

# **A Guide to the Teachers Mastery of Texts.**



SIGILLUM UNIVERSITATIS CALIFORNIENSIS  
MDCCCLXVIII

EX LIBRIS

EDUCATION DEPT.



Digitized by the Internet Archive  
in 2008 with funding from  
Microsoft Corporation

A GUIDE TO THE TEACHER'S  
MASTERY OF TEXTS

AND

AIDS IN ELEMENTARY INSTRUCTION

By EDITH C. BUCK, A. M.

*Professor of Elementary Instruction in the Iowa State Normal School  
Cedar Falls, Iowa*

1 9 0 8

MATT PARROTT & SONS CO., WATERLOO, IOWA.



Copyrighted 1906

---

**SECOND EDITION**

Revised and Copyrighted 1908

By Edith C. Buck

EDUCATION DEPT.

## P R E F A C E .

A school text is often the embodiment of thoughts which have been worked out step by step in the class room and have developed gradually. Such has been the history of this book.

The work which was carried on for a year approximately, by means of mimeographed copies provided for each pupil, was first presented in book form in 1906. This edition has been in use for two years and the author feels convinced that if the work is pursued conscientiously and faithfully, the results to the pupil are markedly beneficial.

**To Whom Useful.**—It is believed this text will prove useful to several classes of people :

I. To superintendents and members of book committees of school boards who may wish to examine the merits and demerits of texts under contemplated adoption.

II. To the teacher who has the privilege of selecting the book best adapted to her work.

III. To institute workers who teach Methods or Didactics, because of the lists of questions which may be made the bases of discussions.

IV. To those conducting grade meetings in the public schools.

V. To the progressive teachers who are striving for advancement in their profession.

VI. To those criticising a new publication or the advance sheets of school texts intended for publication.

**Grades Included.**—The plan of the work is to deal with grades from the fourth to the eighth, inclusive. When primary subjects have been touched upon, it is because it is thought the pupil will have a better understanding

of the subject if the foundation upon which it rests is thoroughly understood.

**Chapters.**—No attempt has been made to answer all the questions asked upon any one subject, nor to present a complete treatise upon it, as the volume would be too bulky.

They should be supplemented by references from other texts and best of all by the teacher's own personal experience, since the answers to numberless questions are not contained within the covers of any book.

**Questions.**—In no sense is the list of questions on any one subject intended to be exhaustive. Many of them are such as any teacher who is well equipped for her work is expected to know.

Each teacher will use them as her individuality may dictate.

**Outlines for the Examination of Texts.**—A writer has said, "The intellectual treasures of the past are locked up in books." It behooves, then, the intellectual teacher to unlock these treasure houses and partake of the rich feast provided. The outlines contained herein may serve as the gateway. No outline found in this book was made to cover simply the subjects included in any one text. For example, before the outline on texts for the first, second and third readers was attempted, examination was made of the following series in the foregoing grades: Brumbaugh's Standard Readers, Stepping Stones to Literature, Lights to Literature, Graded Literature Readers, Progressive Course in Reading, The Jones Readers, School Reading by Grades, Heart of Oak Books, and the Heath Readers. The salient points of all these sets were selected and used in making the outline, the less prominent characteristics being excluded.

**Problems.**—The experienced, thoughtful teacher, who cares for her pupils and for advancement in her profession, looks at the subject which she is to present from



every standpoint and strives to weigh carefully all the things she needs to bear in mind to make her presentation as strong as possible. She knows into just what pitfalls the pupil is likely to fall, what difficulties may beset him and what can be done to heighten interest when it seems to be lagging.

It is not assumed that the problems included in the text will present entirely new thoughts to experienced teachers, but it is hoped that they may contain at least some new suggestions. But to the uninitiated, who must gain their knowledge mainly through experience, to such it is hoped these problems may be particularly valuable.

**Acknowledgment Paid.**—Grateful acknowledgment for helpful suggestions is paid to Dr. H. H. Seerley, President of the Iowa State Normal School, to Professor W. H. Bender, Supervisor of Advanced Training, to Professor E. J. Cable and to Miss Alison E. Aitchison, both of the Department of Physiography and Geography; to Professor H. C. Cummins, of Drawing, Penmanship and Bookkeeping Department, for the questions on Penmanship, and to Miss Frances M. Dickey, of the Musical Department, for the questions on music.

Last, but not least, thanks are due to my father, Professor S. J. Buck, D. D., who for forty years was a teacher in Iowa College.

EDITH C. BUCK.

Cedar Falls, Iowa, September 8, 1908.



## SUGGESTIONS TO TEACHERS.

**Chapters and Questions.**—In discussing the different subjects contained in this text, it is assumed that the chapters and questions on the subjects considered will be studied preparatory to the recitation. The questions may then be used simply as a basis for discussion, or the pupils may have access to them in class as great care has been exercised to arrange them logically. The original teacher will add to and subtract from according to her own knowledge and the advancement of the pupils. In studying the chapters many supplementary books should be read. In Dr. J. P. Gordy's "A Broader Elementary Education," the educational values of literature, history, English, arithmetic and other subjects are particularly helpful if used in connection with this text.

It is believed that the pupil should not be graduated with a one-sided view of a subject, but that different opinions should be presented for his consideration, as such a course of treatment will inevitably broaden him. The chapter on arithmetic as found in Educational Aims and Values, by Paul H. Hanus of Harvard University, presents quite the opposite view from that of Dr. Gordy, and is well worth careful study. Other pedagogical texts should be consulted as the teacher may dictate. The questions on history are founded on McMurry's Special Method in History and the questions on the five formal steps are based upon the Method of the Recitation by the same author.

**Examination of the Text.**—So far as the author has learned, the system of text examination is pursued in a manner peculiar to this school, in which it originated, and since this is true, perhaps an explanation, even if somewhat lengthy, may not be out of place.

In examining books, plan the work so that each member of the class is provided with the text to be examined and also with notes on the outline.

**Taking Notes.**—Experience has proved that if the text to be examined is assigned to the pupil some time before it is required in recitation, the results will be much more satisfactory, as the one period of study preceding the recitation is not sufficient for the thorough and intensive investigation which some texts need.

Also, the actual drudgery of going into minute details such as some texts demand does not seem so great if the examination extends over several study periods instead of one.

See that the pupil makes as much personal examination in his preparation as possible and that he has written down his observations in a form that is easily accessible during the recitation period. Demand also that these notes contain the exact pages upon which the particular points indicated in the outline may be found, otherwise the work of the recitation will be desultory and will be greatly hindered by an attempt to turn again to a certain place found during the study period. When the pupil has recited as much as he has discovered in the preparation, the teacher may bring out points overlooked, which are peculiar to the book under discussion, and which no one outline, however general it may be, can be expected to comprehend.

**Texts Examined in Detail.**—The plan at the Iowa State Normal is to have the pupil examine one complete set of readers, history texts from the fourth to the eighth grades, two texts each, one elementary and one advanced in English, arithmetic, geography and spelling.

**Review Questions on Texts Examined.**—The experienced teacher knows that it is of inestimable value to be able to turn instantly to a large number of texts for sup-

plementary work, and know exactly where to find what is sought.

For answering review questions found in this book, there is a pedagogical library opening out of the recitation room containing all the books listed at the close of the text, and each pupil is required to examine miscellaneous lists and find the answers to the questions assigned him personally, the number varying according to the size of the class. Should the number be too many, the teacher may supplement the pupil's research from her own notes.

**Order of Answering.**—The class is not required to answer the review questions in regular order, because:

1. Some questions require more research than others.
2. If the class is large, the pupil during one study period may not have access to the books needed to answer his questions fully.
3. There is not time for all the questions to be answered in one recitation.

The following is the plan which has been pursued:

A slip of paper is given each pupil containing the numbers of the questions assigned him. The teacher also records these on a printed list containing all the numbers, arranged in regular order, found in the entire set of questions. As soon as the question is answered, it is crossed from the teacher's record and serves to indicate when the lesson is completed and also aids the pupil who is unfortunate enough to lose the numbers assigned him.

Since a good deal of time is consumed in writing answers to all these review questions in class, the plan has been adopted of writing only the initials standing for the different texts, the teacher indicating by black-board or chart beforehand what shall be used.

Unless the text is to be retained permanently the pupil should record in his note-book the word for which the abbreviation stands. Each pupil brings the result of his

research to class and as report is made under the teacher's guidance always (in case such report may not be correct even though the pupil has exercised his best judgment) notes are taken and when the report is completed each member of the class has the entire list of review questions answered in his note-book, and has at his command texts helpful in many subjects when he enters the teaching field.

It is believed that if thorough work is done in this examination review that the teacher will be equipped in just this essentially needful direction.

**How Questions Should be Answered.**—The notes which the pupil takes upon the different texts are designed to aid him in his future work as a teacher, therefore do not allow him to answer questions found in the outline simply by “yes” or “no.” If this is permitted, unless the outline is at hand the notes will be practically valueless. If the pupil is pursuing a course of study there is a possibility that the notes may not be consulted for some time to come, and “yes” or “no” will mean but little to him. Let the pupil select the particular word or phrase that most accurately describes the text under consideration and then the notes will prove of value for future reference.

## I N T R O D U C T I O N .

The planning of work in elementary schools so as to secure economy of time and effort and also successful administration is one of the greater problems in modern educational organization. The mastery of technique that the teacher possesses has much to do with the outcome of the endeavors that are made. Technique is acquired by investigation, study and application until the habit the teacher desires to attain is developed. To meet these needs it becomes essential to train the power of initiative of the manager and the instructor in all particulars that are essential to progress and improvement. Without this the personal characteristics that are absolutely essential to a teacher's capability may be marred by futile or extravagant endeavor and by reckless ignorance, thus depriving the children to be taught and to be trained of their rightful inheritance to the qualifications demanded by this age of education and enlightenment.

These lessons undertake the task of training the judgment and the comprehension thru definite exercises because it is recognized that thru the judgment being made serviceable and effective originality is born and initiative becomes a possibility. Teachers, before all other persons, need to train themselves to think definitely, accurately and wisely because they should acquire the capability of refraining from expression of opinion or of assuming to teach the truth until they have fully investigated and have thought out the problem involved to the end. Their occupation compels them to attain the power of recognizing readily causes and results in order that they may see clearly the way in which these are related or united and thus discern the proper steps of instructing others.

By so doing, time of teacher and pupils is saved, strength and energy is preserved and at the same time effort and opportunity are actually enlarged. The adoption of such a system of investigating the purpose, the methods of interpretation and the plans of school work is highly important to the improving teacher because such an application is salutary as an act and constructiv of power and efficiency as a result. For this object, the author applies systematic method to the branches to be taught in the elementary school, endeavoring thereby to prepare the student to better solve the daily problems that commonly confront the teacher, believing that anyone who does this work thoroly and successfully will develop nativ power to solve other difficult and unexpected problems as they may arise in experience. It is not claimed that there is but one good way to do these things and that the full mastery of this special way will give the greatest success, but it is claimed that the possession of the details of one excellent method of doing school work prepares a teacher to originate other ways thru the development of independent judgment and the mastery of skill in initiativ.

The author of these pages knows from experience the problems involved and has given much time and study to the working out of these plans. Knowing the public schools from the standpoints of pupil and teacher, from the association with students preparing to teach and from the vision that is given by student work in secondary, collegiate and professional education, the author has, therefore, the competency to speak with authority concerning these phases of elementary instruction and this contribution to educational literature deserves a cordial and enthusiastic reception.

HOMER H. SEERLEY,  
President Iowa State Normal School.



## CONTENTS.

---

Preface.	
Suggestions to Teachers.	
Introduction.	

