

# STATE COURSE OF STUDY

FOR THE

## COMMON SCHOOLS OF COLORADO

SUGGESTIONS FOR TEACHERS AND SCHOOL  
OFFICIALS. COLLEGE PREPARATORY  
COURSE OF STUDY. SCHOOL  
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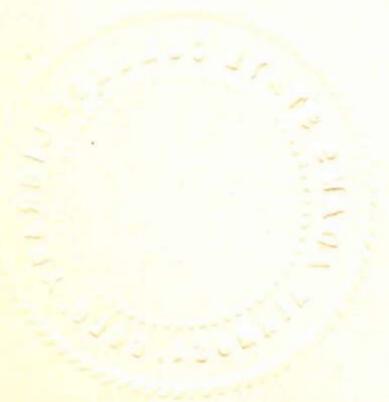
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PREPARED UNDER THE SUPERVISION OF  
HELEN L. GRENFELL,  
SUPERINTENDENT OF PUBLIC INSTRUCTION,  
AND ISSUED JULY, 1900.

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To the County Superintendents and Teachers of Colorado :

During the school year recently ended I invited Ira M. DeLong, Frank D. Ball, William Triplet, F. H. Clark, A. B. Copeland, Fred M. Shaw and J. H. VanSickle to assist me in the preparation of a new Course of Study for all schools in the state which are not working under courses specially made for them.

At the initial meetings of the Committee, after a full discussion of the general problem, the plan of the Course was definitely laid out, the subject matter chosen, and the various parts distributed to appropriate sub-committees. At later meetings the sub-committees made preliminary reports, which were thoroughly sifted and gradually brought into their final form. The result is more or less unique in this class of literature; it is also, as I believe, good.

I urge upon all teachers a conscientious observance of the Course. Its form, its matter, and its many practical precepts, have all been canvassed with painstaking care by recognized educators. Granting that there may be errors or defects, it should hardly be expected that either additions or omissions, or even changes of order, could ordinarily be extemporized with advantage. If in any case some deviation seems needful, study the matter well, and secure the approval of the county superintendent. In no case should there be

any material departure from the Course without the co-operation of the county superintendent.

In behalf of the schools for the welfare of which alone this Course has been made, in behalf of the alert teachers who will with fidelity use it on plain and hill, I publicly thank the gentlemen of the Committee, and also the experienced and able superintendents and grade teachers of the state, who have given to its construction so freely of their time, their labor, and their accumulated professional knowledge, and with a firm belief in our schools and a sincere wish to promote their efficiency, I am,

Very truly yours,

HELEN L. GRENFELL,

Superintendent of Public Instruction.

July, 1900.

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## GRADE THREE.

Use copy book, or suitable copies for formal exercises. Endeavor to secure correct size and spacing. Insist on neatness in all written exercises, making each a writing lesson.

## GRADES FOUR AND FIVE.

Continue as in grade three, seeking to develop full, round, legible handwriting in all written work submitted. Insist on this and accept no careless, slovenly work.

## GRADES SIX, SEVEN AND EIGHT.

Many of the pupils will by this time be beyond the benefit of copy book work. Let individuality assert itself, directed by suggestions from the teacher. Only those pupils whose penmanship is poor should be required to devote time to formal writing exercise.

If the child possesses a hand well-formed under the slant system, do not attempt a change to the vertical; but if the hand is slovenly or illegible, nothing will more improve it than a change to the vertical system.

Give special attention to business forms, such as notes, bills, receipts, etc. Require all written work to be neat and legible.

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**READING.**

Inasmuch as reading is the key to all book knowledge and to nearly all knowledge of current events, its proper teaching is of highest importance. Reading is thought-getting and thought-giving. As the power to get thought from

the printed page is that power which makes the child independent, the development of ability thus to get thought should be the teacher's chief aim. The first requisite is the mastery of words, and the ideas which words convey. Associate the word with the symbol, the sentence with the thought. Abundant material is found in story, song, poem, and nature study, for the cultivation of a taste for good literature, while developing a power to read. A large suggestive list is given at the close of the reading outline.

Use a combination of all methods, adapting the method to the child's immediate needs. If not a good story teller, cultivate the art. While telling a story, write the words you wish to teach on the board. When a word thus written is again used in the narration, point to the written word, waiting for the child to pronounce it. In this way words with their meanings are strongly impressed on the mind. Natural expression will come with this mastery of thought combined with a desire to give it to others. Phonics and word-building soon lead to independence. Lead the child to see the characteristic element in *type-words*: *at* in *mat*, *ing* in *sing*, etc. Knowing the value of the consonants and the syllable *ing*, the child will experience no difficulty in pronouncing words ending in *ing*. This same practice should be given to other combinations. Through word-building and word analysis lies the shortest road to self-help.

#### GRADE ONE.

Begin by teaching words on the blackboard. Interest the pupils in simple stories about common things, using the words you wish to teach. Begin the use of the book as soon as the pupil knows a sufficient number of words to make the book an object of interest. Use a part of the recitation period in studying the lesson to follow. Drill on the new and un-

familiar words before dismissing the class, that the children may be enabled to prepare the next lesson. Teach *the* and *a* in conjunction with the word they precede. Complete the first reader, but do not be confined to one book. Read everything available that is suited to the understanding of the child. Strive from the beginning for natural expression. There is a vast distinction between *naming words* and *reading*.

## GRADE TWO.

Complete the second reader and accomplish as much supplementary reading as possible. Insist on clear and distinct articulation. Have the pupil understand the meaning of what he reads and express it in a natural manner. Take the class carefully over the difficulties of the lesson to follow. A lesson properly assigned and well prepared requires but little time for recitation.

## GRADE THREE.

Complete the third reader and increase the amount of supplementary reading. Create such an interest in good literature adapted to the age and development of the child that he will be induced to read at home, and to choose only good reading. When the pupil is sufficiently interested to read for his own amusement there is no more drudgery in the teaching of reading. Call attention to the common marks of punctuation and give the rules which govern their use. Teach use of dictionary. The "dictionary habit" should have a constant growth from this on.

## GRADE FOUR.

Complete the fourth reader. Do much supplementary reading. Call for reports on current events and subjects of

general interest which will necessitate outside reading. Require knowledge of rules for use of capitals and punctuation marks found in lessons.

#### GRADE FIVE.

Selections from fifth reader. Make a study of a few suitable masterpieces of American literature. Continue requirements as suggested under grade four.

#### GRADES SIX, SEVEN AND EIGHT.

Make reading a study of literature. No child should finish his common school work without an appreciative knowledge of our best American authors. Develop expressive readers. Cultivate full, round tones of voice. Set good models for pupils.

The Riverside Literature Series (Houghton, Mifflin & Co.), English Classics (Maynard, Merrill & Co.), and similar publications by nearly every book publisher, furnish a wealth of material at nominal cost.

#### Supplementary Reading.

This list of books has been carefully compiled. Most of them have been tested by actual use in the schoolroom, and the committee feels safe in commending them strongly. At the same time it is not pretended that the list is complete; doubtless many other books, equally good, can be obtained.

In the supplementary reading always endeavor to impress the humane and ethical lessons contained in the stories read. To read simply to kill time or to name the words is supplemental to nothing of value and is of very little value in itself; it is an *educational waste*.

For supplementary work the reading should be slightly easier than that of the regular work, and books given for one

grade are often as valuable in grades higher, and may be so used.

*Grade One.*

The Werner Primer.....	W.
A First Year Nature Reader.....	W.
Riverside Primer .....	H. M. & Co.
Golden Rod Series of Readers—I.....	U. P. Co.
Child Life (A First Reader).....	McM.
Lights to Literature.....	R. & McN.
New Century First Reader.....	R. & McN.
Stories for Children.....	A. B. C.
Our Little Book for Little Folks.....	A. B. C.
Cyr's Primer.....	G. & Co.
Little Classics—Franklin, Columbus, etc.....	E. P. Co.
Krackowizer's First Reader.....	B. S. Co.
Hiawatha Primer.....	H. M. Co.
Butterfly Baby.....	E. P. Co.

*Grade Two.*

Golden Rod Series of Readers—II.....	U. P. Co.
Child Life in Tale and Fable.....	McM.
Cyr's First Reader.....	G. & Co.
Cyr's Second Reader.....	G. & Co.
Baldwin's Second Reader.....	A. B. C.
Grandfather's Stories .....	A. B. C.
Stories of Heroic Deeds.....	A. B. C.
Graded Literature Readers—I and II.....	M. & M.
Rhymes and Fables.....	U. P. Co.
Songs and Stories.....	U. P. Co.
Stepping Stones to Literature, First, Second.....	S. B. & Co.
Twilight Stories.....	S. B. & Co.
Wake Robin Series.....	E. O. V.
Seaside and Wayside—I.....	D. C. H.
Little Nature Studies—I.....	G. & Co.
Mew-Mew and Bow-Wow.....	M. M. & Co.

*Grade Three.*

Golden Rod Series—III.....	U. P. Co.
Child Life in Many Lands.....	McM.
All the Year Round.....	G. & Co.

Story of Columbus,—of Penn,—of Lincoln.....	E. P. Co.
Boston Tea Party.....	E. P. Co.
The Golden Touch.....	E. P. Co.
Cyr's Third Reader.....	G. & Co.
New Century Second Reader.....	R. & McN.
Hearts of Oak—II.....	D. C. H.
Through the Year—I.....	S. B. & Co.
Fairy Life.....	U. P. Co.
Stepping Stones to Literature—III.....	S. B. & Co.
Braided Straws .....	S. B. & Co.
Wake Robin—II.....	E. O. V.
Little Nature Studies—II.....	G. & Co.
Stories of the Red Children.....	E. P. Co.
Baldwin's Third Reader.....	A. B. C.

*Grade Four.*

Golden Rod Series—IV.....	U. P. Co.
Child Life in Literature.....	McM.
Seaside and Wayside—II.....	D. C. H.
Wake Robin—III.....	E. O. V.
New Century Reader—III.....	R. & McN.
Baldwin's Fourth Reader.....	A. B. C.
Heart of Oak—III.....	D. C. H.
Ballads and Tales.....	U. P. Co.
Stepping Stones—IV.....	S. B. & Co.
Heart Culture (for humane teaching).....	W. R. & Co.
Alice and Tom, A Nature Story.....	D. C. H.
Through the Year—II.....	S. B. & Co.
Friends and Helpers (for humane teaching).....	G. & Co.
My Saturday Bird Class.....	D. C. H.
Child Life, Book 3.....	McM.

*Grade Five.*

Riverside Literature Series, No. 29.....	H. M. & Co.
Child Life in Literature.....	McM.
Seaside and Wayside—III.....	D. C. H.
Legends of the Red Children.....	W.
Hawthorne's Tanglewood Tales.....	H. M. & Co.
King's Geographical Reader—II.....	L. & S.
Selections from Longfellow.....	A. B. C.
Black Beauty.....	E. P. Co.
Baldwin's Fifth Reader.....	A. B. C.

Cyr's Fourth Reader.....	G. & Co.
Western Series—Pacific Nature Stories—II.....	W. R. & Co.
Stepping Stones—V.....	S. B. & Co.
Old Norse Stories.....	A. B. C.
Alice and Tom—Nature Study.....	D. C. H.
Stories of Animal Life.....	A. B. C.
Our Feathered Friends.....	D. C. H.

*Grade Six.*

Stories of the Greeks (Guerber).....	A. B. C.
Riverside Literature Series, No. 10.....	H. M. & Co.
Pioneer History Stories (McMurray).....	P. S. P. C.
Paul Revere's Ride and Other Poems.....	H. M. & Co.
Beginner's American History.....	G. & Co.
Baldwin's Sixth Reader.....	A. B. C.
Seaside and Wayside—IV.....	D. C. H.
Western Series—Nature Stories—III.....	W. R. & Co.
Stepping Stones—VI.....	S. B. & Co.
Ways of Wood Folk.....	G. & Co.
Cyr's Fifth Reader.....	G. & Co.

*Grades Seven and Eight.*

Longfellow's Evangeline, Riverside Literature Series.....	H. M. & Co.
Stories of the Romans (Guerber).....	A. B. C.
Lays of Ancient Rome, Riverside Literature Series.....	H. M. & Co.
Courtship of Miles Standish, Riverside Literature Series.....	H. M. & Co.
Snowbound, Riverside Literature Series.....	H. M. & Co.
Fifth Reader, Barnes'.....	A. B. C.
Baldwin's Seventh Reader.....	A. B. C.
Swinton's Sixth, or Classic English, Reader.....	G. & Co.
Seaside and Wayside.....	D. C. H.
Rosa Bonheur.....	E. P. Co.
Landseer.....	E. P. Co.
Guido Reni.....	E. P. Co.
Stepping Stones—V. Stories of Mother Earth.....	W. R. & Co.
Home Studies in Nature.....	A. B. C.
Citizen Bird.....	McM.

H. M. & Co., G. & Co., A. B. C., E. P. Co., M. & M. and other houses each issue series of books of excellent character along similar lines. Teachers can hardly go astray in consulting their lists.

**ORTHOGRAPHY AND ORTHOEPY.**

Bear in mind that the teaching of orthography means something more than hearing pupils spell lists of words from a spelling book, and that there would be better spelling if more real orthography were taught. Much misspelling is due to careless pronunciation on the part of the teacher as well as the pupil. Endeavor to impress on the mind of your pupils the importance of learning to pronounce accurately and spell correctly.

An unabridged dictionary should be found in every schoolroom and should be frequently consulted by teacher and pupils, for spelling and pronunciation as well as for meaning of words. Diacritical marking should be a feature of the spelling exercises, increasing the list of marks as the grade work advances.

**GRADE ONE.**

Teach the phonetic value of the consonants, and the common value of the vowels, with the marks by which they are indicated. Drill daily in word-building. Teach the spelling, both by sound and by letter, of all words added to the child's vocabulary. Begin early to drill in visualizing. The power to reproduce the image, not memory, makes good spellers.

