammar.	Gen. History.
C Algebra.	B History, U. S.	Geology.
Astronomy,	Rhetoric.	Geometry.

### SECOND TERM.

B Drawing.	A Reading.	Physics.
E Arithmetic.	B Geography.	Theo. Pedagogy.
B Arithmetic.	C Grammar.	Geometry.
Book-keeping.	A History, U. S.	Chemistry.
E Algebra.	School Law	
B Algebra.	and Ethics	

### THIRD TERM.

A Drawing.	A Geography.	Botany.
D Arithmetic.	B Grammar.	Pract. Pedagogy.
Writing.	Phys. Geography.	Hist. of Education.
D Algebra.	A Grammar.	Word Analysis.
A Arithmetic.	Civil Govern't.	
A Algebra.	Eng. Literature.	

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## Syllabus.

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### PREFATORY NOTE ON SYLLABUS.

The syllabus is intended to show the general outline of each subject as it is taught in the school. It should be studied in connection with the time tables and tabulated course of study given elsewhere. The order of study is not preserved in the syllabus, but it is in the course. The syllabus is not a mere analysis of a text book, but the record of work already performed in the school. A careful reading of it cannot but support the claim of the school to thoroughness of work and advanced methods of presentation. Examination will show that wherever possible the aim kept steadily in view is to lead the pupil to make practical applications of his knowledge as fast as it is gained. There is no real education where the power of doing goes halting far behind the power of thinking. To insure thoroughness of understanding, examinations are held once a month, and a permanent record kept of the student's standing.

## Professional Course.

### SCHOOL LAW AND ETHICS.—Fifth Term.

A study of action and the springs that lead to it; governing principles of action; the right; conscience—its office and training; sources of the knowledge of right; rights and duties; motives, passions and habits; the cardinal virtues; different ethical systems; duties to ourselves and to society; an analysis of the school law of Arizona.

### PRACTICAL PEDAGOGY.—Sixth Term.

A short study of the nature of man; the intellect, sensibilities and will; meaning and scope of education; correct order of education; training of the senses, memory, imagination and reason; training of the sensibilities, moral powers and the will; the attention, motives, preparation and personal characteristics of the teacher; the school house, apparatus, etc.; organization; principles of management; bases and character of punishment; recitations and assignment of lessons; the teaching of particular subjects.

### PSYCHOLOGY.—Eighth Term.

Benefits to the teacher; definition; subject-matter of psychology; methods of study; necessary truths and necessary beliefs; consciousness; attention; knowing, feeling and willing; sensation; association of ideas; perception; powers of observation; memory, imagination, conception, judgment; reasoning; primary intellectual functions; development; study of children.

### HISTORY OF EDUCATION.—Ninth Term.

Schools of the Jesuits; biographies of Ascham, Montaigne, Ratich, Milton, Comenius, Locke, Rousseau, Basedow, Pestalozzi, Jacotot, Herbert Spencer and Fröbel; suggestions concerning the teaching of children; moral education; discussion of the kindergarten; thorough examination of the educational value of the American common schools.

## Geography.

### POLITICAL GEOGRAPHY.—First Term.

North America, South America, United States—contour, relief, drainage, islands, cities, peoples, commerce, productions, religions, governments, etc.; historical geography; United States studied in detail; particular attention to the topography and resources of Arizona.

### Second Term.

Europe and Asia treated in the same manner as above; places connected with high development in literature and art; the birthplaces of distinguished men, and the scenes of famous historical events, studied carefully; the British Isles in detail; manners, customs and civilization of the various peoples.

### Third Term.

Africa, Australia, Oceanica—special studies of recent explorations; complete topical review of the year's work. Maps will be drawn nearly every day during the course, and attention given to all good methods of presenting the subject. Mathematical geography is taught inductively. The pupils are expected to look up most of their facts during this last term.