### Part I. Reading and Educational Value of Text Examination.

I. Reading .....	17
II. Questions on Reading.....	25
III. Suggestions for the Study of Literary Selections .....	30
IV. Educational Value of Text Examination.....	32
V. Outline for the Study of Texts of First, Second and Third Readers.....	34
VI. Problems Which the First Grade Teacher has to Meet in Teaching Reading.....	41
Problems That Confront the Second Grade Teacher in Reading.....	42
Problems Before the Teacher of the Third Reader .....	43
VII. Outline for the Study of Reading Texts from the Fourth Grade and Upwards.....	46
VIII. Problems Before the Teacher of the Fourth Reader .....	55
Problems Before the Teacher of the Fifth Reader .....	57
IX. Review Questions on the Texts of Readers Examined .....	58

### Part II.—English.

X. English .....	65
XI. Questions on English.....	75
XII. Outline for the Study of Texts in English....	79
XIII. Review Questions on English Texts Examined	87
XIV. Problems That Confront the Teacher of English .....	91

### Part III.—Arithmetic.

XV.	Arithmetic .....	95
XVI.	Questions on Number and Arithmetic.....	114
XVII.	Outline for the Study of Texts in Arithmetic .....	119
XVIII.	Review Questions on the Texts of Arithmetics Examined .....	128
XIX.	Problems Which Confront the Teacher in Teaching Arithmetic .....	133

### Part IV.—Geography.

XX.	Geography .....	137
XXI.	Questions on Geography.....	159
XXII.	Outline for the Study of Geographical Texts .....	165
XXIII.	Review Questions on Geographical Texts Examined .....	171
XXIV.	Problems Which Confront the Teacher of Geography .....	176

### Part V.—History.

XXV.	Questions on McMurry's Special Method in History .....	179
XXVI.	Outline for the Study of History Texts in the Grades .....	186
XXVII.	Review Questions on History Texts Examined .....	195
XXVIII.	Problems Which Confront the Teacher of History in the Grades .....	198

### Part VI.—Spelling.

XXIX.	Spelling .....	203
XXX.	Questions on Spelling.....	216
XXXI.	Outline for the Study of Texts in Spelling.	220
XXXII.	Problems Which Confront the Teacher of Spelling .....	225

**Part VII.—Miscellaneous.**

XXXIII.	Questions on Music . . . . .	227
XXXIV.	Questions on Penmanship . . . . .	232
XXXV.	Questions on Manual Training . . . . .	237
XXXVI.	Questions on the Five Formal Steps . . . . .	242
XXXVII.	The Hectograph . . . . .	246
XXXVIII.	Opening Exercises . . . . .	248
XXXIX.	Lists of Texts to be Examined . . . . .	259



# PART I. READING AND EDUCATIONAL VALUE OF TEXT EXAMINATION

---

## CHAPTER I.

### READING.

**Importance of Reading.**—Reading is of vital importance to the child because he must read intelligently in order to understand the various texts he will have to study.

**Value of Reading.**—I. It is one of the earliest subjects to be studied by the average child, and the one which perhaps beyond all others is continued throughout life. II. Broad culture and wide information are gained by means of it. III. The man who is well read may become highly intelligent even if he has been deprived of school advantages. IV. One becomes acquainted with those who have penned masterly thoughts in all ages.

**The Natural Process.**—The natural process by which the child learns to read is first, the object; second, the concept of the object; third, the name; fourth, the spoken word; and fifth, the written word.

**Systems of Teaching Reading.**—Some of the systems by which the child learns to read are the Eclectic, the Sentence, the Word and Sentence combined, the Ward Rational, the Aldine, and the Action system. Many others might be mentioned, but they are, as a rule, modifications of these.

**Board Work.**—A sufficient amount of board work, which may consist of sentences drawn from the child by skilful questioning, or those of the teacher's own construction, written upon the board to be read by the child, should precede the study of the text. The basis of board work may be those subjects which appeal most to the child's life and come closest to his experience, such as

nature study, natural phenomena, stories of history, fables, myths, art, beginning geography and manual training. If well graded, intelligent board work is continued for four months, or even longer, it forms a fine foundation for the text. Board work may be made preparatory to the text by using such subjects as are included in the text which is to succeed, and by asking questions in such a manner that the child will unconsciously use the words of the text. Script should be used almost exclusively in this work. When it is time to make the transition to the text a few lessons may be given in which print is used and the most difficult words placed upon the board in script and print.

**Transition From Script to Print.**—The ideal way to teach the child to read is when a subject has been finished by means of board work to arrange these same sentences logically, have them printed by means of the hectograph, mimeograph, typewriter, printing press, or cheapest of all, by hand, and placed in the child's hands to read. In many progressive schools, the printing press is owned by the board, and is used entirely to further the work of the school. There will be given a life and an interest to the recitation that cannot be obtained by giving the child the text to read, for these sentences are upon a subject in which he is vitally interested, they were formed by him or by some of his friends, and grew so naturally out of the work of the class that he seizes the connection between the spoken and printed thought as he cannot possibly do when the board work is followed by the book. These sentences may eventually be bound together and thus teacher and pupil form their own text. This aids the child to make the transition readily, and this work is also furthered by seat work with the letters of the alphabet, by seeing the alphabet in large size located per-

manently in a conspicuous place in the room, and by the teaching of phonics.

**Phonics.**—The child should be taught phonics. 1. To enable him to discover new words for himself. 2. To prepare him to use the dictionary eventually. 3. To teach him to articulate distinctly. He should be taught phonics after he has learned from fifty to about two hundred words.

Many valuable suggestions for teaching him phonics may be gained from Mrs. Pollard's Synthetic Manual, and also from the Ward System of teaching reading.

**Word Drills.**—The word drills may be given in connection with the board or reader work, and serve to help the child retain the word.

**Correlation.**—Language, history, nature study, art and geography are some of the subjects with which reading may be correlated to advantage.

**New Words.**—One of the greatest hindrances in reading is the lack of the mastery of words, and much of the teacher's force in the early stages of the work must be put upon the mechanical process of fixing them in the child's mind. He should not be taught isolated lists, but should learn the new words as the need of them arises, since he grasps with greater force that for which he feels a present necessity.

**How to Teach Expression.**—Another hindrance to good reading is lack of expression, and the teacher needs to work diligently to gain this from the child. The child copies in expression his elders with whom he comes in contact, and that copy is often unnatural and artificial. The reading manner which should be cultivated is the animated, conversational one. If the child grasps the thought clearly, as may be ascertained by questioning, and reads with reasonably good expression, that should suffice.

The child taught to read correctly by the word and sentence method has taken a long step towards good expression. Some of the ways in which good expression may be gained are these:

1. In the beginning work, require the child to glance at the sentence quickly and read without looking at the book.

2. Have the lesson reproduced before any reading is attempted in class.

3. Let the child assume a character in a dialogue.

4. Allow him to read to the class a selection outside of the text, which particularly interests him.

5. Let one child read while the others close books, those listening reproducing later. Sentiment is against the poor reader, because those hearing cannot grasp the thought readily.

The teacher should rarely read the text for the child. He may show his ideal of good rendition by selections read at other times than during the reading period. His interpretation at such times should be as faithful and faultless as possible. If he is a poor reader it would be best to read but seldom before the school. An especially capable pupil, who is able to hold the attention of the pupils, may read before the school, as this is an aid to the individual and an incentive to others.

**Faults in Reading.**—**Hesitation** is often due to a lack of the mastery of words or of expression, showing the mechanical process has not been emphasized sufficiently. If the **articulation** is not distinct it may be because phonics was not well taught in the lower grades or because of impediment of speech. Drill may be given upon special sounds or words. Attention may be given to phonics in connection with the spelling lesson; or texts, arranged especially for teaching phonics to advanced pupils, may



be studied. **The high-strained tone of voice** often results from embarrassment, or from imitating artificial copies.

The child should be taught that reading means reproducing the author's thought in a natural manner. **Drawling** may result from the lack of the mastery of words, and failure to grasp the thought. It is said that the pupil has a mental as well as a physical pace, but perhaps resort to more of the mechanical process may obviate this difficulty.

**Oral Reproduction as a Substitute for Oral Reading.**— Since there may be much listlessness and inattention in the reading recitation, would it be a good plan to substitute a good deal of oral reproduction for oral reading? The child may be pronouncing the words distinctly and be giving fairly good expression while the undercurrent of his thoughts is running in an entirely different direction. If he reads but once, in class, silently, for the first time, a selection he knows he may be required to produce orally, he will concentrate his attention in a manner which brooks no comparison with the attention he bestows upon oral reading. In reproducing, he must necessarily put the thought into his own words, and the effort in this case is vastly greater than the other. Most of the reading which the average child does is for the sake of getting the thought, while the one who reads orally is quite an exception. It would seem that even if an entire substitution is not made it would be a very valuable occasional exercise. If the pupil in studying finds a word he does not know the teacher may help him pronounce it or write it with mark and accent upon the board, erasing it as soon as the pupil has noted, so that the work may be individual.

**Why the Child Will Not Study His Reading Lesson.**— The average child will not spend much time upon his reading lesson because:

1. It doesn't interest him.
2. He is not given something definite to do.
3. He has studied reading ever since he started to school, and there is nothing particularly new.
4. Of over-confidence in his ability to make a fairly creditable recitation in the average class, if he uses his wits well during the class period, without making much previous preparation.
5. Many pupils do not understand what an intensive study of the English language means.
6. When the child has read the selection and grasped the thought he deems that sufficient.
7. He knows that the work of the study period will not help him materially in the recitation.
8. He has heard the book read so many times that all interest is gone.

**The Study Period.**—It is essential to plan with great care the work of the study period. In the lower grades it is necessary to give the child something in the line of written preparation to keep him fully employed at this time. In the upper grades, if the reading recitation is to profit the child, he must be given something definite to do that he will be interested in performing.

**Lessons in the Order of the Text.**—In the lower grades it may be necessary to assign the lessons in order because of gradation, but in the upper grades some subjects may be far more interesting to the pupil at certain times and under existing conditions than at others, so these should be assigned as judgment dictates.

**Periodicals Instead of Readers.**—If the right selections from the best periodicals are judiciously chosen they may prove very interesting to the pupil. The material is fresh, and is what intelligent people are reading and discussing, and great interest may be awakened among the pupils.

**Dramatization.**—After a selection has been read and understood, if the child enjoys it, he may be allowed to dramatize it, thus making far more vivid and real the mind's impression.

**Use of the Dictionary and Encyclopedia.**—The dictionary and encyclopedia may add much interest to the reading lesson. The average child will, perhaps, not use it very intelligently before ten years of age.

**The Reading of Standard Authors.**—The teacher may induce the child to read standard authors:

1. By assigning interesting selections to be read from these authors.
2. By being thoroughly interested in literature herself.
3. By reading just enough at opening exercises to make the pupil eager to read more.

**A Desire for Reading Good Literature.**—One of the finest deeds a teacher can perform for a pupil is to cultivate in him the habit of reading good literature. The teacher may influence the pupil in choosing his library books, or in his home reading. If she has a strong influence over her pupils, the mere mention of a book may make the pupil wish to read it. She may have a reading table containing choice books where pupils may read at intermissions.

**The Literary Atmosphere of a Home.**—The literary atmosphere of a home is so far reaching in its influence that the teacher may well study closely to see how it was created. The current topics of the day are discussed. Geographical and historical references bearing upon them are looked up and read. If a war is in progress, a map is in an easily accessible place, and events are noted from day to day. A book is read and discussed in the family circle, and criticisms by able writers are noted.

**Moral Lessons.**—The pupil prefers to discover the moral lesson for himself rather than have it forced upon him. Ask him his opinion of a character's action and as he approves or condemns he states what he would have done if placed in like circumstances, and thus he forms his standard of morality.

## CHAPTER II.

**QUESTIONS ON READING.**

1. Why is reading of such importance to the pupil?
2. Of what value is it to him?
3. When begin to teach him reading?
4. When cease?
5. What is the natural process by which the child learns to read?
6. What are some of the systems by which he learns to read?
7. How is each of these systems taught?
8. What are good books of reference on the subject of primary reading?
9. What should precede the study of a reading text?
10. What is meant by board work?
11. What may be made its basis?
12. How give a lesson in it?
13. How long should it be continued?
14. Should script or print be used?
15. How may board work be made preparatory to text?
16. How is transition made from board work to text?
17. By what means is script put into print?
18. In what schools is the printing press used?
19. Why is phonics taught?
20. When teach phonics?
21. How teach it?
22. Why are word drills given?
23. How may such drills be given?
24. When should the child begin to use the text?
25. What are the titles of some of the best first readers?
26. With what subjects may reading be correlated?

27. What hinders the child from being a good reader?
28. How should new words be taught?
29. Should isolated lists be taught?
30. How gain expression from the child?
31. Who are the child's copies in expression?
32. What kind of reading manner do you wish to cultivate in him?
33. What degree of expression should be exacted of him?
34. Should he imitate the teacher's reading?
35. If not, how will he gain the teacher's idea of good reading?
36. What should be the quality of the teacher's effort?
37. If the teacher is a poor reader is it best for her to read before the school?
38. Would you allow an especially capable pupil to read before the school?
39. Of what value would it be?
40. What are good selections to read to pupils?
41. What causes the child to hesitate in reading?
42. How overcome the habit of hesitation on pupil's part?
43. If phonics has been neglected in lower grades how may it be taught to advanced pupils?
44. How may distinct articulation be secured?
45. Why should the child articulate distinctly?
46. What attention should be paid to the observance of punctuation marks?
47. What causes the child to read in a high-strained tone of voice?
48. How prevent him from reading in this manner?
49. What makes him read in a sing-song tone?
50. What may be done to prevent such a tone?
51. What causes the child to read in a drawling tone?
52. How break the habit of drawling?