**GRADE TWO.**

Teach the principal sounds of the vowels and the marks that indicate them. Continue the work of word-building, beginning to discriminate between simple and compound words. Teach simple word-analysis. Spell new words encountered in the pupil's reading. Continue the drill in visualizing, and make it interesting and effective by all the devices at your command.

The second and third years are especially important in laying the foundation for accurate spelling through life.

#### GRADE THREE.

Analysis and synthesis of words as in the preceding grades. At least half the work of this grade should be written. Give occasional dictation exercises. Some of the most common prefixes and suffixes should be taught. Pay special attention to the division of words into syllables, and teach accent. Insist upon the correct pronunciation and enunciation of every word learned.

#### GRADE FOUR.

Distinguish between primitive and derivative words. Teach and apply the rules for doubling the final consonant and for dropping the silent final *e*, and call attention, wherever found, to examples illustrating the rules. Increase the proportion of written work and diminish the amount of oral spelling. Give frequent dictation exercises throughout the course. Continue the work in syllabication and accent.

If not previously used, a speller should now be introduced. Reed's Word Lessons (M. & M.) and The American Word Book (A. B. C.) are among the excellent texts now published.

Remember that the proper teaching of spelling involves more than the mere placing of letters in correct order, therefore the use of words in sentences should form one of the most important parts of the work throughout the grades.

#### GRADE FIVE.

Give thorough drill on the common English prefixes and suffixes, with their significance, and the formation of deriva-

tive words. Teach the rule for derivatives formed by adding a suffix to words ending in *y*, and illustrate its application. Do not limit your teaching of spelling to the period assigned in the programme, but whenever possible, call attention to the spelling of peculiar and uncommon words, words commonly misspelled, and illustrations of rules of spelling learned. Let each pupil keep a list of words commonly misspelled by him, and whenever you give him an oral drill, select some from that list. Continue drill in the use of words in sentences.

#### GRADE SIX.

Teach the common Latin prefixes and suffixes with their significance. Learn and apply the rules of spelling not already learned. Drill on the individual lists of misspelled words and upon hard words and those ordinarily mispronounced. The meaning, derivation, and growth of words should continually receive attention. Do not accept misspelled exercises in any line of work, but insist upon the correction by the pupil of any mistakes he may make.

#### GRADE SEVEN.

Give frequent exercises in analysis of words. Call frequently for the rules of spelling, and illustrations of their application. Call for the spelling of new words encountered in all branches of study, and especially of geographical names. Continue the work with individual lists of misspelled words, dictation exercises, use of words in sentences and other points emphasized. Have an occasional exercise in oral spelling.

#### GRADE EIGHT.

Teach the subdivisions of consonants; cognate sounds and letters; diphthongs; triphthongs; digraphs; trigraphs;

accent, primary, secondary, etc.; syllabication, penult, antepenult, etc. Teach the common rules of orthoepy and their application. In all grades let orthography and orthoepy go hand in hand, for they are twin subjects. Insist upon correct spelling in all written work.

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### LANGUAGE AND GRAMMAR.

In all grades, particularly the lower, have great care that correct language forms are kept before the pupils. The language of the teacher should be exemplary in diction and syntax. As errors occur, correct them, but never present for correction false forms or constructions, either in language, spelling or punctuation.

The teaching of language involves ample preparation on the part of the instructor, together with faithful, patient attention to the oral and written work of the individual pupils.

In the lower grades the material for stories and exercises should be largely gathered from the work given in other branches. Draw freely and fully from the nature study and history studies for language drills, also from the daily experiences of the child. Remember that to hold the willing interest of the children you must have the stories presented characterized by action. Tell about people and animals and the things they do. Narration and description are valuable in this connection only when full of life.

As pupils advance, the reasons for the common constructions should be developed and learned. Meaningless rules and definitions are to be avoided; but, the meaning being understood, the rule and definition possess distinct and

real value. Technical grammar becomes then the science which gives stability and character to the art of language. The pupil completing the sixth grade should have ready command and facile use of grammatical English, and should be able to give a reason for the form used. All true art is based on a fundamental science.

#### GRADE ONE.

Cultivate the power of expression of ideas, in drawing, paper-cutting, actions, conversations or written language. This involves careful leading and much practice.

Reproduction of short stories and the telling of original stories. This necessitates the presentation of abundant material (such as will be readily found in the *information lessons* of the grade), that the pupils may not lack ideas when called upon to give expression in either written or spoken language.

Have all written work neatly executed. Have the beginning and ending of sentences properly made. Individual names and addresses. Short poems copied. Simple memory gems committed. A suggestive list is given at the close of the language outline.

#### GRADE TWO.

Some good text book (such as Metcalf and Bright's Language Lessons, Part One, A. B. C., and The Mother Tongue, Book One, G. & Co.), which is alive with suggestive material, should serve as a guide from which the simple essentials may be selected by the teacher. Story writing from pictures and objects. Reproductions in story form from selections read or stories told by the teacher. Utilize material provided in other studies in the grade work, particularly nature study and history work. In all this seek for freedom and facility in expression of thought.

During the year bring out the following: Correct forms of oral and written expression, declarative and interrogative sentences, proper names, initials and simple abbreviations, days of the week, the months, dates, etc.

Distinguish between meanings of words and their correct use in sentences, such as is—*are*—*were*, those—*them*, to—*too*—*two*, there—*their*, pair—*pare*—*pear*, through—*threw*, and others, as circumstances manifest the need and furnish the opportunity.

By means of sentences, oral and written, fix the uses of the singular and plural forms; the present and past tense and the participle forms of the verb; and in a similar manner, the proper use of adjectives, and adverbs, such as good, better, best, quick, far, sweet, sweetly, quickly, nicely, etc., etc.; also, common contractions, such as don't, isn't, doesn't, wern't, etc., etc. Common and proper nouns should be distinguished. Teach the use of the sign of possession. Require the copying of choice selections and much writing from dictation and memory, being careful that only selections of ethical value and elevating character are memorized. Five or six selections should be committed during the year. "Come, Little Leaves" is one of many quite suitable.

See list.

#### GRADE THREE.

The fixing of correct and accurate forms of expression and the cultivation of general good English is the particular aim of the work of this grade. It is to be best secured by abundant practice in talking and writing, and by frequent oral and blackboard drills. The language text which has hitherto been used by the teacher as a guide may now be placed in the hands of the pupils and the first third of it completed during the year. Metcalf and Bright's, and Ar-

nold and Kittredge's texts are good for this class of work, and Maxwell, Long, DeGarmo and others have excellent texts of similar scope. Note the suggestions in the previous grade, and give in addition thereto especial attention to the following:

Simple forms of writing, including punctuation, indentation, capitalization, abbreviations, titles, addresses, signatures, letter writing, headings for written exercises, etc., etc. An abundance of suggestive material may be selected from nature study, history and other information lessons.

Distinguish the forms and uses of the personal pronouns. Use of who—whom, like—as, and similar forms. Common verbs, forms taught by use in sentences. Use of synonyms. Combinations of simple sentences. Review declarative and interrogative sentences, and teach the use of imperative and exclamatory sentences. The subject and the predicate as essential parts of the sentence. Continue reproductions and memorizing selections of value. See list.

#### GRADE FOUR.

Read carefully the suggestions for previous grades and adapt for use in this. The second third of the language book should be taken during this year.

Reproduction work based on material provided in nature study, history, and other information lessons, together with material given or suggested in the text, should be freely used. If the pupils are full of material, this work will greatly interest them. It only remains for the teacher to guide them into correct forms of expression.

Parts of speech should be recognized, and very simple forms of sentence analysis should be given, thus laying the foundation for additional drill in upper grades. Simple

essentials of formal grammar have their place and should become more prominent as the work progresses. Memorize selections of real value. Do not encumber the mind of the child with useless or meaningless jingles. See list.

## GRADE FIVE.

Complete the text book during the first half-year. (If Metcalf and Bright's Language Lessons is used, begin Part Two and complete the first third of it during the remainder of the year. If some other text is used, plan to complete the book, or books, that are preliminary to advanced grammar in this and the sixth grade.)

Continue the correction of errors as they occur, and carry on sentence analysis, avoiding difficult or doubtful constructions.

Require composition work—always remembering to provide and use freely the abundant material furnished in the science, history and other information lessons outlined in this and preceding grades. Require all written work to be neatly executed, with due regard to correct punctuation, capitalization, contractions, abbreviations, etc. Blackboard and oral drills are valuable in this connection.

Practice using the dictionary. Develop independence in thought and capacity for expression.

Memory work as indicated in the text, or as given by the teacher, provided selections of standard merit only are used. See list.

## GRADE SIX.

Complete text, ready for entering upon the study of technical grammar in the next grade. Note plan suggested under grade five.

Give some attention to formal grammar, especially in sentence analysis. (In sentence analysis use only the main divisions of the outline given under grade eight.) Do not use diagrams until after sentence analysis is well in hand, and then only as a means to economize time. Declensions, comparisons and conjugations should be emphasized, preparing the way for a full mastery of all forms of inflection in succeeding grades.

Continue reproduction and composition work as before indicated, and require some simple paraphrasing.

Memory work. See list.

#### GRADE SEVEN.

Use some standard author, such as Metcalf, Maxwell, Park or *The Mother Tongue*, Part 2, and have two or three authors for daily references.

Complete orthography and etymology.

Practical use of good English is of primary importance, but definite and logical forms of parsing the different parts of speech, and abundant practice therein, must not be neglected. Do not be afraid of technical grammar, but omit meaningless rules and forms. Continue practice in sentence analysis, but avoid intricate constructions.

Insist on use of correct English in all recitations. Encourage freedom of speech and give much drill, developing the power to think readily and speak freely while standing in the presence of classmates. Essay and composition work, involving paraphrasing, continued, to develop easy and accurate expression of thought with the pen. Subjects for essays and composition to be selected from the work in other branches of the grade. Require frequent use of dictionary.

Insist upon pupils making constant additions to their vocabulary.

Memory work. See list.

GRADE EIGHT.

Review etymology and complete syntax. Drill thoroughly on conjugation of verbs, and on the inflectional forms of other parts of speech. Continue work on sentence analysis, following some well arranged and systematic form.

(The form given below has been thoroughly tested and has yielded excellent results.)

Review letter writing and include business forms and correspondence. Use dictionary freely, seeking to fix the habit of reference to that and other authorities for correct forms and accurate meanings of words.

Reading of current and standard literature.

Memorizing choice selections. See list.

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It has been well said that "grammar is the logic of the common branches." Logical thinking finds expression in well-chosen and logically-arranged English—indeed, drill in the latter is of great value in developing the former; hence the emphasis placed on forms of parsing and analysis of sentences. Each pupil should be required to have and to use definite forms, thus acquiring facility in clear and accurate thinking and expression.

Forms of parsing are readily outlined.

A form for sentence analysis is herewith suggested:

U U

1. Read the sentence.
2. State kind:
  - (a) According to form—whether simple, complex or compound.
  - (b) According to use—whether declarative, interrogative, exclamatory or imperative.
3. Logical (or complete) subject.
4. Logical (or complete) predicate.
5. Grammatical (or simple) subject.
6. Its modifiers:
  - (a) According to form—whether simple, complex or compound.
  - (b) According to use—whether adjective, substantive, appositive, etc.
  - (c) According to class—whether first class (a word), second class (a phrase), or third class (a clause).
7. Grammatical (or simple) predicate.
8. Its modifiers:
  - (a) According to form—whether simple, complex or compound.
  - (b) According to use—whether adverbial, attributive or objective.
  - (c) According to class—whether first class (a word), second class (a phrase), or third class (a clause).
9. Connectives.
10. Independent elements.

### Selections for Language Work.

It is urged that the memorizing of choice selections be one of the features of language work throughout the grades. Such will be a source of pleasure and profit to the child throughout life. The following are given as a basis for memorizing, for reproductions and for conversation lessons. Note suggestions in the outline of language work. The list is in no sense complete, nor is it exclusive. The texts referred to contain many others equally good, and various other excellent collections are obtainable. Select only work of standard merit and worth. \*Titles, authors, where found, are given as fully as possible.

#### *Grade One.*

- All Things Bright and Beautiful—Mrs. Alexander; Land of Song, I. (S. B. & Co.).
- How the Leaves Came Down—Susan Coolidge; Land of Song, I. (S. B. & Co.).
- Come, Little Leaves—George Cooper; Land of Song, I. (S. B. & Co.).
- The Baby—Geo. MacDonald; Songs of Tree-top and Meadow (P. S. P. Co.).
- My Shadow—Robert L. Stevenson; Songs of Tree-top and Meadow (P. S. P. Co.).
- Seven Times One—Jean Ingelow; Songs of Tree-top and Meadow (P. S. P. Co.).
- Hang Up the Baby's Stocking—Emily H. Miller; Songs of Tree-top and Meadow (P. S. P. Co.).
- Kind Hearts—Emily H. Miller; Songs of Tree-top and Meadow (P. S. P. Co.).
- The Chickens—Emily H. Miller; Songs of Tree-top and Meadow (P. S. P. Co.).
- The Magic Vine—Emily H. Miller; Songs of Tree-top and Meadow (P. S. P. Co.).
- Didn't Think—Phoebe Cary.
- Easy Lessons—Phoebe Cary.
- Suppose—Phoebe Cary.
- The Dutch Lullaby—Eugene Field.
- Baby Bye—Theo. Tilton.
- Answer to a Child's Question—Coleridge.

A Bunch of Golden Keys—Coleridge.  
 October's Party—George Cooper.  
 Just a Little—Ella W. Wilcox.