### PHYSICAL GEOGRAPHY.—Sixth Term.

The relation of geography to other sciences; the earth as a planet; the earth's magnetism—compass, magnetic variations; geological history of the earth; forms and relations of land and water; relief of the continents; oceanic islands; volcanoes and earthquakes; drainage—rivers, lakes, etc., ocean waters, configuration of sea bottoms, waves, currents, Ferrel's law, tides; the causes of climatic variations; isothermal lines; constant and periodical winds; evaporation and precipitation; atmospheric electricity; fauna and flora of the earth—classification, law of distribution, useful products; types and races



of man; the earth's mineral products; physical features of the United States and Alaska.

## History.

### U. S. HISTORY.—First and Second Terms.

Review of the world in the fifteenth century; period of discovery and exploration; settlement of the new world; early history of the settlements, and division of America among the European nations; the Indians—their life and wars; colonial customs; French and Spanish wars; the revolution—causes, history, results; formation of the republic; social customs in Washington's time; the presidents; war with foreign nations—Tripoli, Algeria, England, Mexico,—their causes, principal events and results; expansion of the Union—territorial and commercial growth; inventions; the changes of parties; the growth of slavery, and the outbreak of the Civil war; history of the Rebellion; recent political events; literature and art; general review. Maps will be drawn by the pupils wherever possible, and essays will be written on the more important subjects. A regular course of reading will be prescribed for the class in addition to the above.

### GENERAL HISTORY.—Seventh Term.

~~Relation of history to science; the divisions of the Caucasian type; ancient history—Egypt, Assyria and Babylonia, the Hebrews, the Phœnicians, Hindoos, Persians; Greece—Sparta and Athens, the Persian attack, the empire of Alexander; Rome—struggle for existence, the republic, the empire, the fall; appearance of the barbarians, and the formation of modern European countries; mediæval history—Saracens, Charlemagne, the feudal system; the crusades and the papal power; the merchant republics of Italy; modern history—revival of learning; maritime discoveries; Charles V, of Spain, and~~

Henry VIII., of England; Luther and the reformation; Elizabethan age; England under the Stuarts; Cromwell, age of Louis XIV.; England under the Georges; Frederick the Great; rise of Russia; the French revolution; Napoleon Bonaparte; later French history, and the unification of Italy and Germany. Throughout the course special attention is paid to the manners, morals and civic attainments of the age under discussion. The growth of civilization and development of democratic institutions will be particularly observed. Historical readings will be carried on during the term,

#### **CIVIL GOVERNMENT.—Ninth Term.**

The object, origin, and nature of civil government; different forms of government; peculiarity of that of the United States; colonial governments; articles of confederation; ordinance of 1787; the constitution; territorial and State governments.

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## **Mathematics.**

#### **ARITHMETIC.—First Term.**

Integral numbers and decimals—notation, numeration, addition, subtraction, multiplication, division; properties of numbers; divisors; cancellation; greatest common divisor; least common multiple; fractions—common, decimal; complex fractions; compound numbers, with their applications. Throughout the term constant drill in the use of signs and in the solution of practical problems; drill in mental arithmetic.

#### **Second Term.**

Mensuration—plane surfaces, solids; percentage, with applications; analysis. Constant drill in use of symbols of operation, of aggregation, of relation; mental arithmetic.

**Third Term.**

Ration and proportion; involution and evolution; application of square root and cube root; progression—arithmetical and geometrical. Throughout the year frequent and thorough reviews will be made; both oral and written solutions will be required. Much attention will be paid to the proper use of symbols of operation, aggregation and relation. Readiness, speed, accuracy and thorough comprehension of the subject are our aims in the mathematics.

**Fourth Term.**

Thorough review of the fundamental operations; careful consideration of the meaning and practice in the use of mathematical symbols; properties of numbers, divisors, multiples, etc., fully discussed; fractions; abbreviated processes; denominate numbers; measures in common use; longitude and time; metric system; percentage.

**Fifth Term.**

Applications of percentage—profit and loss, commission and brokerage, stocks, insurance, taxes, bankruptcy, interest, discount, promissory note, partial payment, annual payment, compound interest, etc.; ratio and proportion; averages; progression; powers and roots; mensuration. Throughout the fourth and fifth terms many practical problems will be proposed for analysis and solution; continued attention will be paid to the use of signs, methods of solution and abbreviated processes. It is expected that the student will be benefited largely by what he does.