53. What are the advantages of concert recitation in reading?
54. The disadvantages?
55. Should there be oral reproduction as a substitute for oral reading?
56. Which demands more effort from the child?
57. How should new words be taught in this case?
58. Why will not the average pupil spend much time on his study of the reading lesson?
59. What are his difficulties in studying reading?
60. What are his difficulties in reading in 4th, 5th, 6th, 7th, 8th, 9th grades, and the High School?
61. Why is it necessary to plan carefully for the work of the study period?
62. What should the pupil be given for study period in 4th, 5th, 6th, 7th, 8th, 9th, and High School grades?
63. How assign a lesson to different grades?
64. Should lessons be given in order of text book?
65. What subjects are made the bases of readers?
66. Which would be your choice?
67. Should the pupil study thoroughly one reader in a grade or handle many texts?
68. What is your opinion of using periodicals instead of texts?
69. As supplementary to texts?
70. How may newspapers be used, instead of readers?
71. What periodicals would you use?
72. Should newspapers as reading matter be encouraged below fourth grade?
73. Of what degree of difficulty should the supplementary reading be?
74. What are some of the best supplementary books?
75. What is dramatization?

76. What is its value?
77. How often should it be used?
78. What selections may be dramatized successfully?
79. In what grades should the dictionary be used?
80. In what grades the encyclopedia?
81. Should spelling be taught in connection with reading lesson?
82. If so, why?
83. In what grades?
84. What place on the program should the reading recitation occupy?
85. How many periods a day should be devoted to it?
86. How much time should be spent in one recitation of 4th, 5th, 6th, 7th, 8th, 9th and High School grades?
87. How induce the child to read the works of standard authors?
88. How may the habit for good reading in after life be cultivated?
89. What bearing has the literary atmosphere at home, or lack of it, upon the child's power to interpret literature?
90. Who was reared in a literary atmosphere?
91. How was this atmosphere created?
92. How teach the moral lessons to be gained from the selection?
93. What selections are suitable for High School classes?
94. How should a selection in such a grade be presented?
95. What difficulties beset the High School pupil in reading?
96. How may reading reports be kept?
97. What three selections are considered by some to be the finest in the English language?



98. What can the teacher do to influence the child's outside reading?
99. What may be done to provide reading material for children outside of texts?
100. What is meant by the spiral system in reading?
101. Why is reading so difficult a subject to teach?
102. Is it possible to obtain from the pupil in the study of literature the same amount of concentrated effort exacted in a subject like mathematics or language?
103. Would it be possible for him to gain as much mental discipline from literature as from mathematics or the languages?
104. What is the purpose of devices in reading?
105. What are some good devices for teaching reading?

## CHAPTER III.

**SUGGESTIONS FOR THE STUDY OF LITERARY SELECTIONS.**

1. What is the purpose of such study?
  - a. To cultivate in the pupil a taste for the finest in literature.
  - b. To instil in him
    1. Love for the highest and best.
    2. Noble thoughts.
    3. Patriotism.
    4. Courage.
  - c. To aid in cultivating expression.

If the pupil thinks clearly and feels deeply there will be no room for fear or self-consciousness, and expression will become a delight.

2. The selection should be an example of the finest literature and the purest English.

3. Author.

- a. Conditions under which the selection was written.
- b. Most notable works.
- c. Life.
- d. Rank as a writer.

4. If the source of the plot of the selection is available, require the pupil to write upon this subject.

- a. Have the papers read aloud, discussed, and unnecessary parts eliminated.

5. The historical or local setting should be noted.

6. Any striking peculiarities of houses, buildings or gardens should be pointed out.

7. Note the central or main thought running through the selection.

8. Have the selection read and viewed as a whole.

9. Let the obscure phrases, passages and unusual or obsolete forms be found and explained.

Note.—Do not analyze the selection until all life is taken out of it.

10. Require the pupil to write a review of the selection.

11. The pupil may write an analysis of the different characters portrayed.

Note.—Nos. 10 and 11 should be the result of silent, independent study.

12. Have the pupil commit and recite especially beautiful or strong passages.

13. Let there be one recitation in which each pupil reads or recites a selection chosen by himself.

14. If possible, encourage the pupils to dramatize the selection. This should come as the summing up of all experiences.

a. The class may be divided into groups and each group may dramatize.

b. After such action—

1. Good things may be noted.

2. Suggestions made.

3. Criticisms offered.

15. While scenery and costumes add greatly to the interest they are not essential. Leland T. Powers, Bertha Kunz Baker, Katherine Jewell and Katherine Oliver employ neither of them.

16. The child may be prepared to listen intelligently to some Shakespearian play or some entertainment of a high order to be presented in the place by fine actors.

17. A Round Table may be conducted out of school hours and free discussions encouraged.

## CHAPTER IV.

**EDUCATIONAL VALUE OF TEXT EXAMINATION.**

It is believed that the critical examination of a few of the best texts will prove beneficial to the teacher, for the following reasons:

1. It creates a standard by which the teacher is enabled to judge of and compare the superiority and inferiority of texts.

2. A text enters so largely into the innermost intellectual life of the child and determines to such a degree the teacher's success that the examination of texts should render the important task of selecting less difficult.

3. It gives a teacher the power to select personally and to give intelligent aid to those introducing new books to be used as texts or supplementary work.

4. It teaches different views of master minds upon the presentation of subjects and the arrangement of material.

5. By observing the views of different authors and gaining some idea of the wealth of material extant it gives a teacher a far broader scope and prevents narrow-mindedness.

6. The examination of many texts upon the same subject broadens the teacher's method of presenting any one text.

7. It impowers the individual to know just where to find references and supplementary work not included in the text used.

8. If a teacher masters a text thoroughly she will enjoy the book more fully, impart more valuable instruction, and secure better work from the pupil.

9. If the teacher is thoroughly conversant with the author's views of a subject, she will use his material more intelligently.

10. It enables one to select a book best suited to a particular purpose.

11. By examining books according to the laboratory method, merits and demerits are more firmly fixed in the mind than by discussing facts concerning them and memorizing them.

12. It will enable the teacher to determine which texts are too difficult for the pupil.

13. It enables the teacher to see which is the most modern and up to date in its treatment.

14. It brings before the teacher some of the best texts now published.

15. It instructs how to master the problems with which a teacher has to contend.

Because of the value of this work there will be found in this text an outline for the examination of First, Second and Third Readers, for the readers from the Fourth Grade and upwards, for texts in English, for Arithmetics and Geographies, Histories and Spellers. The first four points in the first outline, Cover, Author, Publisher, and Year Published, form the beginning of each succeeding outline, but are not repeated for the sake of brevity.

CHAPTER V.

**OUTLINE FOR THE STUDY OF TEXTS OF FIRST,  
SECOND AND THIRD READERS.**

- I. Cover.**
  - a. Color?
  - b. Design?
    - 1. Artistic?
    - 2. Conventionalized?
  - c. Appropriate?
  - d. Substantially bound?
- II. Author.**
  - a. Name?
  - b. Rank?
- III. Publisher.**
  - a. Name?
  - b. Address?
- IV. Year Published.**
- V. Preface.**
  - a. Number of pages?
  - b. Comparative length?
  - c. Main heads?
  - d. Are they definitely brought out?
  - e. Comprehensive?
  - f. Does it contain reasons why reading is taught?
  - g. Does it state the ends to be accomplished by the book?
  - h. If a set is published, are the contents and purpose of each stated in any one of the series?
  - i. Does it contain acknowledgment of aid?
- VI. Acknowledgment of permission to publish.**
  - a. Where found.
    - 1. Preface?
    - 2. Close of selection?

**VII. Introduction.**

- a. Comparative length?
- b. Acknowledgment of aid?

**VIII. Contents.**

- a. Number of selections.
  1. Prose?
  2. Poetry?
- b. Title of selection included?
- c. Page where found?
- d. Name of author?
- e. Arrangement.
  1. According to page?
  2. According to author's work?
  3. Topical?
- f. Classified?

**IX. Suggestions to teachers.**

- a. Where found?
- b. Helpful?
- c. Sufficient number?

**X. Material of text.**

- a. Which predominates.
  1. Prose—Why?
  2. Poetry—Why?
- b. Selections?
  1. Nature study?
  2. Nature myths?
  3. Natural phenomena?
  4. Scientific?
  5. Legends?
  6. Fables?
  7. Fairy tales?
  8. Classical tales?
  9. Stories from noted authors abridged and adapted?

10. Child stories? i. e., those appealing to the experience and interest of childhood?
11. Dialogues?
12. History?
13. Biography?
14. Literary biography?
15. Translations?
16. Poems?
17. Biblical selections?
18. Selections pertaining to child life in other countries
  - a. "The Chinese Boy?"
  - b. "In Japan?"
  - c. "The Truthful Little Persian?"
19. Folk-lore
  - a. Old Irish?
  - b. Spanish?
  - c. Syrian?
  - d. "Hindu Fairy Tale?"
- c. If material is of a conglomerate nature, what subject predominates?
- d. Product
  1. Of writers of highest rank?
    - a. What is the proportion of classics?
  2. Modern authors ranking well?
- e. Arrangement
  1. Prose and poetry interspersed?
  2. Work of authors grouped?
  3. Kindred subjects grouped?
  4. Are subjects grouped because of the relation of thought?
  5. Logical?
  6. Spiral?



- f. Is it true to the instincts of childhood?
- g. Is book tinged with local coloring?
- h. Material used to fill in space
  - 1. Memory gems
    - a. Poetry?
    - b. Prose?
  - 2. Proverbs?
  - 3. Trite sayings?
    - a. Which of these three predominates?
- i. Author's name at close of selection?
- j. Selections to be memorized
  - a. Number?
  - b. Kinds?
- k. Used as
  - 1. Text?
  - 2. Supplementary work?

**XI. Language exercises.**

- a. Comparative number?
- b. Words for sentence making?
- c. Questions to be answered after the study of the picture?
- d. Copying of a letter and its reply?

**XII. Reviews.**

- a. Comparative number?
- b. How often occur?
- c. Lesson headed, "Review of difficult words?"

**XIII. Sight reading.**

- a. How often found?
- b. New view of an old subject?

**XIV. Phonetic exercises.**

- a. Comparative number?
- b. Phonetic chart?
- c. Phonetic drills?
- d. Sound table?

- e. Where found?
  1. Scattered through book?
  2. At close of text?

**XV. Print.**

- a. Size
  1. Large?
  2. Small?
  3. Clear?
  4. Attractive?
  5. Marked difference in type?

**XVI. Quality of paper.**

- a. Fine?
- b. Medium?
- c. Poor?

**XVII. Script.**

- a. Capitals and small letters?
- b. Lesson with script and print alternating?
- c. To be copied?
- d. Entire lesson in script?  
(To familiarize child with reading writing.)
- e. Social letters printed in script?
- f. Where found.
  1. In front of text?
  2. At close?
  3. Scattered through?

**XVIII. Alphabet.**

- a. Large and small letters
  1. In script?
  2. In print?

**XIX. Arabic notation.**

- a. Where found?

**XX. Definitions.**

- a. Comparative number?
- b. Clear?

- c. Comprehensive?
- d. Of what consist
  - 1. Explanation of words?
  - 2. Resemblances to explanations?

## **XXI. Illustrations.**

- a. List of masterpieces and illustrations?
  - 1. Comparative length?
  - 2. Well paged?
- b. Number?
- c. Quality
  - 1. Fine?
  - 2. Medium?
  - 3. Poor?
- d. Colored?
- e. Educative?
- f. Portraits of authors?
- g. Reproductions of famous masterpieces?
- h. Of noted statuary?
- i. Historical?
- j. Artist mentioned?
- k. Purely decorative without reference to text?
- l. Drawn with few lines for pupil to copy?
- m. Where found
  - 1. On title page?
  - 2. On pages at beginning and close of book usually left blank?
  - 3. At beginning of lesson?
  - 4. Interspersed through the text?
- n. Head pieces
  - 1. Number?
  - 2. Quality?
- o. Tail pieces
  - 1. Number?
  - 2. Quality?