*Grade Two.*

Those given for grade one, with the following in addition:  
 September (for September)—Helen Hunt.  
 O Sun and Skies and Clouds of June (for October)—Helen Hunt; first, fourth, fifth and eighth stanzas.  
 Talking in Their Sleep (for November)—Helen Thomas; Little Flower Folks, by Mara L. Pratt.  
 The Little Brown Seed in the Furrow (for November)—Ida W. Benham; Little Flower Folks, by Mara L. Pratt.  
 What Robin Told (for March)—George Cooper; Little Flower Folks, by Mara L. Pratt.  
 The Secret (for March)—George Cooper; Little Flower Folks, by Mara L. Pratt.  
 The Brown Thrush (for March)—Lucy Larcom; Whittier's Child Life.  
 An April Welcome (for April)—Phoebe Cary.  
 The Children's Hour—Longfellow.  
 The Fairies—William Allingham; Land of Song, I.  
 Little by Little—Luella Clarke; Songs of Tree-top and Meadow.  
 The Bright Side—Geo. MacDonald.  
 Christmas Song—Eugene Field; Songs of Tree-top and Meadow.  
 I Love You, Mother—Eugene Field; Songs of Tree-top and Meadow.  
 Nursery Song—Mrs. Carter; Songs of Tree-top and Meadow.  
 Lady Moon—Lord Houghton; Songs of Tree-top and Meadow.  
 Over in the Meadow—Lord Houghton; Songs of Tree-top and Meadow.  
 What Do the Daisies Say?—Edith Thomas.  
 He Prayeth Well Who Loveth Well—Coleridge.  
 Great, Wide, Beautiful, Wonderful World—Matthew Brown.  
 The Lost Doll—Chas. Kingsley; Land of Song, I.

*Grade Three.*

Nobility—Alice Cary.  
 The Arrow and the Song—Longfellow.  
 The Barefoot Boy—Whittier.  
 The Mountain and the Squirrel—Emerson.  
 Who Stole the Bird's Nest?—Lydia M. Child; Land of Song, I.  
 Robin Redbreast—William Allingham; Land of Song, I.  
 Good-Night and Good-Morning—Lord Houghton; Land of Song, I.  
 A Boy's Song—James Hogg; Land of Song, I.  
 A Farewell—Whittier; Land of Song, I.

The use of the above selections in any particular grade will vary greatly as the ability of the pupils demand. Do not force unsuitable work on any class. Use good judgment in making selections, but make it a point to have pupils memorize choice material freely.

A. F., A. C. Mc, or any general book dealer can supply books containing above selections.

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**NUMBERS AND ARITHMETIC.**

## SUGGESTIONS.

1. Study the mental processes of the pupil (especially if he be dull or backward) and aim to secure for him a real basis in thought for all of his attempts at expression, making sure that he has something in his mind to correspond to the oral and written number symbols.

2. Require all pupils above the first grade to make and solve original problems, these problems in all cases being only such as are within the range of their personal experience or observation.

3. In the lower grades objects are invaluable; they are very desirable also for the upper grades in the beginning of such subjects as mensuration, denominate numbers, evolution; use them freely at first; but for the later work, gradually dispense with them, especially in the reviews, aiming at a clear, strong grasp of number relations in the abstract, which implies the ultimate power of thinking and comprehending mainly without objects.

4. Study closely the pupil who persists in finger-counting and other substitutes for mental effort—it may be that he is in need of further object teaching. (See suggestions above.)

5. Drill the lower grades daily in the fundamental operations, at least until reasonable accuracy and skill have been acquired. In the grammar grade be sure that the pupil is able to give a correct analysis of multiplication and division in concrete problems, making the analyses brief yet logically complete.

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necessities may be secured by allowing pupils in the upper grades merely to indicate the solution of long problems, and then to proceed at once to the oral analysis without stopping to work out the indicated operations.

11. In the following outline, all reference to text books assumes the use of a two-book series (the Elementary and the Practical), according to the common practice in this state. The teacher should have at hand several good text books in addition to the one in regular use by the pupils. The following list (which might easily be enlarged) is suggested:

Atwood, Milne, Prince (each book in the set to be used about one grade in advance of its name—the second book in the third grade, etc.), Ray, Robinson, Speer, Wentworth, White, Cook & Cropsey's Normal Course in Number and Fish's Arithmetical Problems.

#### GRADE ONE.

Train the senses daily throughout the year, and for the first few weeks almost exclusively, this being more important than any specific number work. Pay especial attention to sight and touch, yet do not neglect hearing. Develop the simpler ideas of comparison—large, small, larger, smaller, largest, smallest, long, short, etc.—using well known concrete objects and leading up gradually to the more abstract idea of equality. Develop the ideas of direction, position, solids, surfaces, lines and edges. Use only very familiar objects (beans, tooth-picks, splints, rectangles, oblongs, blocks, etc.), and allow them all to be freely handled under direction. Spend much time in simple manual exercises, such as cutting and drawing; have great variety in the exercise with a view to a corresponding variety of correct expression in telling what is done. Teach all possible combinations and separations of numbers from 1 to 10, and such simple frac-

tional parts as  $\frac{1}{2}$ ,  $\frac{2}{2}$ ,  $\frac{1}{3}$ ,  $\frac{2}{3}$ ,  $\frac{3}{3}$ ,  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$ ,  $\frac{4}{4}$ ,  $\frac{1}{5}$ ,  $\frac{2}{5}$ ,  $\frac{3}{5}$ . Teach inch, foot, yard, in linear measure; and pint, quart, gallon, in liquid measure. Teach cent, nickel, dime, quarter, half and dollar, in United States money; and circle, oblong or rectangle, square, triangle, and ball or sphere, in geometry. In all this teaching use the objects freely and regularly for the advance work, trying to lay them aside more or less in the reviews. (See Suggestions.) Teach words representing numbers, the clock face, and such other Roman numerals as appear in the reading lessons.

#### GRADE TWO.

Build on the first grade work. Develop addition and subtraction relations from 10 to 20, thoroughly drilling on all the combinations and separations, and having pupils use objects freely under direction. Have many original problems, for all mental solution, some coming from the teacher, others from the pupils. Continue work in simple fractions, denominate numbers and familiar geometrical forms. In all counting by 2's, 3's, 4's, etc., "break the step," by beginning the 2's at 1, the 3's at 1 or 2, the 4's at 1, 2 or 3, etc.; this is a drill in addition, not in multiplication. Teach multiplication and division operations by construction; products and dividends not to exceed 72, and no factor to exceed 9. Drill daily in original mental problems. Gradually lessen the use of objects, except in concrete problems and for advance work. (See Suggestions.) Begin the regular use of written work, teaching all necessary signs, and reading and writing in numbers.

#### GRADE THREE.

Begin the regular use of an elementary text book, reviewing in it the second grade work under new forms and

devices. Drill on addition and subtraction, and on multiplication, and on division with one figure. Teach the combinations, separations and comparisons of the simplest fractions. In counting by 2's, 3's, 4's, etc., continue to "break the step." Finish the multiplication table by construction, and drill thoroughly as the construction proceeds. Continue the original mental problems, and the oral drills for accuracy and rapidity.

#### GRADE FOUR.

Continue written work in the fundamental operations, emphasizing multiplication with more than one figure, and long division. Insist upon a correct analysis of concrete problems involving multiplication and division. In division lead the pupil to distinguish between "partition" and "measurement" (but do not teach these technical terms).

Spend much time upon the fundamental operations as applied to fractions, illustrating with paper circles, blocks, rectangles and lines, and using only such simple fractions as the pupils already well know. (See Suggestions.) Drill daily upon the fundamental operations for accuracy and rapidity, and make constant use of mental arithmetic for quick thought and ready speech.

#### GRADE FIVE.

Introduce problems involving fundamental operations. Continue work with geometrical forms and denominate numbers. Complete elementary book, covering the following points: factors, divisors, and multiples; common and decimal fractions, introducing percentage, and supplementing largely from other sources. Develop the processes by using small numbers almost wholly (see Suggestions), and insisting that the pupil shall obtain his results without the use

of either chalk or pencil, that is, mentally; determine thus, by inspection the C. M., C. D., L. C. M., and G. C. D., using numbers less than 100.

Teach the prime numbers to 100, and the prime factors of the composite numbers less than 100 and the simple rules for divisibility. Require all factoring to be done by inspection. In reduction of fractions most pupils will be able to learn the process from the analysis—that is, learn the “how” through the “why,” these analyses being very simple and direct; but in multiplication and division of fractions it is better to teach the process thoroughly before laying any emphasis on the analysis. Be sure to teach the process beyond the chance of forgetting it. Give increasing attention to the neat and systematic arrangement of all written work, especially in fractions. (See Suggestions.)

#### GRADE SIX.

In this grade begin the second book of the series (see the last suggestion). Review partitive and metric division, the rules for divisibility by 2, by 3, etc., G. C. D. and L. C. M. Explain inversion of the divisor. Teach the squares of numbers up to 20, and the cubes to 12. Confine the advance work chiefly to decimals and denominate numbers. Teach decimal pointing, particularly in multiplication and division. Teach the reductions—decimals to common fractions, common fractions to decimals. Dictate decimals for writing and review frequently. Drill in the changing of denominate numbers from one denomination to another. Teach the pupil to use the meter, liter and gram, making models for the purpose. Teach addition and subtraction of denominate numbers, using easy combinations; do likewise in multiplication, calling special attention to the relative advantages of the common and the metric systems. Drill thoroughly on plastering, papering, carpeting, using many original problems

(see Suggestions). Give numerous simple problems in areas and volumes, using land, sidewalks, street-paving, boards, bins, chimneys, cellars, etc., introducing repeatedly all the simple surfaces and solids. Teach the form and use of simple accounts and bills. Ask pupils for original problems and drill upon the solutions. Make constant use of mental arithmetic.

#### GRADE SEVEN.

With special reference to their uses in percentage, review common and decimal fractions.

Teach longitude and time in connection with mathematical geography.

Teach the percentage equivalents of such simple fractions as  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{2}{3}$ ,  $\frac{1}{4}$ ,  $\frac{3}{4}$ ,  $\frac{1}{5}$ ,  $\frac{1}{6}$ ,  $\frac{1}{8}$ ,  $\frac{3}{8}$ ,  $\frac{5}{8}$  and  $\frac{7}{8}$  and *vice versa*, drilling incessantly from both standpoints.

Solve numerous easy problems based on the preceding percentages, obtaining results mentally. Give problems on what per cent. one number is of another, and on what per cent. one number is more or less than another. Have pupils give and solve similar problems.

Take up the following applications of percentage: profit and loss, commission, taxes, insurance and simple interest, including partial payments. At first use simple numbers only, all carefully chosen for the purpose, so that neither the size of the numbers nor the labor of the process may waste the energy of the pupil or distract his attention from the real principle involved. (See Suggestions.)

Have pupils propose original problems made up from their parents' tax receipts, and have the same solved in class. In simple interest, choose one good method, teaching it thoroughly and leaving all other methods for later years. Continue drills on business forms, such as accounts, bills, re-

ceipts, orders and simple notes. Urge the pupil to think out for himself the whole of the business transaction involved in each problem solved; have him describe the business transaction, and if necessary actually perform it before beginning the solution. (See Suggestions.) Emphasize work in mental arithmetic. (See Suggestions.)

## GRADE EIGHT.

Review briefly the leading principles of percentage and its applications. Teach true and bank discount, and stocks and bonds, with the accompanying business forms, checks, drafts, stock certificates, and bonds with and without interest coupons attached. Study out the various stamps and endorsements on the back of canceled checks; read a certificate of ditch company stock; do these things and any others that will familiarize the pupils with business forms and cause them to comprehend business transactions. Teach ratio, simple proportion, and give easy examples in compound proportion. Explain description and measurement of government lands, examining local warranty deeds, village and county plats and kindred forms. Teach the mensurations of the rectangle, parallelogram, triangle, trapezoid, regular polygon and circle, showing (by models, by cutting paper or pasteboard, or by figures on the blackboard) how the area of the parallelogram depends upon the rectangle, that of the triangle upon the parallelogram, and that of the trapezoid, regular polygon and circle, upon the triangle; in the same way, teach mensuration of the prism, pyramid, cylinder, cone and sphere. Teach square root, and possibly cube root, using blocks for illustration. Omit alligation, the two progressions, and equation of payments.

There should be a thorough review of arithmetic in the high school.

**PLACE AND GEOGRAPHY.**

## PLAN OF OUTLINE.

*Grades One and Two*—Place, or preparatory geography (oral).

*Grades Three, Four and First Half of Fifth*—Primary geography.

*Grades Five (last half), Six and First Half of Seventh*—Grammar school geography. By alternating with history the seventh grade work in geography may continue through entire year.

## GRADES ONE AND TWO.

(In the country school of all, or many, grades, it will be found impracticable to give much time in these two grades to the direct teaching of geography. This outline should be followed wherever the number of classes will permit.)

Lead the pupils to make observations of their surroundings. Note the highest land in your vicinity, the slopes, steep and gentle, with effect on flow of water. Make daily observation of the weather. Note the varying length of day; seasons; months by seasons; sky and what is seen there. Teach directions, relative right and left; cardinal points; simple use of compass, weather-vane, etc. Note direction of wind, location of buildings, etc. Connect study of plants and animals with geography by emphasizing habitat, distribution, uses. Model features in sand and clay. Presentation should be through direct observation; re-presentation may

well be made by use of sandboard. Drawing and planting are other modes of expression.

#### GRADE THREE.

Continue observation of the weather. Teach use of thermometer. Have daily record by the class. Make observations of your immediate neighborhood to represent as far as possible the earth in miniature. Observe forms of land, particularly slopes, and note the forces, such as running water, winds, heat and cold, upon these forms. Make use of sand-modeling and other modes of expression for same purpose as in previous grades. Teach the interpretation of globe and map as far as needed. Let the pupil map the features studied, following the plan of the standard map, so that when he comes to map reading he will have the power to interpret the map's meaning.

Present the earth as a whole (gradual development).

(a) Pictured as a ball with water and land surface; land surface consisting of world ridge with great slopes; four great highlands of the world ridge and oceans located by direction east and west, north and south; relative lengths of great slopes, and the largest rivers located; continents as homes of races of people, characteristic animals and plants.

(b) Daily rotation of the earth and results; heat belts as dependent on daily motion; axis, poles, equator, hemispheres (north and south).