**ARITHMETIC.—Ninth Term.**

Review of the fundamental operations as applied to integral numbers, decimals, common fractions, percentage, etc., with special reference to methods of teaching.

**ALGEBRA.—Fifth and Sixth Terms.**

Preliminary definitions; notation; fundamental operations; factoring; fractions; simple equations; simultaneous equations; negative results; involution; evolu-

tion; theory of exponents; radicals; quadratic equations; arithmetical progression; geometrical progression; proportion; practical problems and general review.

**Seventh, Eighth and Ninth Terms.**

A thorough review of literal notation, symbols, fundamental operations, negative quantities, reciprocals, zero powers and negative exponents, factors, divisors and multiples, fractions, abbreviated processes, simple equations, involution and evolution, quadratic equations, inequalities, theory of exponents, ratio, proportion and series; arrangements and permutations; binomial theorem; theory of probabilities; interest formulas; continued fractions; theory of limits, indeterminate coefficients; the differential method; general qualities of equation; Sturm's theorem; Horner's method of approximation.

**GEOMETRY.—Seventh Term.**

Definitions; straight lines; plane angles; polygons; circles; theory of limits; proportion; comparison and measurement of the surfaces of regular polygons and circles, with application of principles.

**Eighth Term.**

Planes; solid angles; polyhedrons; cylinders; cones; spheres. Practical problems in geometry throughout the course.

**ASTRONOMY.—Seventh Term.**

Facts necessary before beginning observation of the heavenly bodies; the diurnal motion of the stars—how to observe and interpret it; the celestial sphere; the equinoctial and horizon systems of circles; annual motion of stars and sun—method of observation and connection of the two motions; inequality of days and nights, and the change of season, observed and interpreted; precession of the equinoxes; time; the moon—how to observe and interpret her motions; eclipses; the motion of the planets observed and explained; the attraction of gravitation; the Copernicon theory, Newton's discoveries, Tycho Brahe's measurements, Kepler's laws; tides; celestial

measurements; the sun, the planets, meteoroids, comets, and the zodiacal light; the heavens beyond the solar system; the constellations and how to learn them; nebulae. Throughout the entire time devoted to astronomy, students are required to faithfully observe the current celestial phenomena and to make maps of the constellations in view.

**BOOK-KEEPING.—Fifth Term.**

Definitions; books used; principles of journalization; posting; trial balance; balance sheet, inventories of resources and liabilities; closing ledger; statements; notes, drafts, checks and names of persons connected therewith; interest, discount, exchange; partnership commission, consignments, shipments, account sales, administrator's books, etc. Practical work throughout the term.

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**English Language.**

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**READING.—First and Second Terms.**

Phonics; orthography; articulation; accent and emphasis; position; breath; gesture; vocal organs; drill in calisthenics; methods of teaching; special attention to increasing the student's knowledge of English literature.

**ORTHOGRAPHY.—First to Third Term Inclusive.**

Oral and written; definitions; diacritical marks; use of dictionary; cultivation of an observant habit regarding words; word analysis and orthoepy.

**GRAMMAR.—First to Third Term Inclusive.**

Orthography; classification of letters and sounds, parts of speech; parsing; syntax, sentence, phrase, clause, punctuation and capitalization. Daily drill in correct speech, and close criticism of all written work.

**A GRAMMAR.—Ninth Term.**

General review of orthography, etymology and syntax; parsing; analysis; letter writing—social and busi-

ness correspondence; the use of diagrams; methods of teaching practical points of grammar.

**RHETORIC.—Fourth Term.**

Place of rhetoric in education; kindred sciences; purity, propriety, precision, style, etc.; rhetorical figures; critical study of literary productions. The essays, orations, letters, reviews, etc., prepared by the students make the course practically one of English composition also.