**XXII. Division into lessons.**

- a. Well divided?
- b. Poorly divided?
- c. Practically no division made?

**XXIII. Grading of lessons.**

- a. Well graded?
- b. Poorly graded?
- c. No attempt at gradation?

**XXIV. Word lists.**

- a. Number of pages, if at close of book?
- b. Diacritically marked, accented and separated into syllables?
- c. Silent letters italicized?
- d. Correct pronunciation in parenthesis?
- e. Complete list of words in the reader?
- f. Arranged according to their appearance in lessons?
- g. Guide to pronunciation?
- h. List which every child should be able to spell?
- i. Where found
  1. At close of book?
  2. At beginning and close of selection?

**XXV. Degree of difficulty.**

- a. Sufficiently difficult?
- b. Too difficult?
- c. Not difficult enough?

**XXVI. For what age?**

**XXVII. For what grade?**

**XXVIII. Favorable criticisms?**

**XXIX. Unfavorable criticisms?**

**XXX. Problems before the teacher?**

**XXXI. Psychological aspect?**

## CHAPTER VI.

**PROBLEMS WHICH THE FIRST GRADE TEACHER  
HAS TO MEET IN TEACHING READING.**

1. How to lead the child to interpret language.
2. To appreciate literature.
3. To acquire a taste for it.
4. To acquire an abiding love for it.
5. To stimulate the child's imagination.
6. To consider his interests.
7. To deal with his activities and experiences.
8. To use language that is easy, plain and natural.
9. To teach the child to transpose print into script.
10. To teach word mastery.
11. To teach phonetics.
12. To teach sight analysis.
13. To grade the work carefully.
14. To teach every form and variety of sentence common to the child.
15. To make the illustrations aid in the interpretation of the text.
16. To provide enough seat-work of the right kind to keep the child employed during the study period.
17. To teach expression.
18. To understand child nature.
19. To correct wrong ideas acquired at home.
20. To convert parents to the method taught.
21. To deal with different nationalities.
22. To guide the child's activities carefully.

**PROBLEMS THAT CONFRONT THE SECOND GRADE  
TEACHER IN READING.**

1. How to approach the child through the sympathetic side.
2. To aid him in understanding definitions.
3. To teach him to give a definition of the new word in his own language.
4. To use the new word in a sentence of his own construction.
5. To reproduce the lesson in good English before any reading is done.
6. To write the thought of the lesson in his own words.
7. To write out questions upon paragraphs of the lesson.
8. To answer in writing questions placed upon the board upon paragraphs of the lesson.
9. To transpose poetry into prose.
10. To continue the teaching of phonics in an interesting manner so that the child will be made independent in the discovery of new words.
11. To make word drills interesting.
12. To select the lessons appropriate to the season of the year.
13. To select the lessons that will bear upon subjects of interest that may come into prominence suddenly.
14. To correlate reading with other subjects.
15. To teach the new words of the lesson.
16. To lead the pupil to an ideal of the way in which the lesson should be read by other means than imitation.
17. To suppress the conceit of the pupil who reads so well that the class is taught through his rendition.
18. How much oral reproduction to substitute for oral reading.
19. How to keep the attention of each member of the

class upon a paragraph while the slow pupil is reciting.

### **PROBLEMS BEFORE THE TEACHER OF THE THIRD READER.**

1. How to lessen the mechanical process.
2. To increase culture and information.
3. To be exacting with the pupil with regard to
  - a. Pose of body.
  - b. Articulation.  
Pronunciation of words.
  - c. Proper use of voice—pitch.  
rate.  
volume.  
quality.  
accent.
  - d. The appreciation of the sentiment of the selection.
  - e. Not condoning his mistakes.
4. To provide supplementary reading. Some of the ways in which this may be done are as follows:
  - a. One child read while others listen and reproduce.
  - b. Cut up stories.
  - c. Duplicate by means of the hectograph or mimeograph.If free texts are used:
  - d. Teachers in the same building may exchange books.
  - e. Teachers in different buildings may exchange.
  - f. Pupils may subscribe for a paper after text is completed.
  - g. Paper may be used instead of a text.
  - h. Teacher may write sections of a story upon

the board at a time, the material being covered by a curtain until the recitation period.

- i. Cheap but good classics may be used.
  1. Young Citizen—Mrs. Dr. Eastman.
  2. The Normal Instructor often contains extra leaflets for supplementary reading.
  3. Flanagan's leaflets.
  4. Suggestions for such lessons may be found in the Plan Book by Marion George.
  5. In the Elementary Teacher, published at Chicago University.
5. To be certain that the child gets the thought—
  - a. Have him give the meaning of the sentence or paragraph in his own words.
  - b. Write it in his own words.
  - c. Use synonyms.
  - d. Reproduce the selection orally.
  - e. Put skeleton outline of selection on board, require pupil to complete it.
  - f. Substitute equivalent adjectives for those used in the text.
  - g. Substitute equivalent adverbs.
  - h. Change statements into questions.
  - i. Change questions into statements.
6. To pronounce words correctly.
7. To notice pauses.
8. To recognize the charm of rythm and rhyme.
9. To sympathize with the sentiment of the selection.
10. To cultivate the reading habit in the child.
11. To select from so much that is fine that which will make the child eager to read more.
12. To communicate the enthusiasm for literature to pupils.



13. To make the language work grow out of and correlate with the reading lessons in an interesting manner.
14. To teach about authors in a way that will appeal to pupils of this grade.

## CHAPTER VII.

### OUTLINE FOR THE STUDY OF READING TEXTS FROM THE FOURTH GRADE AND UPWARDS.

#### V. Preface.

- a. Number of pages?
- b. Comparative length?
- c. Main heads?
- d. Are they definitely brought out?
- e. Comprehensive?
- f. Does it contain reasons why reading is taught?
- g. Does it state the ends to be accomplished by the book?
- h. If a set is published, are the contents and purpose of each stated in any one of the series?
- i. Does it contain acknowledgment of aid?
- j. Does it contain names of critics?

#### VI. Acknowledgment of permission to publish.

Where found—

- a. Preface?
- b. Close of selection?

#### VII. Introduction.

- a. Comparative length?
- b. Acknowledgment of aid?
- c. Names of critics?

#### VIII. Contents.

- a. Number of selections—
  1. Prose?
  2. Poetry?
- b. Titles of selections included?
- c. Pages where found?

- d. Names of authors?
  - e. Arrangement
    - 1. According to pages?
    - 2. According to author's work?
    - 3. Topical?
    - 4. Alphabetical?
    - 5. Logical?
    - 6. Varied?
- IX. Article on the reading lessons and its uses.**
- X. List of authors and their selections.**  
Alphabetically arranged?  
Length of list?  
Page indicated?
- XI. Suggestions to teachers.**
- a. Comparative number?
  - b. Sufficient number?
  - c. Helpful?
  - d. Is psychological view of reading presented?
  - e. Where found?
- XII. Material of text.**
- a. Which predominates
    - 1. Prose—why?
    - 2. Poetry—why?
  - b. **Prose selections**
    - 1. Classical?
    - 2. Cutting from a standard work?
    - 3. Translation from a classic of a foreign language?
    - 4. Historical?
    - 5. Oratorical?
    - 6. Biographical?
    - 7. Autobiographical?
    - 8. Philosophical?
    - 9. Didactic?

10. Biblical?
11. Narrative?
12. Descriptive?
13. Scientific?
14. Nature study?
15. Eulogy?
16. Legendary?
17. Expository?
18. Argumentative?
19. Revery?
20. Allegorical?
21. Mythical?
22. Humorous?
23. Essay?
24. Pathetic?
25. Address?

**c. Poetical selections**

1. Dramatic?
2. Sonnet?
3. Biblical?
4. Hymn?
5. Legend?
6. Historical?
7. Philosophical?
8. Patriotic?
9. Elegy?
10. Ode?
11. Ballad?
12. Lyric?
13. Allegory?
14. Dirge?
15. Didactic?
16. Nature study?
17. Narrative?

18. Pathetic?
  19. Temperance?
  20. Ordinary?
- d. If the material is of a conglomerate nature, what subject predominates?
  - e. Product
    1. Of writers of highest rank?
      - a. What is the proportion of classics?
    2. Of modern authors ranking well?
  - f. Arrangement
    1. Prose and poetry interspersed?
    2. Work of authors grouped?
    3. Kindred subjects grouped?
    4. Are these grouped because of relation in thought?
    5. Logical?
  - g. Is it true to the instincts of childhood?
  - h. Sketches of authors' lives
    1. At beginning of selection?
    2. At close of selection?
  - i. Is book tinged with local coloring?
  - j. Prose quotations interpolated in finer print?  
Poetical quotations interpolated in finer print?
  - k. Material used to fill in space
    1. Memory gems
      - Poetry?
      - Prose?
    2. Proverbs?
    3. Trite sayings?
      - a. Which of these three predominates?
    4. Where found?
      - a. Between table of contents and list of authors?

- b. On pages usually left blank at beginning and close of book?
- c. On title page?
- d. At beginning of selection?
- e. At close of selection?
- 1. Author's name at close of selection?

### **XIII. Explanatory notes.**

- A.
  - a. Comparative number?
  - b. Lengthy?
  - c. Clear?
  - d. Confusing?
  - e. In different type?
- B. Consist of what.
  - 1. Attempts to make clearer the material of text by statements called argument?
  - 2. Of long or short dissertations at back of book with page references?
  - 3. References to other selections of a similar nature (allusions)?
  - 4. Title of selection from which cutting is made?
- C. Do they include brief notes of the author's life?
- D. Where found
  - a. At beginning of selection?
  - b. At close of selection?

### **XIV. Foot-notes.**

- a. Translation of a sentence or phrase in foreign language?
- b. Quotation bearing upon subject?
- c. Synonym for obsolete or unusual form?
- d. Definition of same?

### **XV. Definitions.**

- a. Comparative number?
- b. Lengthy?

- c. Concisely worded?
- d. Clear?
- e. Of important words?
- f. Of non-important words?

**XVI. Suggestions to pupils.**

- a. Many? b. Few? c. Helpful? d. Where found?

**XVII. Questions.**

- a. Many? b. Few? c. Testing? d. Provocative of thought? e. Logical sequence?

**XVIII. Key or guide to pronunciation?**

**XIX. Lexicon or pronunciation of new and difficult words.**

- a. Number of pages?
- b. Important?
- c. Non-important?
- d. Difficult?
- e. Obsolete?
- f. Not in general use?
- g. Foreign language?
- h. Diacritically marked?
- i. Definitions in same list?
- j. Authorities for pronunciation?

**XX. Division into lessons.**

- a. Well divided?
- b. Poorly divided?
- c. Practically no division made?

**XXI. Grading of lessons.**

- a. Well graded?
- b. Poorly graded?
- c. No attempt at gradation?

**XXII. Illustrations.**

- a. Number?
- b. List of masterpieces and illustrations?

1. Length?
2. Well paged?
- e. Quality
  1. Fine?
  2. Medium?
  3. Poor?
- d. Educative?
- e. Portraits of authors?
- f. Reproductions of noted pictures?
- g. Illustrations of noted statuary?
- h. Source given?
- i. Purely decorative without reference to text?
- j. Historical?
- k. Two or three grouped?
- l. Where found
  1. On pages at beginning and close of book usually left blank?
  2. At beginning of lesson?
  3. Interspersed through the text?
- m. Head pieces
  1. Number?
  2. Quality?
- n. Tail pieces
  1. Number?
  2. Quality?

**XXIII. Print.**

- a. Size?
  1. Large?
  2. Small?
  3. Marked difference in type?
- b. Clear?
- c. Attractive?

**XXIV. Quality of paper.**

- a. Fine?



- b. Medium?
- c. Poor?

**XXV. Lists of new and difficult words?**

- a. Number of pages, if at close of book?
- b. Diacritically marked, accented and separated into syllables?
- c. Correct pronunciation in italics?
- d. Words and definitions combined?
- e. Notes for study, including lists of words, definitions and explanatory notes or suggestive questions?
- f. Where found
  - 1. At close of book?
  - 2. At beginning of selection?
  - 3. At close?

**XXVI. Index of writers.**

- a. Name?
- b. Date of birth and death?
- c. Titles of selections?
- d. Page whereon found?

**XXVII. Titles of books that should be in the library.****XXVIII. Difficulty.**

- a. Sufficiently difficult?
- b. Too difficult?
- c. Not difficult enough?