During the first half of the year teach the geography of Colorado from the wall map. Note the physical features of each county, and the consequent occupations of the people. At the beginning of the second half of the year, put some suitable text in the pupils' hands, and teach them how to study it.

## GRADE FOUR.

Vary weather observations by introducing the almanac kept by pupils to show time of sunrise and sunset, varying length of day and night, phases of moon. This almanac should be kept at such times of the year as best to show the periods of lengthening and shortening daylight, the time of the longest day, shortest day, and day equal to night. Show relation of these periods to northing and southing of the sun. Map the school districts or other suitable district, following the plan of standard maps. Draw to scale.

Earth as a whole:

(a) Review of world ridge, great slopes, great drainage system, four great highlands, location of oceans.

(b) Shape of earth with proofs (inductive), relative size, daily motion, belts of heat and climate, hemispheres (north and south, east and west), with location in them of continents.

(c) Study all continents according to following outline: position, relative size, general form, surrounding oceans, largest islands, principal slopes, largest river and lake, climate (warm or cold), a few large cities, people, leading products. Compare at each point with preceding continent studied.

Elementary text completed.

## GRADE FIVE—FIRST HALF.

1. Observation and experiment.
2. Teach globe and map symbols new to pupils.

In map sketching, which should now be extended beyond the school district to the United States and its parts, have the pupils use the standard map symbols. Quick sketches

with one central idea, not elaborate map making, should be encouraged.

3. The study of the United States as a whole, corresponding with the study of the United States in the earlier part of the elementary book and that given in the primary geographies.

Topics: position, form, extent, relief (related to North America), rivers and great lakes, climate, products, waterways, railways, people, government.

4. Groups of states.

(a) Natural groups as related to the slopes; e. g., Atlantic slope states, Gulf slope states, etc.

(b) Productive groups; e. g., wheat states, cattle states, etc.

(c) Historical groups (only those of importance); e. g., original thirteen states, Northwest Territory, Mexican Territory, Louisiana Purchase.

#### GRADE FIVE—LAST HALF.

1. Observation and experiment.

Yearly motion, revolution of the earth about the sun, taught inductively as far as possible. Almanac taught in fourth grade as a basis. Northing and southing of stars due to earth's yearly motion, also a basis for pupils' conclusions. Teach seasons. Establish a noon line.

Globe and map reading. Teach meridian lines, parallels of latitude, ecliptic, and boundaries of zones. Practice in finding latitude and longitude. Note places on same parallel having widely different climate and causes of difference.

Typical land, ocean and atmospheric forms, and the forces acting on them. Use North America and Atlantic

Ocean as units of comparison with other continents and oceans.

The continental slopes and the action on them of water, wind, and heat, are the basis of this study. The practical results on climate, countries, people, plant and animal life should be noted. Important topics to be taught under this head are greater and lesser highlands, with effects on climate and life; valleys in their influence on trade routes; coastal plains and products; food plains and products; submerged coasts and effects on commerce; trade winds, origin and modification by land masses, with results to commerce; ocean currents and effects; relative position of continents. (Other topics will suggest themselves.)

The aim of this half year's work is to lay a thorough basis (without an exhaustive study of each continent in every detail) for the political, commercial and industrial geography of the following grades.

#### GRADE SIX.

1. Observation and experiment.
2. Current geography.
3. Globe, map and text study.

Study the great empires and important countries, except the United States. Refer constantly to topics treated in the last half of the fifth grade. Emphasize the controlling causes of the distribution of people. Closely connect with historical studies of the grade. Constantly compare the countries studied, and use previously acquired knowledge of the United States as unit of comparison. Emphasize the thoroughly modern features of civilization; inventions, growths of railways and manufactures, education and schools, etc. Use outlines of topics for study of countries given in standard texts.

## GRADE SEVEN—HALF YEAR.

Either for four months, or during the year, alternating with history.

1. Current geography.
2. Globe, map and text study.

General topical review. (Two months.)

United States: "International Date Line." "Standard Time." (See Arithmetic—Longitude and Time.)

Later development of manufactures and commerce, inventions, growing output of products, railroads, great ocean routes, schools, government. (One month.)

Colorado. (One month.)

Let the geography of the seventh grade be a natural preparation for the study of United States history.

*Note*—Sand-modeling has two uses: to reproduce pupils' images of forms already objectively studied, and to aid in imaging forms beyond the child's vision.

Every field excursion should have a definite and limited aim. An excursion, no more than a room recitation, can be expected to teach "geology, minerals, plants, all at one time." Go out to note a single principle. Let the number of excursions be determined by the needs of the class. An excursion without the personal direction of the teacher will be no more successful than a recitation without the personal guidance of the teacher.

Pictures, well selected and classified, are a great aid in imaging forms of land beyond vision.

Although plant and animal study have not been often referred to, a more extended study, according to the principle laid down for the first and second grades, will be very helpful. This study need not be made a part of the geog-

raphy course. Too much stress can not be laid upon the importance of experimental study of the forces of nature. (See Nature Study and Science Course.)

Without recommending any particular text book, the publications of Redway and Hinman, Alex Frye, H. S. Tarbell (The Werner Series), the Maury series, and that of Rand and McNally, are mentioned as among the leading texts adapted to the grades. Of supplementary books for the grades, such as "Seven Little Sisters" of the Jane Andrews series, there is a great and increasing supply from the leading publishers. Consult publishers' lists to find the best of helpful reference books.

#### Books for Use in Connection with Geography and History.

In the lower grades some of these books must be read to the children. As the work advances many of the books assigned to certain grades will be found of value in higher grades, and of equal interest to older pupils. All contain matter available for oral use by the teacher.

##### *Grades One and Two.*

(To be read to the children.)

Seven Little Sisters.....	G. & Co.
Each and All.....	G. & Co.
Aunt Martha's Corner Cupboard.....	B. S. Co.
Friends in Feathers and Fur.....	A. B. C.
Wings and Stings.....	A. B. C.
Story of Pocahontas.....	E. P. Co.
Stories of Great Americans for Little Americans.....	A. B. C.
Wee Ones of Japan.....	A. B. C.
Washington (Young Folk's Library of Choice Literature).....	E. P. Co.
The World and Its People, I, II.....	S. B. & Co.
Geography for Young People, I.....	E. P. Co.

*Grade Three.*

Geographical Nature Studies.....	A. B. C.
Story of the Norsemen.....	E. P. Co.
Friends and Helpers.....	G. & Co.
Geography for Young Folks, II.....	E. P. Co.
Stories of the United States.....	E. P. Co.
Stories of the United States for Youngest Readers.....	E. P. Co.
Stories of the American Pioneers.....	E. P. Co.
Stories of Colonial Children.....	E. P. Co.
Story of Columbus, of Lincoln, etc.....	E. P. Co.
Stories of Animal Life and Adventure (Eggleston).....	B. S. Co.
American History, Series I. and II.....	E. P. Co.
Story of Boston Tea Party.....	E. P. Co.
Liberty Bell.....	E. P. Co.
Stories of the Revolution, I, II. and III.....	E. P. Co.
Stories of Great Inventors.....	E. P. Co.

*Grade Four.*

Zig-Zag Journeys (in various lands) (Butterworth).....	A. C. Mc
Three Vassar Girls (in various lands).....	B. S. Co.
Water Babies.....	G. & Co.
Spectacles for Young Eyes—Russia—Rome.....	D. F. & Co.
The Children of the Cold.....	E. P. Co.
The World and Its People, III.....	S. B. & Co.
American History, Series III. and IV.....	E. P. Co.
American Indians.....	D. C. H.
Four Great Americans.....	W
Story of the Great Republic (Guerber).....	A. B. C.
The Story of Our Country (Burton).....	W.
Primary History of the United States.....	L.
Noble Deeds of Our Fathers.....	A. C. Mc.
Pacific History Stories.....	W. R. & Co.
Tales of Discovery on the Pacific Coast.....	W. R. & Co.
Discoverers and Explorers.....	G. & Co.
Biographical Stories of Great Americans.....	W.
Lafayette, the Friend of Liberty.....	W.
Docas, the Indian Boy.....	D. C. H.
Old Times in the Colonies.....	H.

*Grade Five.*

Fairy Land of Science.....	D. A.
Stories of Star Land.....	P. & P.

Boy Travelers in China and Japan.....	H.
On the Banks of the Amazon.....	A. C. Mc.
Wild Life Under the Equator.....	A. C. Mc.
Hans Brinker, or The Silver Skates.....	A. C. Mc.
The World and Its People—IV.....	S. B. & Co.
Home Geography—First Book.....	McM.
Our Fatherland.....	E. P. Co.
Storyland of Stars.....	E. P. Co.
First Steps in the History of Our Country.....	S. B. & Co.
Four American Patriots.....	W.
Children's Life of Lincoln.....	A. C. Mc.
Pilgrim and Puritan.....	G. & Co.
The Green Mountain Boys.....	R. & McN.
American History Series—IV.....	E. P. Co.
Four American Naval Heroes.....	W.
Stories of Our Country—II.....	A. B. C.
From Colony to Commonwealth.....	G. & Co.
Stories of New York.....	G. & Co.
The Wampum Belt.....	A. C. Mc.
Stories of Georgia, of Pennsylvania, of Missouri, of Indiana, etc.....	A. B. C.

*Grade Six.*

Lessons in the New Geography.....	D. C. H.
Stories of Other Lands.....	A. B. C.
Alice's Visit to the Hawaiian Islands.....	A. B. C.
Boy Travelers in Africa.....	K. & H.
Stories of India.....	E. P. Co.
Boys of the Sierras.....	A. C. Mc.
The Land of the Incas.....	A. C. Mc.
The Sketch Book.....	A. C. Mc.
Brave Little Holland.....	H. M. & Co.
Home Studies in Nature.....	A. B. C.
Stories of Australasia.....	E. P. Co.
Child's History of France.....	A. C. Mc.
Carpenter's Geographical Readers, S. A., N. A., Asia, etc.....	A. B. C.
The Prairie (Cooper).....	A. C. Mc.
Boys Who Became Famous.....	A. C. Mc.
Cortez and Montezuma.....	E. P. Co.
Pizarro.....	E. P. Co.
DeSoto, Marquette and LaSalle.....	E. P. Co.
Stories of Our Country—III.....	A. B. C.
The Great West.....	E. P. Co.
Heroes of the Middle West.....	G. & Co.

Boys of Greenway Court.....	A. C. Mc.
The Pilot of the Mayflower.....	A. C. Mc.
A New England Girlhood.....	H. M. & Co.
Philip of Pokanoket.....	E. P. Co.
Colonial Massachusetts.....	S. B. & Co.
Grandfather's Chair.....	H. M. & Co.

See previous grade lists.

*Grade Seven.*

Child's History of France.....	A. B. C.
Stories of England.....	A. B. C.
Stories of Northern Europe.....	A. B. C. or E. P. Co.
Stories of Australia.....	A. B. C.
Stories of Industry.....	E. P. Co.
The World and Its People—V. to IX.....	S. B. & Co.
Fridtjof Nansen.....	D. C. H.
Boys of '76 (Coffin).....	A. C. Mc.
Four American Poets.....	W.
Washington and His Country.....	B. S. Co.
True to His Home (Franklin's Boyhood).....	A. C. Mc.
Last of the Mohicans.....	B. S. Co.
Household History of the United States.....	A. C. Mc.
Boys of 1812, and Other Naval Heroes.....	A. C. Mc.
Building of the Nation.....	H.
Men, Women and Manners in Colonial Times.....	A. C. Mc.
Washington and His Generals.....	A. C. Mc.
Washington's Farewell Address.....	A. C. Mc.

See previous grade lists.

*Grade Eight.*

A Short History of France.....	A. C. Mc.
Boys of Other Countries.....	B. S. Co.
Forest and Jungle.....	W.
History of Mexico.....	W.
The Fair God.....	B. S. Co.
Views Afoot.....	B. S. Co.
The Aztecs: Their History, Manners and Customs.....	A. C. Mc.
Boy Travelers in Mexico and Central America.....	A. C. Mc.
History of Switzerland.....	W.
What She Taught Us.....	B. S. Co.
Two Years Before the Mast (Dana).....	B. S. Co.
Australasia and the Islands of the Sea...*	S. B. & Co.

Ballou's Footprints of Travel.....	G. & Co.
Franklin's Autobiography, R. L. S.....	H. M. & Co.
Boots and Saddles.....	A. C. Mc.
From Log Cabin to White House.....	B. S. Co.
Our Boys.....	W.
The Story of America.....	W.
Young Folk's History of the Civil War.....	W.
Hero Tales from American History.....	B. S. & Co.
Jesuits in North America.....	A. C. Mc.
The Oregon Trail.....	B. S. Co.
A Man Without a Country.....	B. S. Co.
Story of Mexico (Hale).....	A. C. Mc.
The Making of a Nation (Walker).....	B. S. Co.
The Critical Period (Burgess).....	B. S. Co.
Our Great West.....	A. C. Mc.
How Marcus Whitman Saved Oregon.....	A. C. Mc.
Spanish Pioneers.....	B. S. Co.

See previous grade lists.

In several instances where name of publisher is not known, A. C. Mc. or B. S. Co. has been given—they being general bookdealers; or apply to any reliable home dealer.

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## HISTORY.

Biography is one of the most valuable adjuncts to the teaching of history. The individuality of a noted person appeals to the pupil's interest far more than a century or epoch. The history of a country is the history of its leaders, and brief biographies should be constantly used. Books relating to the childhood of noted individuals are especially interesting to children.

The memory should not be burdened with a number of historical dates, but the most important ones should be carefully committed, the time, the event and the individual being its component parts.

Current events should be taught, but not insignificant events. Select those of value and use.

Helpful books for the teacher's use are:

Fiske's Histories. A. C. Mc.

McMaster's Histories. A. B. Co.

The Beginners of Our Nation. (Eggleston.) A. C. Mc.