**ENGLISH LITERATURE.—Ninth Term.**

Beginning of English literature; formative influences of the English tongue; the formation of modern English, and the biographies of famous authors, from Chaucer to the present day, including a study of American literature, with analysis and critical estimation of the Shakespearean drama. Readings from the classics will be given every day during the term. During the year students most read five of the following works, or five works of equivalent value: Shelley's *Adonais*, Scott's *Lay of the Last Minstrel*, Byron's *Prisoner of Chillon*, Emerson's *Essay on Heroism*, Shakespeare's *Hamlet*, Tennyson's *Idylls of the King*, Lowell's *Vision of Sir Launfal*, Irving's *Sketch Book*, Dicken's *David Copperfield*, Cooper's *Prairie*, and George Eliot's *Romola*. Other works may be substituted for these by the consent of the teacher in charge of the work.

**WORD ANALYSIS.—Sixth Term.**

Classes of words; rules for spelling; the Latin element; the Greek element; miscellaneous derivatives; terms used in school studies.

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**Natural Science.**

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**BOTANY.—Sixth Term.**

The leaf—parts, venation, margin, base, apex, simple or compound; inflorescence—forms, æstivation, floral

organs, floral envelopes; essential organs; stamens and pistils—parts and forms; fruits—kinds, dehiscent or indehiscent; study of roots and stems; phanerogamous and cryptogamous plants; vegetable cells and tissues; absorption, circulation, absorption and respiration. One month is allowed for the study of theoretical botany and two months for study and classification of Arizona plants.

**PHYSIOLOGY.—Fourth Term.**

Definitions; organic and inorganic bodies; cells; bones; digestive organs and fluids; uses of fluids; absorption; the lymphatics; respiratory organs, ventilation, circulation; anatomy, physiology and hygiene of the heart; composition of the blood, illustrated with the microscope; temperature of the body, clothing, etc.; secretion; nervous system; insomnia—cause and cure; the senses—taste, smell, touch, vision, hearing, muscular and nervous senses, a study of the anatomy, physiology and hygiene of each; the larynx and the voice; effects of narcotics and stimulants. Illustrations by means of charts, specimens and microscope through entire course.

**GEOLOGY.—Seventh Term.**

Dynamical geology—atmospheric agencies, formation of soil; aqueous agencies—rivers, theory of stratification, currents; ice, work of glaciers and icebergs, chemical action of water; organic agencies—formation of coal, iron, limestone, and the geographical distribution of species; igneous agencies—volcanoes, geysers, earthquakes, crust movements; structural geology—stratified rocks, dip, strike, conformity and unconformity; fossils; geologic time; igneous and metamorphic rocks; faults, fissures, mineral veins; mountain making; historical geology—a study of the geological eras and their important characteristics. Samples of rock formations and fossils are used in study wherever possible.

**CHEMISTRY.—Eighth Term.**

States of matter; atomic theory; classes of chemical compounds; nomenclature; acids, bases and salts; halo-

gens; compound radicals; classes of reaction; the elements, considered theoretically and practically; organic chemistry; alcohols; chemistry of cooking; oils, fats and resins; chemistry of cleaning; chemical antidotes for poisons; practical analyses of compounds. Experiments by teacher or pupils will be performed every day during the course.

#### **ZOÖLOGY.—Fourth Term.**

Practical uses of zoology; the cell; differences between animals and plants; classification—protozoa, coelenterata, crinoids, vermes, mollusca, crustaceans, insects, tunicata, vertebrata. A growing collection of zoological specimens is utilized for illustration and practice in classification. The methods of preparing and mounting skins will be illustrated, and those who so desire can do practical work under the supervision of a teacher.

#### **PHYSICS.—Fifth Term.**

Properties of matter; dynamics; hydrostatics; hydrokinetics; pneumatics; acoustics; heat; optics; electricity. Study strictly inductive.

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## **Writing and Drawing.**

#### **WRITING.—Third Term.**

Position; practice of the muscular movement; form and size of letters; analysis; methods of teaching. We rely mainly on constant practice.

#### **DRAWING.—First, Second and Third Terms.**

Straight lines; curves; designs; conventional forms: object drawing; perspective; use of crayons, etc.