**XXIX. Used.**

- a. As text?
- b. As supplementary work?

**XXX. Index.**

- a. Number of pages?
- b. Alphabetically arranged?

**XXXI. For what age?****XXXII. For what grade?**

**XXXIII.** Favorable criticisms?

**XXXIV.** Unfavorable criticisms?

**XXXV.** Problems before the teacher?

**XXXVI.** Psychological aspect of reading?

## CHAPTER VIII.

**PROBLEMS BEFORE THE TEACHER OF THE  
FOURTH READER.**

1. To see that the foundation is well laid, e. g., that the pupil is able to pronounce words.
2. To remedy the foundation if it has not been well laid.
3. To incite the pupil to wish to continue the habit of word mastery.
4. To see that practise does not intensify bad habits.
5. That the pupil does not read indifferently.
6. That he does not read superficially.
7. To lead him to a proper method of study.
8. To touch the fundamental elements in criticizing.
9. To teach the essential facts of rhetoric.
10. To cultivate in the pupil the selective sense, to make him analytic. To invest him with the power of true interpretation.
11. To see that the selection is truly written, that the truth of beauty is one with the beauty of truth.
12. To see if it is correctly written.
13. If it is beautifully written. To appreciate the delicate sensitive touches.
14. To lead the pupil to see that the clearness of truth is emphasized by the beauty of truth; i. e., to appreciate poetry.
15. To see that the pupil now reads for culture and for knowledge.
16. To see that the basis of artistic reading is laid by having the poems committed to memory.
17. That the reading of the pupil is an increasing source of pleasure and profit.

18. To lead the pupil to enjoy the glory of the English language, its stately grandeur and its matchless beauty.
19. To help reveal to him the beauty and strength of the language.
20. To cultivate in him the culture insight.
21. To see that he brings the experiences of his own life to bear upon the experiences portrayed by another. To show the relations of things.
22. To connect facts of life and facts presented in selection.
23. To lead the pupil to find as much of his own experiences as possible in the selections.
24. To see that observation and reflection follow.
25. That the pupil grows into a reflective and moral being.
26. That interest, power to think, and ethical results are attained.
27. That aesthetic results are achieved.
28. To select the stanza imparting the greatest pleasure and the highest degree of beauty.
29. To point out the line or phrase or word that is appropriately or beautifully used.
30. To leave the pupil free to give expression to his own choice.
31. To lead him to give reasons for his choice.
32. To keep him from blindly imitating your reading.
33. To create in him ideals from which to judge.
34. To see that he comprehends the notes for study, whether explanations or suggestions.
35. Slight interest (at least) in the author, as shown by the insertion of several poetical selections.
36. How to so plan the work that the pupil will **study** with any degree of effort the Fourth Reader.

37. To adapt the teaching so as to hold the interest and attention of the three classes of pupils—excellent, medium and poor.

**PROBLEMS BEFORE THE TEACHER OF THE  
FIFTH READER.**

1. To incite the pupil to read widely and thoughtfully.
2. To acquaint him with the scope of our literature.
3. To create proper standards of taste.
4. To create a desire to re-read fine literature.
5. To fully appreciate the old in literature.
6. To aid in judging the present day literary work.
7. To aid him in deriving keen pleasure from a stately selection.
8. To lead him to master literary interpretation.
9. To help him to feel keenly and comprehend vividly the purport of language.
10. To see that reading forms the mind.
11. To train the imagination.
12. To inculcate love of country and the institutions of the people.
13. To see that the pupil thinks closely.
14. What standard treatises to place before him.
15. To contrive a way to make biography interesting.
16. To build character.

CHAPTER IX.

**REVIEW QUESTIONS ON THE TEXTS OF READERS  
EXAMINED.**

1. Which has the most attractive cover?
2. Which the least attractive?
3. Which the longest preface?
4. Which the shortest?
5. Which the most inspiring one?
6. Which the most psychological?
7. Which gives six important features concerning the quality of the literary selections?
8. Which sets forth the predominating characteristic of the contents in four books of the set?
9. Which state the principles of teaching reading?
10. Which in your judgment is best?
11. Which contain acknowledgment of permission to publish?
12. Which contain acknowledgment of aid?
13. Which contain the names of critics?
14. Which has an introduction?
15. Which has a classified table of contents?
16. Which has the best table of contents?
17. Which have suggestions to teachers?
18. In which are the suggestions to teachers especially pedagogical?
19. Which treats of faults teachers should seek to correct in the child?
20. Which has the best suggestions to teachers?
21. Which have suggestions to pupils?
22. In which does prose predominate?
23. In which poetry?

24. In which are prose and poetry interspersed?
25. In which is the work of authors grouped?
26. In which are subjects having the same ethical motive grouped?
27. Which have an index of writers?
28. Which has an index of writers and their works?
29. Which have the author's name in connection with the selection?
30. In which are sketches of the authors' lives found?
31. Which contain authors of the highest rank?
32. Which contain the most classical selections?
33. Which publishes complete selections in order not to encourage scrappy reading?
34. Which is constructed according to the culture epoch theory?
35. Which set seeks to appeal to the interest of the child at his special stage of development?
36. In which are types presented?
37. In which is the language used that of children in conversation?
38. Which contains Mother Goose Rhymes?
39. Which first readers contain script?
40. Which first readers have the lessons numbered?
41. Which texts have material used to fill in space?
42. In which is there printed a suitable selection inside the cover?
43. In which are the memory gems especially fine?
44. Which correlates language lessons with reading?
45. Which correlates geography with reading?
46. Which correlates history with reading?
47. Which contains historical and biographical stories that later will correlate with other studies?
48. Which plans to supplement the text with outside reading on the same topic?

49. Which contains a model for the study of a poetical masterpiece?
50. Which have references to other selections of a similar nature?
51. In which is the material such as to create interest?
52. In which is it sufficiently difficult?
53. In which is it too difficult?
54. In which is it not difficult enough?
55. Which seem best adapted to the grade for which they are intended?
56. Which exemplify the spiral system?
57. Which has explanatory notes?
58. Which have foot notes?
59. Which has the best definitions?
60. Which have questions?
61. Which have testing questions?
62. Which have those provocative of thought?
63. Which have a key or guide to pronunciation?
64. Which have lists of new and difficult words?
65. Which have a lexicon or pronouncing vocabulary?
66. Which have the lessons well divided?
67. Which poorly divided?
68. Which make no division into lessons?
69. Which have the lessons well graded?
70. Poorly graded?
71. Which make practically no attempt at gradation?
72. In which are there lists of illustrations?
73. Which has a list of artists and their most famous productions?
74. In which are there illustrations on the title page?
75. Which has colored illustrations in books of the lower grades?
76. Of the upper grades?
77. Which has famous stories told entirely by pictures?



78. Which has the finest illustrations?
79. Which the poorest?
80. In which are they purely decorative?
81. Which has the best portraits of authors?
82. Which have historical illustrations?
83. In which are two or three pictures grouped?
84. In which are there headpieces?
85. In which tailpieces?
86. Which have great difference in type?
87. In which is the print small?
88. In which is it most attractive?
89. In which is it clearest?
90. Which have the best quality of paper?
91. In which do the lessons not begin at the top of the page?
92. Which has the best index?
93. Which have a list of books that ought to be in the library?
94. What style of literature predominates in Brumbaugh's Standard First Reader?
95. In the First Reader in the Stepping Stones to Literature?
96. In Book One in Lights to Literature?
97. In the First Reader in the Progressive Course in Reading?
98. In the First Book in the graded Literature Readers?
99. In Jones' First Reader?
100. In the First Year of School Reading by Grades?
101. In Book I. of Heart of Oak Books?
102. In Heath's First Reader?
103. In the First Year Language Reader?
104. In Brumbaugh's Standard Second Reader?
105. In the Second Reader of Stepping Stones to Literature?

106. In Book Two of Lights to Literature?
107. In the Second Book of the Progressive Course in Reading?
108. In the Second Book of the Graded Literature Readers?
109. In Jones' Second Reader?
110. In the Second Year of School Reading by Grades?
111. In Book II. of Heart of Oak Books?
112. In Heath's Second Reader?
113. In the Second Year Language Reader?
114. In Brumbaugh's Standard Third Reader?
115. In the Third Reader of Stepping Stones to Literature?
116. In the Third Reader of Lights to Literature?
117. In the Third Book of the Progressive Course in Reading?
118. In the Third Book of Graded Literature Readers?
119. In Jones' Third Reader?
120. In the Third Year of School Reading by Grades?
121. In Book III. of Heart of Oak Books?
122. In Heath's Third Reader?
123. In the Third Year Language Reader?
124. In Brumbaugh's Standard Fourth Reader?
125. In the Fourth Reader of Stepping Stones to Literature?
126. In the Fourth Reader of Lights to Literature?
127. In the Fourth Book of the Progressive Course in Reading?
128. In the Fourth Book of Graded Literature Readers?
129. In Jones' Fourth Reader?
130. In the Fourth Year of School Reading by Grades?
131. In Book IV. of Heart of Oak Books?
132. In Heath's Fourth Reader?
133. In the Fourth Year Language Reader?

134. In Brumbaugh's Standard Fifth Reader?
135. In a Reader for Fifth Grades in Stepping Stones to Literature?
136. In the Fifth Reader of Lights to Literature?
137. In the Fifth Book of the Progressive Course in Reading?
138. In the Fifth Book of Graded Literature Readers?
139. In Jones' Fifth Reader?
140. In the Fifth Year of School Reading by Grades?
141. In Book V. of Heart of Oak Books?
142. In Heath's Fifth Reader?
143. In the Fifth Year Language Reader?
144. In a Reader for Sixth Grades in Stepping Stones to Literature?
145. In the Sixth Book of Graded Literature Readers?
146. In the Sixth Year of Baldwin's Readers?
147. In Book VI. of Heart of Oak Books?
148. In Heath's Sixth Reader?
149. In the Sixth Year Language Reader?
150. In a Reader for Seventh Grades in Stepping Stones to Literature?
151. In the Seventh Book of Graded Literature Readers?
152. In Book VII. of Heart of Oak Books?
153. In a Reader for Higher Grades in Stepping Stones to Literature?
154. In the Eighth Book of Graded Literature Readers?
155. In the Eighth Year of Baldwin's Standard Readers?



## PART II.—ENGLISH.

---

### CHAPTER X.

#### ENGLISH.

**Definition of Language Study.**—Language study teaches a child the correct use of the mother tongue in speaking and writing. It is preparatory to grammar and in one sense is grammar, but is not so called because the latter is much more technical and because to many a child the word grammar suggests a study to be dreaded because of its difficulty.

**When Teach Language.**—As soon as the child enters school, language may be taught by means of conversational lessons upon subjects that are familiar and interesting.

**The Basis of Language Study.**—Nature study, literature, including English and foreign classics, history, art, including masterpieces in sculpture and painting, and geography, may be made the basis of language study.

**Correlation of Language with Other Studies.**—The connection between language and reading is very close.

Language may also be correlated with nature study, geography, drawing and manual training. If the general lessons are made interesting, language lessons will easily grow out of them.

**A Separate Period for Language.**—Each lesson should be a language lesson in the sense that the child's mistakes in speaking and writing should be corrected, but it is also well to have a period set apart which should be distinctively a language recitation.

**Reproduction of Stories.**—The oral reproduction of

stories may begin in the first grade and increase in difficulty as the child advances and is able to reproduce them in written form.

**When Use the Text?**—When the child is able to read understandingly and gain information from the book he may use a language text. This would probably occur in the third grade.

**Technical Grammar in the Language Book.**—While technical grammar should not predominate in the language book, a limited amount may appear therein preparatory to the intensive study of grammar.

**Value of Language Study.**—It teaches the child—

- I. To speak and write correctly.
- II. To be more fluent in expression.
- III. To enlarge his vocabulary.

**When Begin the Study of Grammar?**—At one time it was thought that when the child was able to read for information, which would be about the third grade, he was ready to begin the serious study of such texts as arithmetic, geography and grammar, but riper judgment decrees that he shall not begin until the sixth or seventh grades, or even later.

**Why Study Grammar?**—I. Perhaps the best and most forceful reason that may be urged is that the child may be prepared to understand thoroughly English literature.

II. Whitney says: "We study grammar that we may correctly, accurately and quickly determine all the thought in the English sentence and see every shade of meaning."

III. The intensive study of grammar should lead the pupil to improve the structure of his own sentences.

IV. An able authority states that grammar is one of the best subjects that can be studied for developing the reasoning power.