Montgomery's Students' History. A. B. Co.

Channing's History of the United States. A. C. Mc.

Parkman's Histories. A. C. Mc.

The English Colonies in America. (Henry Cabot Lodge.)  
A. C. Mc.

Virginia (American Commonwealth Series). (John Esten Cooke.) A. C. Mc.

Special Methods in History. (McMurry.) P. S. P. Co.

The Boyhood of Great Men. (J. G. Edgar.) A. C. Mc.

#### GRADES ONE AND TWO.

Where time permits, history should be taught in all the grades. In the first two grades its teaching should consist of story-telling and story-reproduction, and may be made the basis of some of the language work. Make each recurring holiday the occasion of a history lesson that will sink deep into the consciousness of the child. Note the anniversaries of the birth or death of great men, introducing stories of their childhood, and anniversaries of other important historical events. Tell incidents of the early days of Colorado, emphasizing important events or personages associated with your locality.

#### GRADE THREE.

Continue the work of the first and second grades and enlarge upon it. Let at least part of the supplementary

reading be historical. Teach the history of Colorado while teaching its geography. Each is a help to the other, and history and geography should be closely correlated in all the grades.

#### GRADES FOUR, FIVE AND SIX.

Have such reading lessons from some primary history as you can find time for. Ask for occasional reproductions of interesting historical incidents. Plan your celebrations of holidays with a view to impressing the associated historical lesson. Talk to the pupils about such points of European history as have a bearing on the topic under consideration, and lead them, if possible, to read widely upon these themes. Discuss current events at home and abroad. Assign certain topics of current history to certain pupils, and call for reports or have bulletins of current events published daily or weekly on the board by the pupils.

First Steps in the History of Our Country, or The Story of Our Country, Montgomery's Elementary or other suitable text-books may be used, if desired, in the fifth and sixth grades.

#### GRADE SEVEN.

Place complete text-book in the hands of the pupils, alternating with geography, and work through the revolutionary war. Assign lessons by topics, and let information be gained from any accessible source. It may be that in some districts no source of information will be accessible aside from the book in the hands of the pupil; but wherever other books can be had, either the property of the teacher or in the pupils' homes, or in the district library, the method suggested will be found the most satisfactory. However you may suffer from lack of books, do not allow the pupil to ac-

quire the notion that all the information to be had concerning the history of the United States is contained between the covers of the particular text in his hands.

#### GRADE EIGHT.

Cover the remaining topics by the end of the first six months. The remainder of the year may be devoted chiefly to civil government. If it is desirable to minimize the number of classes, the seventh and eighth grades may pursue the study of history together for the entire year, the seventh grade alternating history with geography. Having finished the revolutionary war in the seventh grade, the eighth grade will begin the second division of the subject. Let the seventh grade take the second division of history with the eighth grade. The next year the work of the eighth grade will be the first division of history. It is not absolutely essential that the History of the United States be studied as a sequence of events.

Suitable text-books for the class are Montgomery's, McMaster's, Fiske's, Morris' and other recent publications.

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#### CIVICS.

Every good citizen must know something concerning the principles of government and their applications. The foundations of this knowledge can best be laid in the public schools; therefore, careful and systematic instruction should be given.

The child may be led, through an understanding of the home and school government, to that of town or city, county, state and nation.

The individual responsibility of the citizen for the management of public affairs should be made apparent. There should be no teaching of partisan politics in the public schools, but there should be a careful study of political principles in connection with public events. This can be done without discussion but as facts learned in connection with history. At the time of political campaigns, when children are interested, as are their elders, the names and functions of the offices to be filled should be impressed upon them to the extent of the work in their special grade.

Endeavor to develop an intelligent understanding of our country and its institutions, based upon an appreciation of its merits, and a sense of what we owe it in return for what it does for us. This will result in love of our country and genuine patriotism. But do not teach an unreasoning love that makes an indiscriminating acceptance of all its acts or conditions. Not "My country, right or wrong," but "My country, to be kept in the right," is the true patriotic idea.

*Primary Grades*—Home government—Relative duties of parent and child.

School government—Relative duties of teacher and pupil. Duty of child to community.

Names and general function of members of the school board, of mayor of town or city, of governor of Colorado, of president of the United States.

In fourth grade add term of office and time when elected.

*Fifth and Sixth Grades*—Review previous work. The state legislature and its functions, two branches, place of meeting. Federal congress, branches, place of meeting. How the people vote for president, governor, senators and representatives. President's cabinet, how chosen, and divisions under the several departments.

*Seventh Grade*—Review previous work.

The Australian ballot as used in Colorado.

The making of laws, functions of two houses of congress and president in making these laws.

*Eighth Grade*—Thoroughly review previous work of grades. Use a good text book for the study of the United States Constitution.

Dole's American Citizen, Judson's Young Citizen, Morgan's Patriotic Citizenship, or similar books may be used. Fiske's and Macy's text books upon Civil Government are excellent reference books for United States government; and for government of Colorado, Hatch's or Young's Civil Government of Colorado are excellent.

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### PHYSIOLOGY AND HYGIENE.

In the fifth grade make a study of hygiene from some good text. Explain why frequent bathing is necessary, why food should be eaten slowly, and why perfect ventilation is essential to good health. Impress upon the mind the evil effects of alcohol and narcotics, making clear the harm resulting to immature minds and bodies from the use of tobacco. Let formal physiology be taught as completely as possible in the eighth grade, using some good text book.

In country schools, or in small village schools where several grades are in one room, it may be well to present the subject of hygiene to the whole room in the form of general lessons. The laws of health, and such information concerning the human body as tends to promote their observance, should be presented to all alike.

In schools having a nine months' term, the following arrangement of topics for a general lesson each week during the thirty-six weeks will be found valuable, and its use is recommended :

1. Parts of the Body.
2. Parts of the Head.
3. Parts of the Face.
4. Neck.
5. Parts of the Trunk.
6. Arms.
7. The Hand.
8. Legs.
9. Feet.
10. Skin.
11. Muscles.
12. Circulation.
13. Respiration.
14. Nervous System.
15. Eye—Sight.
16. Ear—Hearing.
17. Nose—Smell.
18. Tongue—Taste.
19. Touch.
20. Teeth.
21. Skeleton.
22. Digestion.
23. Food and Drink.
24. Habit — Stimulants — Narcotics — Tobacco—Alcohol.
25. Poisons—Antidotes.

26. Voice—Abdominal Respiration.
  27. Carriage—Grace—Style.
  28. Physical Exercise—Over-exertion.
  29. Personal Imprudence—Exposure.
  30. Sleep—Sleeping Room—Ventilation.
  31. Over-work—Worry—Violent Passion.
  32. Germ Theory of Disease—Contagion—Epidemic.
  33. Sanitation—Disinfectants.
  34. Baths—Bathing.
  35. Accidents—Emergencies.
  36. Health—Disease.
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For schools of shorter term the following outline for general lessons is recommended :

1. Food: Various kinds and their uses; regularity in eating; digestive organs; drink, need of water, effect of alcohol on lining and juices of stomach; danger of over-eating.

2. The Skin: Number and names of parts; function of pores; need of bathing and exercise.

3. The Bones: Number; how placed, how moved; kinds of joints; vertebræ; marrow; arrangement of cartilage; necessity of erect posture.

4. The Brain: Nervous system, with communication with brain; conveying of sensation to, and orders from, consciousness; effect of narcotics.

5. The Teeth: First set; second set; different kinds for different functions; care of teeth.

6. The Blood: Composition; arteries and veins; need of pure air; need of good circulation.

7. The Heart: Structure; course of circulation; cause of quickened or slow beating; effect of alcohol and narcotics.

8. The Lungs: Structure; covering; contents; use to blood; effect of tight clothing; effect of impure air.

9. The Muscles: Function; kinds; shape; strength.

10. The eye: Parts; delicacy of organism; harmfulness of poor light, of crying; treatment of abnormalities of vision.

11. The Ear: Parts; function of wax; how sound is conveyed to brain; connection of ear and throat; danger of blows on the ear.

Among the many good texts, the following are recommended:

Hutchinson (M. & M.).

Overton (A. B. C.).

Blaisdell (G. & Co.).

Cutter (L.).

Steele (A. B. C.). (If this author is selected, use Pathfinder, No. 2, or some similar book, in fifth grade.)

Baldwin (W.).

Colton (D. C. H.).

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### NATURE STUDY.

The aim of nature study is the cultivation of that scientific attitude of mind which is so necessary in our modern civilization, the formation of habits of accurate and intelligent observation and the acquisition of facts relating to the phenomena of nature which will be of use to the pupils in

their further study and in life. But, above all, the aim should be to awaken love and sympathy for nature which will broaden and deepen the emotional life of the pupil.

"Facts are stupid things until brought into connection with some general law." It should therefore be the aim of the teacher to point out the relationship of the phenomena observed. Care must be taken not to overburden the pupil with technical names and dry facts. Do not attempt too much, but seek to do well what is done.

The following is offered as a suggestive outline for nature study in the country schools of the state. The sections on plants and animals may be used for the four primary grades. A more extended treatment of these sections, together with the other two sections, may be used for the other four grades:

## SEPTEMBER.

PLANT LIFE.	ANIMAL LIFE.	THE EARTH.	THE SKY. ATMOSPHERE, ETC.
Parts of plant and functions. Production of seeds is the object of the plant. Seeds and fruit. Dissemination of seeds. Study goldenrod, sunflower, daisy.	Bees—Habits, uses to man and to flowers. Fly. Grasshopper.	The earth in its relation to the solar system. Condition of interior. Surface changes.	Weather record should be kept throughout the year. Kinds of clouds. Distinguish planets from stars.

## OCTOBER.

Compare roots of potato, turnip, onion, sunflower, tree. Name classes of roots. Flowering plants, any of the above, and flowerless, ferns.	Habits of ants. Metamorphosis of caterpillars. English sparrows. Live and dead specimens may be studied for covering, structure, feet, bill, etc.	Earth's crust. Classes of rocks; igneous, granite, lava, etc., metamorphic, marble, slate, etc., changed by heat; sedimentary. Detailed study of formation and kinds of sedimentary rocks.	Stars are suns very far away. Star groups, as Orion, Pleiades, Big Dipper, etc. Motions of earth, causing day and night, and changes of seasons.
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## NOVEMBER.

Annuals, biennials, perennials. Protection through winter of seeds and plants. Falling leaves and next year's buds. Name familiar trees and kinds of wood.	Covering of animals; horse, sheep, rabbit, etc. Food supply for winter. Migration and hibernation.	Wearing away of land. Erosion. Formation of canons, valleys, etc. Formation of soil by weathering and erosion. Smooth and rough stones.	Composition of air. Uses of each part. Uses of air and winds. Pure air is necessary. Ventilation.
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## DECEMBER.

PLANT LIFE.	ANIMAL LIFE.	THE EARTH.	THE SKY, ATMOSPHERE ETC.
Evergreen trees. Spruce and pine. Holly and mistletoe.	Dog and his relatives. Wolf, coyote, etc. Cat, mountain lion, tiger, etc.	Rivers and river valleys. Fertility of soil in valleys. Plains and mountains. Mountains pushed up by crumpling of earth's crust and worn down by water.	Forms of clouds. Color of sunset and sunrise. Color of thin clouds due to ice crystals. Snow, not frozen rain, but water vapor frozen as it condenses.

## JANUARY.

House plants. Germination of seeds. Pupils to plant seeds at home and report on observations. Plant peas, beans, corn, squash, etc., in school for class study.	Teeth and the food of animals. Feet and manner of life.	Earthquakes, volcanoes and hot springs. Get modern text book on these topics. Earth hot but not molten inside.	Climate and weather. Forms of water. Melting, boiling, evaporation and condensation. Boiling point and thermometer.
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## FEBRUARY.

Wheat, flour and bread. In this connection yeast and moulds may be studied. Other food grains, rice, corn, coffee, etc.	Watch for spring migration of birds. Study ducks, robins, etc., as they return. Story of migration of storks.	Formation and mining of coal. Discussion of petroleum.	Storms and their causes. Fog, mist, haze, dew, frost, rain, snow, hail. Rainfall of Colorado. Arid and semi-arid regions.
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**MARCH.**

PLANT LIFE.	ANIMAL LIFE.	THE EARTH.	THE SKY, ATMOSPHERE, ETC.
Buds. Food supply of seeds. Germination and growth.	Fish, oysters, crayfish, etc. Food fishes.	Salt. Origin of salt beds. Methods of mining and purifying. Crystalization and crystals.	Irrigation, sunshine and energy from sun. Waterpower. Thunderstorms.

**APRIL.**

Forests and their preservation. Evils arising from their destruction. Parts of flower, analysis and classification.	Birds, nesting and eggs. Value of birds to man. Extinct birds and animals.	Outline of the geological history of the earth. Fossils. Chief features of each geological period.	Electricity and lightning.
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**MAY AND JUNE.**

Gardening and farming. Cultivated plants and weeds. Collection and classification of local plants.	Food animals, domestic and wild. Origin of domestic animals.	Geological history of Colorado. Mineral veins and mining, or soils and agriculture.	Rainbow and study of light.
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Some books that are helpful for the teacher's use are:

Mrs. Wilson's "Nature Study for Elementary Schools." (McM.)

Tarr's "Physical Geography." (McM.)

Howe's "Systematic Science Teaching." (Appleton.)

McMurry's "Special Method in Science." (Pub. Sch. Pub. Co.)

"How Plants Grow," Gray. (A. B. C.)

"Handbook of Nature Study," Lange. (McM.)

"Elementary Lessons in Zoology," Needham. (A. B. C.)

"Davis' Physical Geography." (Ginn & Co.)

"Natural History Object Lessons," Ricks. (D. C. H.)

"Birds of the United States," Apgar. (A. B. C.)

"Animal Life in the Sea and on the Land," Cooper. (A. B. C.)

"Citizen Bird," Wright. (McM.)

For teachers desiring a more formal course, the outlines following have been suggested. It is intended that four lessons be given each week, one relating to each section.