## List of Students.

### POST-GRADUATE.

Winger, Mary.....Tempe

### SENIOR CLASS.

Alpin, Myrtle.....East Highland, Cal  
 Birchett, Jos. T.....Tempe  
 Bury, Addine.....Phoenix  
 Clay, Nettie V.....Buckeye  
 Dobbie, Agnes.....Silver King  
 Gray, Allie.....Phoenix  
 Hill, Leroy F.....Tempe  
 McNeil, Mary E.....Tempe  
 Mets, John.....Mesa  
 Newell, Blanche.....Mesa  
 Pomeroy, Rosina.....Mesa  
 Porter, Cassie.....Tempe  
 Sanders, Ellen.....Rye  
 Stewart, Anna R.....Tempe  
 Woolf, Ida F.....Tempe

### STUDENTS OF THE FIRST AND SECOND YEARS.

Anderson, Miriam.....Gila Bend  
 Atkinson, Hardy.....Tempe  
 Austin, May B.....Tempe  
 Birchett, John R.....Tempe  
 Brizzee, Lorana.....Mesa  
 Bryant, Dora C.....Tempe  
 Bush, Josie.....Mesa  
 Campbell, Wm. H.....Tempe  
 Carroll, John J.....Tempe

Chase, Lydia M.....	Santa Ana, Cal
Clark, Nellie E.....	Mesa
Collins, Guy.....	Tempe
Collins, Lora E.....	Tempe
Culver, Caroline M.....	Tempe
Culver, Nellie E.....	Tempe
Cummins, Mamie M.....	Tempe
Davis, Arthur Wilson.....	Forrest City, Ark
Davis, Robert.....	Tempe
Dobbie, Susie.....	Silver King
Everman, Lalla.....	Mesa
Empey, Frank E.....	Florence
Finley, Sadie.....	Tempe
Fisher, Inez.....	Tempe
Frankenberg, Don J.....	Tempe
Frankenberg, Hortense.....	Tempe
Frankenberg, Roy.....	Tempe
George, Virginia.....	Tempe
Gibson, Charlotte.....	Payson
Goodwin, Jessie M.....	Tempe
Goodwin, Mary E.....	Tempe
Guild, Nott E.....	Florence
Hayden, Carl.....	Tempe
Hedgpeth, Lewis P.....	Phoenix
Hendrix, Georgia.....	Tempe
Holmesley, Alice K.....	Tempe
Jones, Katie.....	Lehi
Kibbey, Walter B.....	Florence
Knight, Wm. G.....	Tempe
Lane, Jessie.....	Stoddard
Lane, Martha J.....	Stoddard
Lewis, Daisy M.....	Tempe
Melton, Julia E.....	Tempe
Miller, Manuela A.....	Tempe
Morse, J. Wallace.....	Tempe
Newell, Fay L.....	Mesa
Nichols, Julia.....	Tempe
Osborn, Maud.....	Phoenix
Osborn, Pauline Rose.....	Phoenix

o	Osborn, Wm. J.....	Phoenix
o	Peyton, Ada.....	Florence.
	Prothero, Annie.....	Lehi
	Rembert, Roberta.....	Phoenix
o	Ridenour, Bertha.....	Tempe
o	Ridenour, Hattie.....	Tempe
o	Rozenberger, Melvin.....	Mesa
-	Sanders, Jos. M.....	Rye
o	Schwarz, Lucy M.....	Lehi
o	Scott, Luna B.....	Cottonwood
o	Sears, Emma Francis.....	Tempe
o	Sirrine, Addie.....	Mesa
	Taylor, Stella.....	Phoenix
o	Vanderhoof, Verner A.....	Paola, Kan.
	Vernon, Della.....	Mesa
-	Walsworth, Roscoe.....	Tempe
	Welcome, Maud J.....	Gila Bend
o	White, Bertha M.....	Tempe
-	Wilbur, Walter.....	Mesa
	Wilson, Bertha Viola.....	Tempe
o	Wilson, Walter S.....	Phoenix
o	Windes, Alice.....	Cottonwood
-	Windes, Stanley.....	Cottonwood
	Woodling, Roy W.....	Mesa
-	Woolf, Jno W.....	Tempe
	Wreidt, Mrs. J. E.....	Tempe
o	Wright, John C.....	Phoenix

## Alumni.

### CLASS OF 1886-87.

NAME.	BUSINESS.	POSTOFFICE.
Reese M. Ling.....	Taught two years.....	Lawyer, Prescott.
Georgie Holmesley.....	Taught seven years.....	Tempe.
Gertrude Pomeroy*.....	Taught two years.....	
Etta Broomell.....	Taught three years.....	Tempe.
(Mrs. John Johnson.)		
Jas. H. McClintock.....	Taught five years.....	"Gazette," Phoenix.