V. It produces swift, accurate, logical and independent thinking.

VI. It creates for the pupil a standard by which to correct his own speech.

VII. It places before him reasons for the standard given.

**Does Grammar Exercise the Reasoning Faculty?**—If grammar is taught correctly it does exercise the reasoning faculty to a marked degree. The judgment called for in analyzing and in deciding what part of speech a word is, often calls forth very deep reasoning on the child's part.

**The Thought Relations of Words.**—This signifies the relation which one word bears to another in the sentence. The relation of subject and predicate, of the modifiers of each, and of phrases and clauses, are included under this.

**The Place Relation of Words.**—This signifies simply the place or space which a word occupies in the sentence.

**Is Grammar a Thought or a Fact Study?**—Many teachers have required the pupil to spend the major part of his time studying facts, memorizing rules and definitions and have called that grammar.

If grammar is properly taught it should be made emphatically a close study of thought relations.

To interpret other studies the pupil needs to see the thought relations existing between words and he can be led to see these relations through the study of grammar, which is an intense thought study when presented as it should be. In fact, an eminent authority has said that in all probability it is more of a thought study than arithmetic.

The training that comes from the study of grammar is invaluable, since if the mind is rightly developed it may lead to the study of logic.

**How Grammar May be Made an Intensive Study.**—It is essential that there should be formal drill in the parts of speech and their uses, but if grammar is to be made such a delight to the pupil as to become one of his most fascinating studies, the connection between it and literature must be a vital one.

If sentences, different from those found in the grammar, are placed upon the board for study, if the child is made to see that he is studying books rather than texts and above all if he studies beautiful and uplifting thoughts clothed in words of beauty, the study of grammar may appeal to him in an altogether different light from that in which it ordinarily does.

**Is Grammar an Inductive or Deductive Study?**—As ordinarily considered, it is a deductive study, but its effects are far more beneficial when considered inductively.

The ordinary grammar a few years ago was arranged on this wise:

1. The definition.
2. The illustration.
3. Sentences for practice usually formed according to the same model.

The modern method is:

1. Questions that will lead the pupil to formulate the definition.
2. The definition.
3. Illustration.
4. Sentences for practice which are interesting, varied, and such as demand thought from the pupil.

If the sentences are to demand deep thought on the pupil's part, they must be varied. There may be enough sentences to illustrate the special case, but there should



be also sentences of kinds previously studied to call forth studious effort.

These sentences may be taken from history and literature, as is customary in the German schools, and be such as will impart information.

**How Insure Correct Speech?**—While it would seem plausible that the child who has always been surrounded by people speaking correct English would be more likely to use it himself, this does not follow by any means, nor does it follow that a thorough knowledge of grammar will secure correct speech.

In the case where parents do not use correct English we cannot be certain that example, instruction or knowledge of principles and rules will avail, for it is said that “the parents’ example will often set to naught the teacher’s example.”

**How Interest the Child in Using Correct Speech.**—

1. By placing before him a fine model.
2. By bringing to his notice literary productions of a high order that interest him.
3. By criticising his mistakes so tactfully that he will not be discouraged, but will be incited to greater effort.
4. By impersonal criticism of mistakes made in current conversation.
5. By appealing to the child’s desire to use correct English because it is the standard of the educated.

**Why a Teacher Should Have Command of Good English.**

—To be a good conversationalist means not simply to be voluble, but to speak to the point, without repetition, in few and choice words.

The ambitious teacher should have within herself the desire to use the purest English possible because it is the standard of education.

It is of special advantage to the teacher to have a good command of language, because:

1. Of necessity the average teacher is forced to talk the major part of the time each school day from nine o'clock until four.

2. Whether she wills it or not, whether her English is good or poor, whether she uses slang or not, she will be copied by the pupils.

3. She commands more respect from her pupils if she speaks correctly, since it is the insignia of a good education.

4. She may aid in enlarging the pupil's vocabulary.

5. She must know English well in order to criticise adequately the oral and written work of the pupil.

6. She needs to:

a. Question skillfully.

b. Explain clearly.

c. Illustrate forcibly.

d. Describe vividly.

e. Draw distinctions closely.

f. Convince thoroughly in argument.

7. She must lead the pupil skillfully to formulate rules and definitions.

8. She must use good English if she wishes to give pleasure and make lasting impressions upon those with whom she comes in contact.

**Correction of Errors in Expression.**—It is well to have definite exercises for the correction of errors in expression, either selected by the teacher from the conversation of the pupils, or by the pupils from expressions which reach their ears. If these are corrected orally, in an impersonal manner, as it is perfectly easy to do, it may prove of great value because grammatical knowledge may be as firmly fixed in this way as in any other. If

the models placed before the child in speaking and writing are correct, it would seem that his tendency would be to speak and write correctly himself. For this reason, while the oral correction of sentences may prove beneficial, incorrectly written sentences should be placed before the child but seldom, and then only when his habits of expression are practically formed.

**Why the Child Dislikes Grammar.**—The child dislikes grammar because :

1. He does not understand it.
2. It is not made interesting to him.
3. It is not well taught.
4. He does not see what good it will do him.

In other words, there is not the proper connection made between the study of grammar and his life. It is the experience of many a pupil that after a foreign language, such as Latin, with its intricate constructions and intensive work in grammar has been studied, English grammar, which heretofore had been a closed book, became suddenly capable of being understood and enjoyed.

5. Parents do not always see the necessity for it.

6. The teacher has required the child to memorize rules and definitions and has called that grammar, when it is only an infinitesimal part of it.

7. The tradition is handed down from class to class and from pupil to pupil that it is "hard" and therefore to be dreaded.

**The Complaint of the High School Teacher of English.**—The high school teacher of English complains that the child is not properly grounded in the rudiments of grammar, and that the grade teacher has not done her work with sufficient thoroughness so that he has an adequate foundation for high school work.

Parts of speech, which may be called the substantials

of grammar, should be learned in the grades so that they will not be forgotten. The child should understand especially the active and passive verbs and know how to use them. He should be taught to separate the essentials from the non-essentials. If the high school and the grade teacher should visit each other and compare notes, and if the pupil be allowed to use his grammar in the high school to consult it occasionally and thereby refresh his memory, there might be less complaint made by the high school teacher.

**The Use of Dictionary and Encyclopedia.**—If the pupil is required to consult the dictionary and encyclopedia for the better understanding of a word, phrase or sentence, it would make him consider the thought relations, broaden his study of grammar and create in him the studious habit of going to the foundation of matters.

**Why the Pupil Tires of the Written Exercise.**—The pupil tires of the written exercise because:

1. The oral work requires so much less downright drudgery than the written work, and the average pupil does not like to delve.

2. He is required to produce so many written exercises.

3. He is not given interesting subjects to write upon.

4. Often the written exercise isn't handed in, he is not required to make a recitation upon it in class, no reference is made to it, or comments offered upon it, and no incentive to his ambition is offered in having his work compared with that of others.

5. Of its unvaried monotony.

**Formulating the Definition.**—It is difficult to formulate a definition, for it is a generalization of what has preceded, and in making it, the essentials must be included and the non-essentials excluded.

The definition should be clearly worded and should contain the choicest words to express the exact thought.

The pupil should be led step by step, as is the custom in the German schools, to formulate the definition himself, because:

1. It is by this means that he is taught to reason inductively.

2. His self-activity is aroused to a high degree, since to form the generalization well means a decided advance in thinking.

3. He will remember the definition longer if he formulates it himself, for if the exact words are forgotten and he has the idea, he can repeat the process of reasoning and reform it at will.

**Diagramming.**—If the pupil uses the diagram simply as a means to an end, and diagrammed to obtain a mental picture of the relations of words in the sentence as a foundation for better analysis, it would undoubtedly be of value to him.

It may serve as a device to help the teacher, since in a large class she can see at rapid glance just how each pupil regards the sentence under consideration. A few of the reasons why it does not seem desirable to diagram are:

1. The place instead of the thought relations of words are emphasized.

2. A pupil who is able to diagram a sentence may be unable to analyze.

3. It may be so used as to be a positive hindrance to further advancement, for many a pupil stops short at diagramming, feeling that his work is completed when that is accomplished, when in truth he is just at the point where the intricate work of analysis should begin.

4. Attention is focused upon forming and placing the lines and writing the words upon the lines rather than upon the thought of the sentence.

**The Dread of Composition.**—The average child dreads composing, because:

1. He is not familiar with the subject upon which he is to write.

2. He is not interested in it.

3. It is beyond his capacity.

4. He was not properly trained in writing in the lower grades.

## CHAPTER XI.

**QUESTIONS ON ENGLISH.**

1. What is language study?
2. To what is it preparatory?
3. Why is it not called beginning grammar?
4. What is the difference between language and grammar?
5. When begin to teach language?
6. When cease?
7. What may be made the basis of language study?
8. With what studies may language be correlated?
9. How correlated with these?
10. How may language lessons grow out of general lessons?
11. Should there be a separate recitation for language?
12. Should every lesson be a language lesson?
13. In what grade should reproduction stories be used?
14. When is the best time for the language recitation?
15. What are good texts in language?
16. When should the child begin to use the text book in language?
17. Should the language book contain technical grammar?
18. What should the study of language do for the child?
19. When begin the study of grammar?
20. Why study grammar?
21. Does it exercise the reasoning faculty?
22. What part of reason requires the greatest sagacity?

23. How is grammar peculiarly fitted to train the powers of observation?

24. What is meant by the place relation of words?

25. What is meant by the thought relation?

26. Is grammar a thought or a fact study?

27. How does it compare with history, geography and psychology as a thought study?

28. Of what value are the facts of grammar?

29. What is the difference between a content and a form study?

30. Should formal drill in the parts of speech and their uses predominate, or should there be a vital connection between literature and grammar?

31. What are the studies immediately succeeding grammar?

32. To what does the study of grammar lead?

33. Is grammar an inductive or deductive study?

34. What is meant by the spiral system in grammar?

35. What are good texts to use in grammar?

36. Will the child who has always been surrounded by people speaking correctly, use correct English?

37. Is he more likely to do so?

38. What is true of the parents' example?

39. Does a thorough knowledge of grammar insure correct speech?

40. Why?

41. How would you interest the child in using good English?

42. How may the habits of incorrect speech be overcome?

43. Why should a teacher especially have command of good English?

44. Should the teacher use slang?



45. What is the value of grammar as a corrective discipline?

46. Should there be definite exercises for the correction of errors in expression?

47. Should they be made up?

48. Should they be selected from the daily world of the pupils?

49. How can mistakes be corrected best?

50. What is the value of this exercise?

51. Does it deprive the technical grammar recitation of any time?

52. Should incorrectly written sentences be placed before the child for correction?

53. At what age is it safe?

54. Why does the child dislike grammar?

55. What aid does the study of a foreign language render here?

56. What should the child's knowledge of grammar be when he enters the high school?

57. Should grammar be studied in the high school?

58. Of what does the high school teacher of English complain?

59. What use should be made of the dictionary?

60. Of the encyclopedia?

61. Why does the child tire of the written exercise?

62. In what ways may the written exercise be varied?

63. What subjects may be suggested to the pupil upon which to write?

64. Would you ask for written work you do not expect to examine?

65. To which should the most time be given:

1. To the analysis of sentences?

2. To the classification and modification of the parts of speech?

66. Why should analysis stand at the beginning of any logical grammar?

67. Why is it difficult to formulate a definition?

68. Who should formulate the definitions?

69. Why?

70. Of what value is the formulation of the definition?

71. By whom are they formulated in the German schools?

72. What kind of reasoning is taught by formulating the definition?

73. What is meant by nomenclature?

74. Should the pupil diagram?

75. Of what value is it?

76. What are the arguments against it?

77. What are the difficult subjects in the study of grammar?

78. Of what did the method in the ordinary grammar consist a few years ago?

79. What is the modern method?

80. How often should the child be given a lesson in letter writing?

81. What may be made the subject of letters?

82. How may this exercise be varied?

83. Why does the average pupil dread composition?

84. How can the pupil be induced to think deeply?

85. Could grammar be made of as much disciplinary value as arithmetic or the languages?

86. What is the principal disciplinary value of grammar?

87. What are good devices in grammar?

## CHAPTER XII.

**OUTLINE FOR THE STUDY OF TEXTS IN ENGLISH.****V. Preface**

- a. Number of pages?
- b. Comparative length?
- c. Main heads?
- d. Are they definitely brought out?
- e. Comprehensive?
- f. Purpose of book stated?
- g. Clearly set forth?
- h. Names of critics given?
- i. Acknowledgment of aid?