The topics of Sections I. and II. may be given as a part of the course in geography. The excursions required for the proper presentation of the lessons in these Sections may be taken at the noon hour.

### *Section I.*

#### Natural Features and Phenomena within Horizon.

1. Lines—Straight—Bent—Crooked.
2. Lines—Vertical—Horizontal—Oblique.
3. Square—Oblong.

4. Curve—Circle—Ring.
5. Sphere.
6. Colors.
7. School Room.
8. Black Board.
9. Things in the School Room.
10. Position.
11. Sun.
12. Moon.
13. Stars.
14. Ground.
15. Direction.
16. School Grounds.
17. Garden—Field—Meadow.
18. Vacation.
19. Weather.
20. Clouds—Wind.
21. Rain—Rainbow.
22. Hail—Snow—Ice.
23. Dew—Frost.
24. Day—Shadow—Night.
25. Seasons—Months—Year.
26. Plants—Trees, Etc.
27. Insects.
28. Reptiles.
29. Birds.
30. Wild Animals.
31. Domestic Animals.
32. Man.

33. Home—Ownership.
34. Road—Ownership.
35. School—Ownership.
36. Horizon—The World of the Child.

*Section II.*

Natural Features and Phenomena within Horizon.

1. Lines—Perpendicular—Parallel.
2. Angles — Triangles—Square—Oblong—Polygon—  
Circle.
3. Sphere — Cube — Prism—Cylinder—Cone—Pyra-  
mid.
4. Colors.
5. Buildings.
6. Plain—Slope—Hill—Mountain.
7. Valley—Divide, etc.
8. Springs.
9. Stream—Ditch—Reservoir—Pond—Lake.
10. Trail—Road—Ford—Bridge.
11. Rain—Hail—Snow.
12. Storm—Thunder—Lightning—Clouds—Winds.
13. Time — Day — Night—Week—Month—Seasons—  
Year.
14. Distance—Measures.
15. Relative Positions of Geographical Features in the  
Horizon.
16. Comparison of Natural Features in the Horizon.
17. Rocks—Soil.
18. Plants.
19. Animals.

20. People.
21. Occupations.
22. Productions.
23. Transportation—Money.
24. Shops—Money—Property.
25. Stores—Money—Property.
26. Home—Property—Ownership.
27. School—Ownership.
28. Churches—Ownership.
29. Towns—Ownership.
30. Post-office—Ownership.
31. Newspaper—Ownership.
32. Officers.
33. Government.
34. City—Ownership.
35. County—State—Ownership.
36. United States—Ownership.

*Section .III.*

Plants.

1. Seed.
2. Germination — Root—Stem—Cotyledon—Plumule.
3. Roots—Kinds and Uses.
4. Stems—Kinds and Uses.
5. Leaves—Kinds—Forms and Uses.
6. Buds—Kinds and Uses.
7. Flowers—Kinds—Colors—Uses and Parts.
8. Fertilization.
9. Fruits and Seeds.

10. Distribution of Seeds—Propagation of Plants.
11. Geographical Distribution of Plants.
12. Uses of Plants.
13. Plants — Domestic—Wild—Cultivation—Grafting.
14. Annuals—Biennials—Perennials.
15. Herb—Shrub—Tree.
16. Root—Sap—Leaves—Bark—Wood.
17. Sugar.
18. Starch.
19. Tar—Pitch—Turpentine—Resin.
20. Gum — India Rubber — Gutta Percha — Opium—  
Camphor.
21. Fats and Oils.
22. Bacteria—Yeast—Mould.
23. Mildew—Wheat Rust—Smut—Puff Balls—Toad-  
stool.
24. Lichens—Mosses—Ferns.
25. Algæ.
26. Grasses.
27. Cereals.
28. Cotton—Hemp—Flax—Jute—Paper.
29. Leguminosæ.
30. Tea Plant.
31. Spices and Coffee.
32. Deciduous Trees—Oak—Walnut—Hickory—Hazel.
33. Evergreens—Pine—Spruce—Juniper.
34. Palm.
35. Woods—Timber—Lumber.
36. The Columbine and Silver Spruce.

*Section IV.***Animals.**

1. Amœba.
2. Sponges.
3. Polyp—Coral.
4. Snail—Oyster—Pearl.
5. Starfish.
6. Worm—Soil.
7. Insects—Homes—Protective Coloration.
8. Metamorphosis—Silk.
9. Crayfish.
10. Tunicate—Amphioxus.
11. Fish—Scales—Gelatin—Glue.
12. Frog—Metamorphosis.
13. Snake — Turtle — Swift — Alligator — Scales —  
Leather.
14. Hibernation.
15. Pigeon—Feathers—Eggs.
16. Beaks—Bills—Feet.
17. Migration—Habitation.
18. Mammals.
19. Covering.
20. Claws—Hoofs—Nails.
21. Fins—Wings—Arms.
22. Tongues—Teeth—Ivory.
23. Geographical Distribution of Animals — Adapta-  
tion.
24. Protection — Horns — Tail—Coloration—Flight—  
Armor—Home.

25. Beaver—Squirrel—Rabbit.
  26. Cat.
  27. Dog.
  28. Seal—Walrus—Whale.
  29. Cow—Sheep—Goat—Deer—Bison—Elk.
  30. Horse—Burro—Zebra.
  31. Camel—Llama.
  32. Wild Boar.
  33. Elephant — Rhinoceros — Hippopotamus — Tapir  
—Giraffe.
  34. Kangaroo — Opossum — Armadillo — Ornithor-  
hynchus—Bat.
  35. Monkey.
  36. Man.
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Reference may be made to the following books:

- An Introduction to the Study of Society, by Small and  
Vincent. A. B. C.
- Natural Geographies. A. B. C.
- Guyot's Geographical Reader. A. B. C.
- Science Primers. A. B. C.
- Object Lessons in Natural Science. McM.
- Bowen's Astronomy by Observation. A. B. C.
- Todd's New Astronomy. A. B. C.
- Physical Geography. Davis. Ginn & Co.
- Eclectic Physical Geography. A. B. C.
- Tarr's Elementary Physical Geography. McM. & Co.
- Hooker's Child's Book of Nature. A. B. C.
- Bert's First Steps in Scientific Knowledge. Lippincott.
- Gray's Lessons in Botany. A. B. C.

Bergen's Botany. Ginn.

Bessey's Essentials of Botany. Holt.

Sedgwick and Wilson's General Biology. Holt.

Burnet's School Zoology. A. B. C.

Packard's Zoology. Holt.

Parker's Elementary Biology. McM.

## ETHICS.

It has been well said that "The object of moral education is to push thought, feeling and right decision into immediate action. It is the public school teacher who must make right doing become second nature, who must so mould the plastic nerve cells of the young child that his nervous system will become a helpful moral machine, controlling self and not trampling upon others."

This is placing a great responsibility upon the teachers, yet we feel assured that they realize that it is not enough to give our children a thorough intellectual training, since the education of the heart is even more essential to the welfare of society and to individual happiness. The teacher, then, should seize every opportunity to cultivate in the child a strict regard for the rights and feelings of whatever has feelings, since this is the cardinal principle of civilization, of courtesy, of humanity and of Christianity. Kindness is essential to peace and happiness in home or school, and to inculcate it in the minds of the young is the great duty and privilege of every educator. Hiram Powers said, "The greatest need of America is more education of the heart," and the every-day life and work of the school present numberless opportunities for the establishment of the many virtues of which kindness is the underlying principle. Besides this, lessons may be given through talks by the teacher, or stories read, illustrating some moral, or conversations with the pupils, and encouragement should be given them to relate deeds of courage or humanity. Special emphasis should be given to

inculcating a thorough understanding of the obligations of all mankind to mercifully use and protect those that have well been called Our Dumb Friends, upon which so much of our welfare and comfort and happiness depend. To protect them means indeed to protect ourselves. It is practically true that "as all crime is cruel, to abolish cruelty is to abolish crime." Children are naturally fond of animals and by no other means can kindness be so thoroughly inculcated in them as by humane teaching and example. It will be found to afford the highest kind of discipline and will bring about a broad appreciation of Nature and love for her works which will be the source of happiness through life.

While this subject is pre-eminently the one which should be left to the individual genius of the teacher and which must be essentially so left, yet even in this, viewed as a branch of study in our schools, plan and system have their place, and while the daily needs of a given school must be the chief determinants of the teacher's course, the following general suggestions are offered as likely to be helpful in formulating something definite upon the subject.

The subjects of the talks given briefly by the teacher, and from time to time shared by the children, may be upon such subjects as follow. Stories from history, biography and general literature, and from personal experiences, may be often contributed, illustrating the topic of discussion, and frequently an appropriate selection memorized.

Humaneness to all living creatures.

Honesty. Truth-telling.

Punctuality—due to others; essential for our own success.

Thoroughness in work.

Neatness in appearance—in care of belongings.

Politeness—treatment of the home-people, of school-mates, of elders, of strangers.

Courtesy in conversation—interruptions, contradictions, tones.

Conduct on the street and in public places—evidences of good breeding.

Property rights—possession and use.

Personal rights—infringement upon personal rights of others; liberties taken with younger or weaker people.

Self-control—yielding to others; keeping one's temper; mastering the tongue.

## MISCELLANEOUS NOTES AND REMARKS.

### CLASSIFICATION—RECORDS—DIPLOMAS.

1. To avoid multiplicity of classes it is necessary that your school be classified. Base your classification chiefly on the work in arithmetic, as this is the generally accepted basis. You should, however, also be guided by the number of studies an irregular pupil may have in any one grade. The first classification of pupils should be made with care, and then not changed without good reasons.

2. A pupil's standing should be recorded, and at the close of each term a certificate of classification and standing should be issued, a copy being retained for use of the succeeding teacher. Similar certificates should be given pupils moving to another district. Blank certificates may be obtained from the county superintendent.

3. The classification record left by a teacher should show the position and work of each pupil at the time he left the school or at the close of the term.

4. The Common School Diploma granted by the county superintendent upon examination should signify that the bearer has completed the work in the common English branches, is possessed of a good working knowledge of the same, and is prepared to enter upon a course of instruction in any secondary school in the state. The examination should be thorough and exacting, but the county superintendent should exercise a wise "professional discretion" in granting the diploma.

In some counties suitable exercises are held at some central point and participated in by the eighth grade graduates from all portions of the county; in others, the graduates of adjoining districts assemble and, after appropriate exercises, are given their diplomas. Such gatherings serve to arouse and maintain an abiding interest in education, and children in the lower grades are encouraged to continue unto the end. The possession of a well earned diploma, which is granted only on merit and which is "worth its face," is a real honor, and children of the rural schools are entitled to the opportunity of securing such an evidence of their attainments. That the use of the common school diploma and the holding of the county graduation exercises have resulted in great good there is abundant evidence, and the practice is commended to all county superintendents.

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### RECITATION.

It is in the recitation that the influence of the teacher is most telling, and that his fitness or unfitness for his work becomes most evident. Many excellent plans and suggestions may be obtained from pedagogical works, and though all must be applied with careful estimation of their adaptability to the teacher's individuality, certain general principles are useful as a guide to all. The division often given is excellent—Preparation, Presentation, Recapitulation, Application. The teacher should never undertake a class recitation without thorough preparation for the lesson of the day, and especially in such branches as Geography, History, Nature Study, should have no text book in hand.

In presenting the new lesson, the ideas should be compared with those already acquired, and their relations with

each other determined, then the practical application of the knowledge pointed out or logically discovered by the pupils.

The third step should review in systematic order the points gained and clinch them in the understanding and memory.

Questioning is an important feature. The teacher's questions should never be so framed as to suggest the answers, but to lead from the previous to the succeeding step. Do not ask questions in rotation, for this practice induces inattention. Ask the question of the entire class, then name some one to answer.

The maxim, "Never tell a pupil what he can find out for himself," should be used with discretion. Be sure that the point is one which the pupil's preparation makes it possible for him to find out for himself. The principle of eliciting the pupil's information by natural development is sound, but nothing can be developed which has no basis in his mind. Avoid the complaint sometimes heard: "The teacher doesn't explain to me." Devote a part of the recitation period to an examination of the lesson to follow. This gives you certainty that the pupil has the power of preparation and relieves you of the annoyance of frequent questions from studying classes.

Strive to avoid both extremes of wasting time in repetition of what is already clear and well learned, and of placing before the class work too far in advance of their present knowledge.

Remember that to succeed in interesting children the teacher's own interest must be genuine and enthusiastic.

Among the good works now published are:

McMurry's General Method, and McMurry's Method  
of the Recitation. P. S. P. C. (The illustrative  
lessons in these books are very helpful.)

DeGarmo's Essentials in Method. D. C. H.

Roark's Method in Education. A. B. C.

**SEAT WORK AND BUSY WORK.**

The most injurious habit in the school room is that of idleness. The teacher who permits a child to sit in idleness is doing a positive injury, in that the pupil is acquiring a habit which has seriously hampered many a person throughout life.

When it is remembered that from one-half to five-sixths of the school day is spent outside of the recitation, the importance of carefully arranged work for study periods will be realized. The habit of independent personal effort, of real study, is becoming fixed. The teacher is here given the opportunity to show her power of resource. She should provide sufficient material to vary the work, should have a definite plan for each period, and should economize time and strength by systematic methods of distributing and assigning material and work. All busy work should aim to develop and prepare the pupil for something which is to be measured later. Busy work which simply occupies time marks the weak teacher. The child should be held accountable for results and should feel assured that his work will be inspected. Even though the inspection should be sometimes hastily given, the child's effort must not remain unnoticed.

**SOME SUGGESTIVE PLANS FOR SEAT WORK IN PRIMARY GRADES.**

Prepare cards with sentences containing blanks to be filled with words.

Cards of questions to which pupils can write answers.

Cards of ten or more arithmetical exercises to be worked out.

Cards containing outline maps, which pupils in copying will fill with geographical features.