### CLASS OF 1887-88.

Martha Sears.....	Taught five years.....	Tempe.
Kate Cummings.....	Taught two years.....	Tempe.
(Mrs. Fisher Bailey.)		
Henry Q. Robertson.....	Taught <sup>5</sup> <del>10</del> years.....	<sup>Phoenix</sup> Armer, Gila County.

### CLASS OF 1889-90.

Lena Coughran.....	Taught one year.....	Williamson Valley.
Nanna Brown.....	Taught three years.....	Tempe.
(Mrs. Jno. Knight.)		
Russell White†.....	Naval Cadet.....	Annapolis, Md.

### CLASS OF 1890-91.

Lee Gray.....	Law <sup>year</sup> student at Yale.....	<sup>Phoenix</sup> New Haven.
Josephine Frankenberg.....	Taught <sup>3</sup> <del>three</del> years.....	Tempe.

### CLASS OF 1891-92.

Victoria B. Shaw.....	Taught one term.....	Phoenix.
Lillian J. McAllister.....		Tombstone.

### CLASS OF 1892-93.

C. C. Woolf.....	<sup>Lawyer</sup>	Tempe.
Mary Wingar.....	Taught <sup>3</sup> <del>one</del> year.....	Tempe.
Lida Rembert.....	<sup>19</sup> <del>19</del>	Phoenix.
W. I. Melton.....	Taught <sup>4</sup> <del>one</del> year.....	Phoenix.
Agnes Halbert*.....		
Manie Anderson.....	Taught <sup>1</sup> <del>one</del> year.....	Mesa.

\* Deceased,

† Received certificate of course finished.

## Text Books.

Reading .....	Cumnock's Choice Readings.
Rhetoric.....	Hill.
English Literature.....	Shaw.
Word Analysis.....	Swinton.
Political Geography.....	Harper.
Physical Geography.....	Appleton.
Arithmetic .....	{ White. Wentworth & Hill.
Algebra.....	Wentworth.
Geometry.....	Wentworth's Plain and Solid.
Astronomy .....	
Zoology .....	Holder.
Physics .....	Avery.
Physiology .....	Tracy.
Botany .....	Gray.
Geology .....	Le Conte.
Chemistry.....	Meade.
Grammar.....	Conklin.
History, United States .....	Eggleston.
General History.....	Swinton.
History of Education.....	Quick.
Practical Pedagogy.....	Hewitt.
Psychology.....	Gordy.
Ethics .....	Peabody's Moral Philosophy.
Orthography .....	Swinton.
Drawing .....	White.
Writing.....	Spencer.
Civil Government .....	Andrews' Constitution.
Book-keeping.....	Williams & Rogers.

## Calendar for the School Year, 1894-95.

Monday, September 3, 1894.—Registration for the fall term, and examinations for entrance.

Tuesday, September 4, 1894.—First day of the fall term.

Thursday, November 22, 1894.—Thanksgiving holiday.

Friday, December 21, 1894.—Last day of the fall term.

Saturday, December 22, 1894.—Beginning of the Christmas holidays.

Monday, December 31, 1894.—Registration for the winter term, and entrance examinations.

Tuesday, January 1, 1895.—New Year's holiday.

Wednesday, January 2, 1895.—Beginning of the winter term.

Friday, February 8, 1895.—Arbor Day.

Friday, February 22, 1895.—Washington's Birthday.

Friday, March 22, 1895.—Close of the winter term.

Monday, March 25, 1895.—Entrance examinations and registration for the spring term.

Tuesday, March 26, 1895.—Beginning of the spring term.

Thursday, May 30, 1895.—Decoration Day.

Thursday, June 13, 1895.—Commencement exercises.

Friday, June 14, 1895.—Close of the school year.

Friday Evening, June 14, 1895.—Reunion of the Alumni.