**VI. Acknowledgment of permission to publish?**

Where found

- a. Preface?
- b. Close of selection?

**VII. Article on the English Language?****VIII. Development of the English Language?****IX. Elements of English Grammar?****X. Introduction.**

- a. Length?
- b. Main theme?

**XI. Contents.**

- a. Comparative length?
- b. Number of lessons?
- c. Divided into parts?
- d. Chapter indicated?
- e. Page indicated?

**XII. List of Authors.**

- a. Where found?
- b. Authors of highest rank?
- c. Modern authors ranking well?

**XIII. Suggestions to Teachers.**

- a. Where found?
- b. Helpful?
- c. Sufficient number?

**XIV. Suggestions to Pupils.**

- a. Comparative number?
- b. Helpful?
- c. Practical?
- d. Where found?

**XV. Material of Text.**

1. Upon what based?
  - a. Nature study?
  - b. Classics?
  - c. Fine literary selections?
  - d. Facts of history?
  - e. Poems?
  - f. Occupations of men?
  - g. Fables?
2. Examination of text.
  - a. Inductive?
  - b. Deductive?
  - c. Logically arranged?
  - d. Has emphasis been laid on the thought relations of words?
  - e. Is it practical?
  - f. Does it refer to the every-day life and thought of boys and girls?
  - g. Any very lengthy selections?
3. Arrangement of material?
  - a. Logical sequence?
  - b. Kindred subjects grouped?
  - c. Lessons of same nature interspersed through text?

- d. Topical?
  - e. Spiral?
4. Story.
- a. Begun?
  - b. Unfinished?
  - c. For paragraph revision?
  - d. From pictures?
  - e. From topical outline?
  - f. From brief hints?
5. Composition.
- a. Number of lessons on this subject?
  - b. How fully treated?
  - c. What subjects treated?
  - d. What classics does it contain?
6. Letter writing.
- a. Number of lessons on this subject?
  - b. How fully treated?
  - c. Section upon letter writing?
  - d. Parts of a letter defined?
  - e. Letter forms?
  - f. Letters of friendship?
  - g. Business forms?
  - h. Business transactions?
  - i. Invitations?
  - j. Replies?
  - k. Telegrams?
7. Study of
- a. A word picture?
  - b. Meaning of words?
  - c. Quotations?
8. Exercises.
- a. Comparative number?
  - b. How often found?
  - c. Where found?

- d. Oral?
  - e. Written?
  - f. Dictation?
  - g. In composition?
  - h. In copying sentences and filling blanks?
  - i. For finding different forms?
  - j. Which kind predominates?
9. Miscellaneous.
- a. Biographies of famous painters?
  - b. Selections to be committed to memory?
  - c. Descriptions?
  - d. Article on the nature of ideas?
  - e. Article on the nature of thoughts?
  - f. Turning sentences into other forms?
  - g. Grouping?
  - h. Synonyms?
  - i. Proverbs?
  - j. Strictly grammatical?
10. Are models or patterns provided in sufficient quantity?
- a. Of declension?
  - b. Of conjugation?
  - c. Of expression?
  - d. Of correct forms?
11. What kind of lessons predominate in the book?
12. Which predominates (1) prose? (2) poetry?
13. Is there too much sameness to the lessons?
14. Are chapters well numbered in blacker type?
15. Are main heads well brought out?

#### **XVI. Rules.**

- a. Comparative number?
- b. How developed?
- c. After development are they grouped?
- d. In blacker type?

- e. In italicized print?
- f. Where found?

**XVII. Definitions.**

- a. Comparative number?
- b. How reached (1) inductively? (2) deductively?
- c. Entire wording in blacker type?
- d. Clear?
- e. Comprehensive?
- f. In italicized type?
- g. Principal word italicized?
- h. In which part of the book most prominent?

**XVIII. Principles.**

- a. Comparative number?
- b. How reached
  - 1. Inductively?
  - 2. Deductively?
- c. Clear?
- d. Definite?

**XIX. Questions.**

- a. Comparative number?
- b. How often found?
- c. Testing?
- d. Provocative of thought?
- e. Logical sequence?
- f. Are questions asked for teachers' aid answered?

**XX. Reviews.**

- a. Simply drills upon what has been previously gone over?
- b. A new view of an old subject?
- c. Frequent?
- d. How often occur?
- e. Contain important features?
- f. Non-important features?

**XXI. Summaries.**

- a. Comparative number?
- b. Contain essentials?
- c. Non-essentials?

**XXII. Explanations.**

- a. Comparative number?
- b. Lengthy?
- c. Short?
- d. Clear?
- e. Confusing?
- f. Adequate?

**XXIII. Pronunciation of difficult words.**

- a. Number of pages?
- b. Important?
- c. Non-important?
- d. Diacritically marked?
- e. Separated?
- f. Accented?
- g. Where found?

**XXIV. Devices.**

- a. Comparative number?
- b. Varied?
- c. Practical?
- d. Where found?

**XXV. Nomenclature.**

- a. Universally intelligible?
- b. Of long-continued usage?
- c. Technical?
- d. Substitutes?
- e. Unusual terms?

**XXVI. References to the Dictionary.**

- a. Comparative number?



**XXVII. Division into lessons.**

- a. Well divided?
- b. Poorly divided?

**XXVIII. Grading of lessons.**

- a. Well graded?
- b. Poorly graded?

**XXIX. Illustrations.**

- a. List of illustrations?
- b. Number?
- c. Quality—(1) Fine? (2) Medium? (3) Poor?
- d. Educative?
- e. Purely decorative without special reference to text?
- f. Copies of old masters?
- g. Copies of famous modern pictures?
- h. Source given?
- i. Portraits of authors?
- j. Full of suggestion?
- k. Do they suggest movement or action?
- l. Continuous or progressive pictures?
- m. Where found
  1. At beginning of lesson?
  2. Grouped at close of book?

**XXX. Peculiar use of words and phrases?****XXXI. How words have grown?****XXXII. Prefixes and suffixes?****XXXIII. Root words?****XXXIV. Seat-work?****XXXV. Appendix.** a. Length? b. Of what consist?**XXXVI. Index.**

- a. Well arranged?
- b. Alphabetical order?
- c. Arranged for correlation?
- d. Important subjects worked out fully?

- XXXVII. For what age?
- XXXVIII. For what grade?
- XXXIX. Unusual features of book?
- XL. Favorable criticisms?
- XLI. Unfavorable criticisms?
- XLII. Problems before the teacher?
- XLIII. Psychological aspect?

## CHAPTER XIII.

**REVIEW QUESTIONS ON ENGLISH TEXTS  
EXAMINED.**

1. Which acknowledge permission to publish?
2. Which acknowledge aid?
3. Which devotes a special topic to the English language or to the development of it?
4. Which has the best introduction?
5. Which has the best table of contents?
6. Which are based upon nature study?
7. What text bases the study of grammar upon fine literary selections?
8. Which strive to correlate grammar and literature?
9. Which contain fine literary selections?
10. Which contain information even in the shorter sentences?
11. Which contain short quotations from the masterpieces?
12. Which contain the names of authors in connection with the selections?
13. In which does prose predominate?
14. In which poetry?
15. Which are treated inductively?
16. Which deductively?
17. Which is the most logically arranged?
18. In which has emphasis been laid on the inner content of language?
19. Which has studies for thought analysis?
20. Which contain lessons of practical value in life?
21. Which has comparatively long selections?

22. Which are constructed on the topical plan?
23. Which on the spiral plan?
24. Which has the best suggestions to teachers?
25. Which has the best suggestions to pupils?
26. In which are fables found?
27. Which contain story work?
28. Which contains the best exposition of letter-writing?
29. Which has the study of a word picture?
30. Which contain the most varied exercises?
31. Which has the best exercises for composition?
32. Which contain the best models?
33. Which contain few rules?
34. Which have the best rules?
35. In which are they scattered throughout the text?
36. Which have them grouped at close of text?
37. Which contain the best definitions?
38. In which are they grouped?
39. Which have the best principles?
40. Which has many questions?
41. Which has few?
42. Which contain testing questions?
43. Which contain those provocative of thought?
44. Which contain frequent reviews?
45. Which present reviews in a new light?
46. Which have summaries?
47. Which has the best summaries?
48. Which contain the best explanations?
49. In which are the difficult words pronounced?
50. In which are many devices found?
51. Which has the most varied nomenclature?
52. Which contain selections to be committed to memory?
53. Which strive to conform to ordinary usage in the matter of technical terms?

54. Which has a list of illustrations?
55. Which have pictures that are educative because they illustrate the subject?
56. Which contain progressive pictures—one growing out of another?
57. Which language books contain pictures that suggest movement and action?
58. Which have copies of famous masterpieces?
59. Which has the finest illustrations?
60. In which are there biographies of famous painters?
61. Which has the best appendix?
62. Which has the best index?
63. Which have important subjects worked out fully in the index?
64. Which have an index of authors?
65. Which state the grades in which it is to be used?
66. In which are there references to other books?
67. Which contain references to the dictionary?
68. Which contain errors to be corrected?
69. Which emphasize the use of the diagram?
70. In which is there a brief statement of the purpose before each section of the book?
71. Which contain sufficient supplementary material?
72. Upon what is the elements of English grammar by Brown & De Garmo based?
73. Upon what is De Garmo's Language Lessons, Book I., based?
74. Upon what is De Garmo's Lessons, Book II., based?
75. Upon what is the Mother Tongue, Book I., based?
76. Upon what is the Mother Tongue, Book II., based?
77. Upon what is Gordy & Mead's Language Lessons based?
78. Upon what is Gordy & Mead's Grammar Lessons based?

79. Upon what is Foundation Lessons in English, by Woodley & Woodley, based?
80. Upon what is Foundation Lessons in English Language and Grammar, by Woodley & Carpenter, based?
81. Upon what is New Lessons in Language, by Southworth, based?
82. Upon what is English Grammar and Composition, by Southworth, based?
83. Upon what is the Webster-Cooley Language Series, Book I., based?
84. Upon what is the Webster-Cooley Language Lessons and Elementary Composition based?
85. Upon what is Lyte's Elementary English based?
86. Upon what is Lyte's Elements of Grammar and Composition based?
87. Upon what is Lyte's Advanced Grammar and Composition based?
88. Upon what is Reed & Kellogg's Graded Lessons in English based?
89. Upon what is Reed & Kellogg's Higher Lessons in English based?

## CHAPTER XIV.

**PROBLEMS THAT CONFRONT THE TEACHER OF  
ENGLISH.**

1. To make the study of grammar a fascinating study.
2. To emphasize the "thought" rather than the "place relation" of words.
3. To teach the pupil that there is a vital connection between grammar and literature.
4. To lead him to a more thorough understanding of literature.
5. To teach him to delight in fine literature through the study of grammar.
6. To prepare him for the better comprehension of literature by thought analysis.
7. To lead him to study books rather than texts.
8. To teach him to view language as a form or symbol used for the expression of thoughts.
9. To teach him that definitions and rules aid in the expression of thought.
10. To emphasize the essentials.
11. To interest the pupil in subjects too often ignored, e.g.,
  - The nature of language.
  - Its relation to thought and style.
  - Processes which affect its growth and decay.
  - The province of grammar.
  - The relation of grammar to usage.
12. How to lead the pupil to a clear understanding of difficult points in grammar.
13. To be able to explain clearly.

14. To lead the pupil to understand the principles of grammar.
15. To aid him in formulating definitions.
16. To teach him to analyze.
17. To provide sufficient material for analysis.
18. To teach the pupil that diagramming does not necessarily mean analyzing.
19. To develop the pupil's reasoning power.
20. To teach him to reason inductively.
21. To cultivate in him the power of discrimination.
22. How to teach composition work effectively.
23. To lead the pupil to progress constantly in composing.
24. To lead him to discuss informally.
25. To teach him to speak correctly and to express himself fluently.
26. How to correct errors in speech most efficiently and tactfully.
27. To lead the pupil to correct his own mistakes in English.
28. To provide abundant material for supplementary exercises not all of the same kind and requiring but little effort.
29. To present to the pupil for exercises beautiful thoughts clothed in words of beauty.
30. How to lead him to be self-active in this subject.
31. To teach him to select his own material for exercises outside of the text.
32. To teach him to use the dictionary and encyclopedia in connection with the study.
33. To decide which exercises to omit.
34. How to present reviews in a new light.
35. How to teach the spiral system.
36. How best to divide lengthy chapters.