Cards containing geometrical figures in different colors and groupings; pupils supplied with envelopes containing similar forms cut from colored paper, the same to be similarly and differently grouped.

Cards containing each one word, from which arrange sentences according to copies on the board.

Cards containing words in print, to be arranged to correspond with words in script on the board.

Cards containing pictures of common objects; pupils to write names of objects.

Have pupils cut paper or make drawings to illustrate objects they have seen, stories they have heard, parts of circles or other geometrical figures—thus developing knowledge of forms and of fractional units, or in any manner to develop power of expression of ideas, original or otherwise. Pupils to write account of incidents falling under personal observation.

Catalogues of school supply houses (M. B. or A. F.) will suggest many others which may be easily improvised or purchased at a nominal cost. It is surprising how much can be procured for so little.

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#### CARE AND DECORATION OF SCHOOL ROOM.

Half a pupil's waking hours are spent in the school room. Let that room be cheerful, neat, attractive, and full of the atmosphere of a good home. Inspiration for higher things in many cases come only from the school room and during school time. In pity for the innocent, as a protection to the pure and chaste, as a means to character building, let the influence of the school room be uplifting and educative in the true sense.

Keep your own desk and belongings neatly and tastefully arranged, and require the pupils to follow your example. Let the decorations be few in number, inexpensive as to material, but artistic as to arrangement. Despise not the day of small things, and scorn not the value of the little touches, which count more in the education of the child than some of the things of "larger importance." All this counts much as a preventive of occasion for discipline.

Clean windows, clean floors, a polished stove, and flowers on the window sill, will probably come only from the teacher's industry and enthusiastic interest, but will result in a saving of worry and energy, which will more than compensate therefor. Children are far less likely to mar beautiful things, when they have been aroused to an interest in having things beautiful about them.

Teachers who accomplish such things are always sought for higher positions.

In this day of better things in school work abundant suggestive material is not lacking to those who wish for it. The State Superintendent recently issued a monograph on Art Decoration in the School, prepared by Librarian Daniels of our own State Normal School. A suggestive list of school pictures is appended:

### SUGGESTIVE LIST OF PICTURES FOR SCHOOLS.

#### KINDERGARTEN AND PRIMARY GRADES.

Madonna of the Chair, <i>Raphael.</i>	Shepherdess Knitting, <i>Millet.</i>
Holy Night, <i>Correggio.</i>	Caritas, <i>Thayer</i>
Rest in Flight, <i>Knaus.</i>	Member of the Humane Society,
Children of the Shell, <i>Murillo.</i>	<i>Landseer.</i>
Mother and Child, <i>Brush.</i>	The Connoisseurs, <i>Landseer.</i>
Baby Stuart, <i>Van Dyck</i>	The Blacksmith, <i>Frere.</i>
Age of Innocence, <i>Reynolds.</i>	Escaped Cow, <i>Dupre.</i>
Feeding Her Birds, <i>Millet.</i>	Milan Cathedral.
By the Riverside, <i>Lerolle</i>	Leaning Tower, <i>Pisa.</i>
Little Rose, <i>Whistler.</i>	

## INTERMEDIATE GRADES.

Sistine Madonna, Detail, <i>Raphael</i> .	The Gleaners, <i>Millet</i> .
Madonna and Child, <i>Dagnan-Bouveret</i> .	At the Watering Trough, <i>Dagnan-Bouveret</i> .
Virgin, Infant Jesus, and St. John, <i>Bouguereau</i> .	Automedon, <i>Regnault</i> .
Children of Charles I., <i>Van Dyck</i> .	Horse Fair, <i>Bonheur</i> .
Penelope Boothby, <i>Reynolds</i> .	Aurora, <i>Guido Reni</i> .
Shepherdess, <i>Lerolle</i> .	Kabyl, <i>Shreyer</i> .
Christmas Chimes, <i>Blashfield</i> .	Pilgrims Going to Church, <i>Boughton</i> .
Brother and Sister, <i>Thayer</i> .	Paysage, <i>Corot</i> .
	St. Marks.
	Notre Dame.

## GRAMMAR GRADES.

Virgin, Infant Jesus, and St. John, <i>Botticelli</i> .	Dance of the Nymphs, <i>Corot</i> .
Madonna of the Shop, <i>Dagnan-Bouveret</i> .	Golden Stair, <i>Burne-Jones</i> .
Joan of Arc, <i>Bastien Lepage</i> .	Reading Homer, <i>Alma Tadema</i> .
Queen Louise, <i>Richter</i> .	Portrait of Rubens, <i>Rubens</i> .
Sir Galahad, <i>Watts</i> .	Washington, <i>Stuart</i> .
The Haymaker, <i>Adan</i> .	Capitol at Washington.
The Sower, <i>Millet</i> .	Doges' Palace.
The Water Carrier, <i>Millet</i> .	Amiens Cathedral.
	Westminster Abbey.

## HIGH SCHOOL GRADES.

Sistine Madonna, <i>Raphael</i> .	Approach to Venice, <i>Turner</i> .
Virgin Enthroned, <i>Thayer</i> .	Ulysses Deriding Polyphemus, <i>Turner</i> .
Angels, <i>Forli</i> .	Vintage Festival, <i>Alma Tadema</i> .
St. Catherine, <i>Raphael</i> .	Appian Way, <i>Boulanger</i> .
St. Michael and Satan, <i>Guido Reni</i> .	Castle of St. Angelo.
St. Michael and Satan, <i>Raphael</i> .	Acropolis, Pyramid and Sphinx.
Frieze of the Prophets, <i>Sargent</i> .	Arch of Titus, Cologne Cathedral.
Sibyls, <i>Michel Angelo</i> .	Moses, <i>Michel Angelo</i> .
Circe, <i>Burne-Jones</i> .	—From Burrage and Bailey's "School Sanitation and Decoration" (D. C. Heath & Co.).
Portrait of His Mother, <i>Whistler</i> .	
Elizabeth Bas, <i>Rembrandt</i> .	
Diana's Bath, <i>Corot</i> .	

The Perry pictures (Malden, Mass.), and those of Geo. P. Brown (Beverley, Mass.), are now published at one cent each, large ones five cents each, and each teacher can certainly afford a few of these artistic gems. The Educational Publishing Co., Boston and Denver, and A. Flanagan, Chicago, have each a fine line of this class of inexpensive art decorations.

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### OPENING EXERCISES.

Attractive, interesting and instructive opening exercises should be characteristic. Not only are many of the most useful lessons taught in these exercises, but they serve to bring the child to school on time, thus preventing tardiness. Music in the morning inspires to better work during the day. Lessons in ethics, illustrated by appropriate and wholesome stories from history and mythology, make an excellent opening. Five minutes each morning from an interesting book (to be continued the next morning) is much better than the unplanned, unready aimlessness with which the daily work is sometimes taken up. "Well begun is half-way won."

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### CO-OPERATION OF PARENTS—MOTHERS' MEETINGS.

Visit the homes of your pupils. Know them in their natural setting. If your social relations with parents are pleasant, if you are worth knowing socially, you will gain advocates near the throne. Consult freely with those who have known the children from babyhood, who are interested in their welfare, and who can give you valuable suggestions as means of reaching the inner child. This is not to be done

as one who knows not his business, not as one who seeks to curry favor, but frankly and openly as one who wishes to know all the conditions of his work. Parents appreciate the idea of being co-laborers, and cease to be an antagonizing influence, either secretly or openly.

Many advocate the establishment of "Mothers' Meetings." In many districts such meetings, when properly directed, may be productive of unlimited good. Space will not permit full discussion of this topic, nor extended suggestions as to their management. It is hoped that every teacher will inform herself fully as to this matter. Educational journals and correspondence furnish the most available means for investigation of the subject.

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#### DISCIPLINE AND SCHOOL MANAGEMENT.

If the teacher complies with the suggestions above given, the matter of discipline will cause little worry. A child occupied with useful and beneficial work will seldom cause trouble, and the teacher who keeps her pupils at work and interested is efficient in management.

Every successful teacher is more or less strong along two lines: power to govern and power to instruct. Without skill in the former, the teacher's ability in the latter will avail little. She who has the school under good control, especially if accomplished quietly and unostentatiously, has the greatest opportunity for doing effective work in all lines of instruction and development.

Punishment, when necessary, should be prompt and certain, without any exhibition of anger or strong feeling, and should be final, without subsequent "nagging." It should always be the natural and logical result of the offense, not

arbitrary. Corporal punishment is deprecated, save as a last resort in special cases, and should be administered only after consultation with parents, except in a great emergency demanding immediate action.

Let the pupils feel that their welfare is your interest, and that no disciplinary measures are ever used except as a means to increase the efficiency of the school.

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### PROFESSIONAL READING AND TRAINING.

The importance of a professional library as an essential part of the equipment of a successful teacher can not be over-emphasized. Every teacher should be acquainted with the professional advancement of the day. Some of the best journals and the best books should be owned and read by all. Competition is becoming closer and keener, and the day is near at hand when only those who keep in touch with the professional and progressive spirit of the day will be able to secure and retain good positions.

It should be the ambition of every one who does not possess professional training to attend the State Normal School or the pedagogical department of one of the higher institutions of learning. Plan for it, and work for it, that you may be numbered among those who teach the right thing at the right time and in the right way.

The library of a teacher should be constantly increasing. Four or five good books should be added each year. Those provided in the State Reading Circle Course should be included, together with such books as Halleck's Education of the Central Nervous System (McM.), James' Talks to Teachers (H. H.), Roark's Applied Psychology (A. B. C.), Mann's School Recreations and Amusements (A. B. C.), and many others of recent publication.

The president of the State Normal School and the state superintendent are ever ready to give advice as to the best books for teachers. New books of real value are coming from the press every year. Do not permit yourselves to fall behind.

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### TO BOARDS OF EDUCATION.

In building a rural school house, remember that all ceilings should be at least twelve feet high, that the windows should be so placed as to light the room without cross lights, and that the teacher's desk should stand at the end opposite the entrance. Have separate cloak rooms for the girls and the boys.

Secure a good hard pine floor. It is the cheapest in the end. Provide for good light and ventilation. Have a cold air conductor opening underneath the stove, and ventilators for carrying off the impure air near the ceiling and close to the chimney. Provide a shield of zinc for protection of children sitting near stove.

Provide an abundance of good blackboard surface. Place it not to exceed twenty-four inches from the floor, that the little ones may reach it easily. Modern teaching demands the use of the blackboard, and the children should be given every possible advantage.

Do not waste money on the purchase of a lot of expensive and unnecessary apparatus. The four most important things for every school room are Webster's International Dictionary, a set of wall maps, a good reading chart and an encyclopedia. Give the teacher every help possible, consistent with your financial ability. It is the children who will receive the benefit.

Discourage the teaching of advanced subjects at the expense of the primary classes. The children of the primary and grammar grades are entitled to first consideration. If time permits and the demand exists, high school branches may be taught.

It should be the care of the board, as well as of the teacher, to see that proper sanitary provisions for the health and physical welfare of the children are made. The location of the school building in the midst of healthful surroundings and on suitably drained grounds; sufficient play ground for the school; pure water supply; proper disinfection of the outbuildings and premises; care that refuse and filth do not accumulate about the school property, that animal or vegetable matter is not permitted to decay under or about the building, and that suitable provisions for the cleanliness of pupils are made; all these things should be a matter of personal attention by the members of the school board, and in its official capacity the board should insist on attention to all of them. The recent exhaustive investigations by scientists, and the remarkable discoveries being made and published to the world, render it practically impossible for us to be ignorantly careless of the health of the children in our schools. When a little care and expenditure will provide healthful surroundings, it is almost criminal to permit unsanitary conditions.

### HIGH SCHOOL OUTLINE.

In arranging for high school work, two courses may be offered—one for students who wish to enter the university, and one for those who can hope to go no further than the high school.

The following outlines contemplate that the student may elect certain studies offered in addition to those required of all, and may thereby equip himself along either line:

*English*—Grammar, word analysis, rhetoric, English and American literature, and the reading outlined in the requirements of the New England Association of Colleges. Time required equivalent to about four hours per week for three years. Especial emphasis is laid upon the importance of thorough work in the English.

*Mathematics*—Algebra, through quadratics; plane geometry; solid geometry; and a thorough review of arithmetic, with especial attention to its commercial or business aspects. Time required, about five hours a week for two and one-half years.

*History*—United States history and civil government, English history, Greek and Roman history, and general history. Time required equivalent to five hours per week for two years.

*Latin*—Latin lessons with grammar; Cæsar, four books; Cicero, six orations; Virgil's Aenid, six books; prose composition, equivalent to one hour per week for two years. Time required equivalent to about four hours per week for four years.

*Modern Languages*—German, French or Spanish, one year. (German preferred.)

*Sciences*—Physics, one year; chemistry, one year; or biology, one year. Physical geography and physiology, each one-half year. Time required in science equivalent to five hours per week for three years.

*Drawing*—Free hand and mechanical, one hour per week throughout course.

## SUGGESTIVE TABULATION OF HIGH SCHOOL WORK.

YEAR.	ENGLISH.	MATHEMATICS.	HISTORY.	SCIENCE.	LANGUAGE.
First.	Grammar reviewed. Word analysis. Rhetoric.	Algebra.	United States History.  Civics.	Physiology.  Physical Geography.	Latin Reader and Grammar.
Second.	Rhetoric and Composition.	Algebra. Plane Geometry.	General History.	Physics.	Cæsar and Prose Composition.
Third.	American Literature and Reading of Classics.	Plane and Solid Geometry.	Greek, Roman and English History.	Chemistry.	Cicero and Prose Composition.
Fourth.	English Literature and Reading of Classics.	Commercial Arithmetic and Algebra reviewed.	Reviews.	Biology.	Virgil.

The above is based on the idea of four years' work. Three years would necessitate the elimination of such portion of the work as might be demanded by local needs.

German or other foreign language may be substituted for two years of the Latin, if desired.

## APPENDIX.

## LIBRARY LIST.

The following list comprises one hundred of the best books for young people, and is so arranged that by taking them in order from the first a suitable library may be secured, whatever the financial ability of the school district. A library of 12, 25, 50, 75 or 100 books may be selected, as means will permit.

The retail prices are given, from which discounts may generally be secured on orders for a number of books at one time.

Nearly one-half of the expressage may be saved by ordering books shipped by the special prepaid book rates allowed by nearly all express companies:

1. Uncle Tom's Cabin; H. M. & Co.....	\$ .45
2. Black Beauty—Anna Sewall; T. Y. C.....	.40
3. Andersen's Fairy Tales; H. M. & Co.....	.32
4. Longfellow's Poems; H. M. & Co.....	1.50
5. Little Women—L. M. Alcott; R. B.....	1.50
6. Tanglewood Tales—Hawthorne; H. M. & Co.....	.40
7. First Jungle Book—Kipling; A. C. Mc.....	1.50
8. Boys of '76—C. C. Coffin; H.....	3.00
9. Robinson Crusoe—De Foe; G. & Co.....	.35
10. Life of Lincoln—Noah Brooks; A. C. Mc.....	1.50
11. Zig-Zag Journeys in Europe—Butterworth; E. & L.....	1.50
12. A Man Without a Country—Hale; R. B.....	.30
13. Ivanhoe—Scott; B. S. Co.....	50c up
14. Pilgrim's Progress—Bunyan; A. C. Mc.....	20c up
15. David Copperfield—Dickens; B. S. Co.....	50c up
16. Seven Little Sisters—Jane Andrews; G. & Co.....	.50
17. Hans Brinker and the Silver Skates—Dodge; C. S.....	1.50

18.	Boys of '61—C. C. Coffin; H.....	3.00
19.	By Right of Conquest—Henty; A. C. Mc.....	.30
20.	The American Revolution—Fiske; H. M. & Co.; 2 vols.....	4.00
21.	The Oregon Trail—Parkman; L. B. & Co.....	.75
	Or Dickens' Child's History of England; H. M. & Co.....	1.00
22.	Whittier's Poems of Child Life; A. C. Mc.....	2.00
23.	The Birds' Christmas Carol—Wiggin; H. M. & Co.....	.40
24.	Little Folks in Feathers and Fur—Olive T. Miller; E. P. D...	1.50
25.	The Sketch Book—Irving; G. B. P.....	1.00
26.	Tom Brown's School Days—Hughes; G. & Co.....	.50
27.	Macaulay's Essays; A. C. Mc; volume.....	1.50
28.	Little Lord Fauntleroy—Burnett; C. S.....	2.00
29.	Little Men—Alcott; R. B.....	1.50
30.	Second Jungle Book—Kipling; A. C. Mc.....	1.50
31.	Greene's Short History of the English People; H.....	1.20
32.	With Wolfe in Canada—Henty; A. C. Mc.....	.40
33.	Winning of the West—Roosevelt; 4 volumes; A. C. Mc.....	10.00
34.	Kingsley's Greek Heroes; G. & Co.....	.35
35.	Boy Travelers in China and Japan—Knox; H.....	2.36
36.	Alice in Wonderland—Carroll; McM.....	1.00
37.	Birds and Bees, Sharp Eyes and Other Papers—Burroughs; H. M. & Co.....	.40
38.	Beautiful Joe; A. B. P. Co.....	.30
39.	The Spy—Cooper; A. C. Mc.....	40c or .75
40.	Zig-Zag Journeys in the Orient—Butterworth; E. & L.....	1.50
41.	Rab and His Friends—Brown; H. M. & Co.....	.25
42.	Building of the Nation—C. C. Coffin; H.....	3.00
43.	Lorna Doone—Blackmore; Antique Library Edition; A. C. Mc.	.75
44.	Nelly's Silver Mine—Jackson; R. B.....	1.25
45.	The Prince and the Pauper—Mark Twain; C. L. W.....	3.00
46.	History of the United States—Higginson; A. C. Mc.....	2.00
47.	Last Days of Pompeii—Bulwer; H.....	.25
48.	The Lady of the Lake—Scott; G. & Co.....	.35
49.	Hero Tales from American History—Cabot & Lodge; A. C. Mc.	1.50
50.	Fables and Folk Stories—Scudder; H. M. & Co.....	.40
51.	Old-Fashioned Girl—Alcott; R. B.....	1.50
52.	Story of a Bad Boy—Aldrich; A. C. Mc.....	1.25
53.	Grandfather's Chair—Hawthorne; H. M. & Co.....	.40
54.	Montcalm and Wolfe—Parkman; L. B. & Co.....	1.50
55.	Bryant's Household Collection of Poetry; A. C. Mc.....	5.00
56.	Ben Hur—Wallace; H.....	1.50
57.	Girls Who Became Famous—Sarah K. Bolton; T. Y. C.....	1.50
58.	Boys Who Became Famous—Sarah K. Bolton; T. Y. C.....	1.50

59.	Children of the Cold—Schwatka; C. & Co.....	1.25
60.	Under the Equator—du Chaillu; H.....	1.00
61.	Historic Boys—Brooks; L. P. Co.....	1.50
62.	Historic Girls—Brooks; L. P. Co.....	1.50
63.	Henry Esmond—Thackeray; B. S. Co.....	.50c up
64.	The Mill on the Floss—Geo. Eliot; H.....	.75
65.	The Adventures of a Brownie—Craik; H.....	.90
66.	The Hoosier School Boy; C. S.....	.60
67.	Three Vassar Girls Abroad—Champney; E. & L.....	1.50
68.	Tom Sawyer—Mark Twain; C. L. W.....	1.75
69.	Huckleberry Finn—Mark Twain; C. L. W.....	1.75
70.	John Halifax, Gentleman—Craik; A. C. Mc.....	.20c up
71.	Water Babies—Kingsley; G. & Co.....	.35
72.	The Dog of Flanders—Ouida; A. C. Mc.....	.75
73.	Boys' King Arthur—Lanier; A. C. Mc.....	2.00
74.	Drake, the Sea King of Devon; A. C. Mc.....	.75
75.	Magellan on His First Voyage; A. C. Mc.....	.75
76.	Raleigh; A. C. Mc.....	.75
77.	Vasco da Gama; A. C. Mc.....	.75
78.	Scottish Chiefs; A. C. Mc.....	.40
79.	The Boy of the First Empire—Napoleon; A. C. Mc.....	1.50
80.	La Salle and the Discovery of the Great West—Parkman; A. C. McM.....	2.00
81.	Old Curiosity Shop—Dickens; different publishers.....	.50c up
82.	Ten Boys on the Road—Andrews; G. & Co.....	.50
83.	Under the Lilacs—Alcott; R. B.....	1.50
84.	Boy Travelers in South America—Knox; H.....	2.36
85.	Donald and Dorothy—Dodge; B. S. Co.....	1.13
86.	Ramona—H. H. Jackson; R. B.....	1.12
87.	Lays of Ancient Rome—Macaulay; H. M. & Co.....	.40
88.	Arabian Nights—Young Folks Classics; A. C. Mc.....	.40
89.	Tales of a Grandfather—Scott; G. & Co.....	.50
90.	The Talisman—Scott; G. & Co.....	.50
91.	Captain January—Richards; A. C. Mc.....	.50
92.	King of the Golden River—Ruskin; G. & Co.....	.25
93.	Stories of Great Americans for Little Americans; A. B. C.....	.40
94.	Last of the Mohicans—Cooper; A. C. Mc.....	.40
95.	Under Drake's Flag—Henty; A. C. Mc.....	.30
96.	Legends of the Red Children—Pratt; W.....	.30
97.	Cudjo's Cave—J. T. Trowbridge; A. C. Mc.....	1.50
98.	History of Our Own Times—McCarthy; A. C. Mc.....	1.50
99.	The Prisoner of Zenda—Anthony Hope; A. C. Mc.....	1.50
100.	Five Little Peppers Grown-up; L. P. Co.....	.25c up

## TABLE OF ABBREVIATIONS.

H. M. & Co.	Houghton, Mifflin and Co., Boston
McM.	MacMillan and Co., New York
R. & McN.	Rand and McNally, Chicago
A. B. C.	American Book Co., Chicago
G. & Co.	Ginn & Co., Chicago—Denver
E. P. Co.	Educational Publishing Co., Boston—Denver
D. C. H.	D. C. Heath and Co., Boston
B. S. Co.	Book Supply Co. (A. Flanagan), Chicago
M. & M.	Maynard, Merrill and Co., Chicago
U. P. Co.	University Publishing Co., Chicago
S. B. & Co.	Silver, Burdett and Co., Chicago
E. O. V.	E. O. Vaile, Chicago
W. R. & Co.	Whitaker, Ray and Co., San Francisco
W.	The Werner Co., Chicago
L. & S.	Lee and Shepard, Chicago
P. S. P. Co.	Public School Publishing Co., Bloomington, Ill.
M. B.	Milton Bradley (Kindergarten), Springfield, Mass.
A. C. Mc.	A. C. McClurg and Co., Chicago
D. F. & Co.	DeWolfe, Fisk and Co., Boston
L.	J. B. Lippincott, Philadelphia
H.	Harper and Bros., New York
P. & P.	Potter and Palmer, New York
D. A.	D. Appleton and Co., New York
C. S.	Chas. Scribner's Sons, New York
A. F.	A. Flanagan, Chicago
T. Y. C.	T. Y. Crowell and Co., Chicago
R. B.	Roberts Bros., Boston
E. & L.	Estes and Lauriat, Boston
L. B. & Co.	Little, Brown and Co., Boston
E. P. D.	E. P. Dutton and Co.
G. B. P.	G. B. Putnam Sons, New York
A. B. P. Co.	American Baptist Publication Co., Philadelphia
C. L. W.	Chas. L. Webster and Co., New York
C. & Co.	Cowell and Co., New York
L. P. Co.	Lothrop Publishing Co., Boston

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## INTRODUCTION TO THE COURSE.

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1. The county superintendent should provide every teacher under his supervision with a copy of the Course, and should insist also upon an intelligent compliance with its requirements. He should prepare all examinations for promotion, gauging them by the contents of the Course, and making them uniform throughout the county. He should also see that pupils are not excused from particular subjects without consultation with their parents, nor without the formal permission of the Board, which alone has power under the law to grant such permission.

2. In carrying out the provisions of the Course, the teacher should be careful to preserve intact his own individuality, any slavish adherence being specially detrimental to him and to his pupils. In its right use it is his guide, not his master; and he should be so familiar with its essential provisions that his compliance will be instinctive rather than mechanical, leaving ample room for that vital sense of freedom without which good teaching is impossible.

3. The teacher should keep an accurate record of the work of his pupils, grading carefully and promoting cautiously, being sure that the results of the examination combined with the record of the class work justify promotion; premature promotions are always injurious. Yet, be not over exacting in details; mature pupils may often be wisely advanced even though deficient in minor points. Note the

word "review" as used in the Course. It does not mean set lessons on the previous work of a term, a week or a day; but rather such a continual resurrection and use of the old in developing and presenting the new as will keep all the essentials of the subject fresh and available for future advances.

4. The Course, as offered, is mostly intellectual, only two of the eleven subjects bearing directly upon the physical and the moral natures; these, and more especially the latter, elude cold print; yet, every true teacher knows that intellectual development is barely a third of his whole duty to his pupils. The truth is that the best part of any school course is, like the English Constitution, unwritten,—that part, namely, which through the teacher consciously aims at well rounded men and women fitted for citizenship and life. He who can not read between the lines, he who does not see and heed that a sound mind in a sound body, including health, strength, skill, and high character, is the ideal goal, belongs in another sphere; whatever else he may do well, he can not teach, he must not teach.

## COURSE OF STUDY FOR THE COMMON SCHOOLS OF THE STATE OF COLORADO.

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### MUSIC AND PHYSICAL CULTURE.

It is some times felt by the teacher of the country school that there is no time for music; that the time should be given to something more "practical." Whatever contributes largely to the value of the individual as a member of society is certainly of sufficient practical value to demand and receive recognition. Time should be found for the practice of the art of music, and for the teaching of the rudiments of the science. The fact that some teachers are not "musical" is no excuse; some teachers are not "arithmetical," but they teach arithmetic. Teach music. Valuable suggestive material will be found in the Educational Music Course (Ginn & Co.), the Natural Series of Music Readers (American Book Co.) and other recent publications.

Physical Culture, looking toward the development of bodily powers and good health, should be systematically given. Imperfectly developed bodies can never support sound minds. No education is complete which ignores the importance of physical culture.

Music and simple gymnastic exercises are often effective means of discipline. When the school becomes restless and noisy, a few minutes given to singing, or to vigorous calisthenic exercises, with windows open, will generally restore order and industry. Such intermission is in reality a great time saver.

**WRITING AND DRAWING.**

Drawing is of so great help in developing ideas of form, space, and relation, that it has distinct value in supplementing the work in writing. The power to picture what is seen, whether it be from a copy or an object, means much in the co-ordination of the muscles of the hand and in the development of the power to make the hand and eye work in unison—a power which is essential to a legible writer.

Prang's drawing cards and models, Augsburg's Elementary Drawing Simplified (Educational Pub. Co.), are full of suggestions easily adapted to the ability and experience of teachers untrained in either free-hand or industrial drawing.

Writing is an art which, while it demands a certain amount of uniformity, should ever permit individuality in detail.

**GRADE ONE.**

Use the vertical system. In teaching reading from the blackboard, use the script forms with every superfluous line eliminated. Do not teach the child to print. The transition from the script form of the blackboard to the printed form of the page will cause little trouble, as the child unconsciously recognizes and accepts their identity in value. Do not attempt to confine the beginner to the narrow spaces of ruled paper; let him use the board and crayon freely. Teach form and relation rather than exact proportion.

**GRADE TWO.**

Make the writing incidental to other work, rather than a formal exercise in itself. Strive more for form and movement than for nicety and exactness in detail. Emphasize legibility and neatness.