37. How to supplement the few questions found in some texts.
38. How to cover the ground required in a stated period.
39. How to plan the work that it will demand deep thinking on the pupil's part.
40. How to make grammar a disciplinary study.



## PART III.—ARITHMETIC.

---

### CHAPTER XV.

#### ARITHMETIC.

**When Begin the Study of Number.**—It is customary to teach the child number as soon as he enters school, because of public sentiment.

If this subject should be postponed and he should be given work preparatory to, and along the same line as number to develop his mind until he had been in school for a while, he would probably gain an advantage, for he would be better able to use his reason and judgment later and would doubtless be as far advanced in the end as if he had studied number from the beginning of his school life.

**The Use of Objects.**—Objects should be used to teach the beginning lessons in number.

They should not be of such a nature as to attract attention to themselves, but such as would make number relations more clearly understood.

The uncolored, one-inch cube is the best for class work because:

1. It is of convenient size for the child to handle.
2. It is the standard of measure.

Uncolored shoe pegs may be used for seat work.

**What Teach the Child the First Year, Second Year and Third Year.**—Some teachers would teach from

- 1 to 10 the first year.
- 10 to 20 the second year.
- 20 to 100 the third year.

Others would teach from

1 to 10 the first year.

10 to 100 the second year.

100 to 1,000 the third year, so as to emphasize the decimal feature.

D. E. Smith would teach

1 to 12 inclusive the first year.

1 to 1,000 the second year.

1 to 10,000 the third year.

This occurs in his "Course of study prepared after a long and careful study of the best courses that are at present in use in the educational centers of the United States."

**When Use the Book?**—When the child is able to handle the book intelligently and gain information from the printed page, which would be about the third grade, he should use a text in arithmetic.

One authority says, by the middle of his second school year, he can use the text.

**Synthesis.**—The word synthesis is derived from two Greek words and means to put together.

Synthesis includes addition and multiplication.

**Analysis.**—The word analysis is also derived from two Greek words and signifies to unloose or take apart.

Subtraction and division are included under analysis.

**The Incidental Teaching of Arithmetic.**—By the incidental teaching of arithmetic is meant that no separate recitation period is given to the subject of arithmetic, but that whenever a subject under discussion will permit of an arithmetical trend, the teacher plans beforehand, with the greatest care, to give it one.

When a principle is once brought up, it is to be taught with the thoroughness that it would receive if it was considered in the period set apart for arithmetic.

**Accidental Teaching.**—The accidental teaching of arithmetic means that no period is set apart for arithmetic, and the teacher does not plan to give the subject an arithmetical turn, but if a pupil asks a question pertaining to arithmetic, the teacher, in answer, teaches the subject, whatever it may be, thoroughly and well.

The difficulty in this case is, that if the pupils do not chance to ask mathematical questions the subject of arithmetic is almost altogether slighted.

While good results might be obtained by incidental teaching in the hands of a skillful worker, the outcome of accidental teaching would be neither particularly beneficial nor practical.

**With What Subjects Might Arithmetic be Correlated if Taught Incidentally?**—Arithmetic might be correlated with geography, reading, history, drawing, manual training, language and nature study.

**The Educational Value of Arithmetic.**—White says:

The chief aim of training in arithmetic from the first, should be to impart rapidity and accuracy in all processes. It should give a clear grasp of number relations.

**Jackman says:**

Arithmetic gives accuracy, exactness and vividness to ideas.

It renders hazy notions clear.

It evolves the definite from the indefinite.

**Roark says:**

Arithmetic cultivates originality and precision of thought.

It teaches exactness in analysis.

It teaches quickness and correctness in the manipulation of figures.

It teaches increased neatness of written work done according to prescribed forms. (A matter of sufficient

importance to justify far more attention than it usually receives.)

**Fitch says:**

Arithmetic is a discipline in closeness and continuity of thought.

It teaches the child to think consecutively, closely and logically.

It serves as a training in elementary logic.

It teaches rapidity.

It teaches concentration of effort.

**Alger says:**

The purpose of arithmetic is to enable the child to understand the meaning of life's problems through:

First. Sense experiences.

Second. By suggestion through the use of the fundamental processes.

It cultivates the ability to determine the quantitative relations of facts, not only in connection with business, but with all the facts of that description with which the mind has to do.

**In Actual Life Why Do We Need Arithmetic?**—Each individual needs it in obtaining commodities.

Unquestionably the business man needs it.

The householder needs it in carrying on his occupation in life, whatever that may be, in caring for his family and providing for his household and in all his financial relations.

The housewife needs it in purchasing her supplies, in dealing with those whom she may employ, her servant, her seamstress, in her social relations and in keeping her personal accounts.

**“Culture Value” of Arithmetic.**—By “culture value” is meant that knowledge which broadens the pupil and

makes him a more intelligent human being and a more useful citizen.

Literature, history, geography and similar subjects impart culture value by broadening and developing the pupil in innumerable ways.

So much of life is concerned with the relation which man bears to man that such subjects as these give the pupil the necessary understanding of them.

Undoubtedly arithmetic broadens and develops the pupil, but it is questionable whether it does to the same degree that the above-mentioned subjects do.

Arithmetic is simply a means to an end. The pupil understands certain subjects in literature, history and geography better, because of his knowledge of arithmetic.

He needs arithmetic to solve the problems his other experiences bring up.

It has its place, but some authorities feel that too prominent a position has been given to it in our curriculum in the past. When one employs his leisure hours with a book, it is the rare individual who studies arithmetic as a diversion. When man meets man in discussion, unless it be a purely business engagement, the topics under discussion would, under ordinary circumstances, be current affairs in country, state or town, or some leading article or book lately published.

Arithmetic might also be called the middle-man. He is essential and yet we use him as a medium to understand other things.

**Which Instill into Pupils—What Arithmetic is or What It Will Do?**—Most decidedly the latter. Arithmetic is a worker and a servant, we need to use him for the purpose of discovering something that will serve our ends in some way.

**Facts or Processes?**—Such a subject as addition or interest should be considered finished when the pupil knows the facts which may be obtained by means of the process, rather than when he has simply mastered the process.

The process is necessary, for the problem cannot be performed without it, but the fact is the essential thing to be sought. The process is just a crutch to lean upon to find out the fact.

If A owes you \$736 and B owes you \$897 your interest is to know the amount of the indebtedness of both to you.

Page after page in the arithmetic has been consumed with the process. If more of the problems with which the process is concerned, should be given it might be made more of a thought and less of a mechanical study.

**Of What Value is it to First Solve Problems by Indicating a Number of Operations and Then to Perform the Operations Indicated Afterwards?**—It is of the greatest value, for this is the work that demands the child's greatest self-activity and his highest thought power; the rest is simply a mechanical process which anyone who has a knowledge of the fundamentals can perform.

**Should the Pupil be Stimulated to Further Investigation?**—Most emphatically. This would be one of the surest ways of interesting him in the subject of arithmetic.

It would make him see the connection between arithmetic and the facts of his life in a very satisfactory way and might serve to broaden his knowledge of the manifold phases of life with which he comes in contact.

The material which the book contains is a task set him by others. The problem which he originates is a self-imposed task, one always performed more willingly than that imposed by another.



Perhaps the highest office a teacher can render a pupil is to so direct his self-activity that he may become an originator, a discoverer, a producer, and surely investigation would be a step in this direction.

Problems concerned with the price of a plot of ground, e. g., the public park situated in the heart of the town, valued at thousands of dollars, even though land is of average cost, would make the child appreciate the city's sacrifice for the sake of ministering in comfort and beauty to its inhabitants.

If he forms problems with regard to a public building under construction, the architect's plans, the wood, stone, iron work, plumbing, and decorations, it would make him appreciate such a building as he could not otherwise.

Problems concerning the cost of the steamer he saw launched, of the cargo it would carry, and of the amount it would make per season, would broaden and interest him.

**Topical System.**—The topical system in arithmetic signifies that when a subject is considered, it is exhaustively treated and may perhaps not be referred to again in the text.

**Extreme Spiral System.**—The extreme spiral system indicates that a subject is considered only partially and recurs at regular intervals with a slight review and the addition of new and more difficult matter, until completed.

**Modified Spiral.**—The modified spiral differs only slightly from the extreme in that the subject recurs at irregular instead of regular intervals until completed.

**The Natural Order of Gaining a Knowledge of Forms and Processes.**—The natural order in which the mind gains a knowledge of forms and processes and uses them in practical experience is:

1. Simple numbers or integers.
2. Common fractions.
3. Decimals.
4. Percentage.
5. Applications of percentage.

**The Storage Theory.**—The storage theory means to teach the child such subjects as stocks and bonds for which he will have no immediate use, in the thought that some day it may be necessary for him to know about them.

This causes the child to study subjects which are not at all within the range of his experience, which do not interest him, which he does not use now, which there is a bare possibility of his using years hence or which he may never use.

It is not to be wondered at if he seeks outside aid or approaches such a subject in a half-hearted, perfunctory manner.

**The Present Use Theory.**—The advocates of the present use theory urge the teaching of such subjects in arithmetic as the pupil needs to comprehend those things with which he is brought in contact at the present time.

It is believed that if he needs to use in later life some neglected phase of arithmetic, he will be able to master it with much more concentration of mind and to much more purpose because there is urgent necessity to put it into immediate practice.

It is thought that the power of concentration gained from the studies he has pursued will enable him to accomplish this. If the pupil knew that in a specified time he would be obliged to teach the very subject in which he had been a pupil, he would bend his energies upon it with an entirely different spirit from what he would if he thought there was simply a possibility of teaching it

some indefinite time in the future. A mature man, with a family depending upon him, employed in a lumber camp, was informed that he could occupy a higher position if he had a knowledge of a certain mathematical subject. He devoted himself with all the power accumulated through years of life and experience to the study of this subject, conquered it quickly, for he felt the pressing need of it, and assumed the higher position creditably to himself and with profit to his employers.

**What Kind of Problems Should the Book Contain?**—The problems should be such as will develop and broaden the child's mind and yet give him sufficient practice in the necessary principles of arithmetic.

**Catch Problems.**—There is a notable absence of catch problems in some of the newer and later texts.

As a rule, there is no practical connection between problems of such a nature and the child's life, and there seems to be no special reason why he should solve them except that a certain kind of exhilaration comes from conquering a difficulty.

**The Formation of Rules.**—The child himself, with the necessary aid of the teacher, should formulate the rules, for it teaches him to reason inductively. It is a more inductive way of teaching to so arrange the text that the rules are not the prominent feature but are either grouped at the close or omitted altogether.

Some of the best authorities say that the important thing is that the operation be performed correctly, it matters but little whether the rule is known or not.

**Why No Rules?**—In the report of the Committee of Ten, page 105, it reads: "So far as possible, rules should be derived inductively instead of being stated dogmatically. In this system the rules will come at the end, rather than at the beginning of a subject."

Colonel Parker once prophesied that the time would come when there would be an arithmetic containing neither rules nor definitions, and it would seem as if the modern trend of thought was tending that way.

**Why No Definitions in Some Arithmetics?**—Definitions are not so prominent in some of the newer as in the older texts, and some contain no definitions whatever.

White says: "There should be only a few definitions and these should be taught inductively."

**Should There be a Set Form for the Analysis of a Problem?**—Time was when the teacher gave a set form for the analysis of a problem and required the child to repeat it *verbatim et literatim*, the class also often reciting it in concert.

Today it suffices if the child below the fifth grade can give in his own words, an intelligent enough reason why he did thus and so, in order that the teacher may be satisfied that he understands it.

Beyond this grade the teacher may require more accurate work in analysis if she so chooses.

**The Solution of Problems Without Performing the Operations.**—Solving a problem without performing the operation is of great value to the pupil, for when this is done, the hard work, namely, the planning of the process, which necessitates far greater brain power than performing the operation, is completed.

What remains to do is only the mechanical part which even the unskilled can perform and implies simply a mastery of the fundamental operations.

The indication of operations is of aid to the teacher, for it is a good proof of the pupil's skill and proficiency.

**Should the Metric System be Taught?**—Certainly the metric system should be taught, for it is the one employed

by scientists. If it was used all over the world it would simplify matters, especially in transactions between nations.

The pupil can comprehend the measurement of small quantities better by this system than by others.

The number ten which is employed so frequently in the metric system is easy for the pupil to remember.

Today many physicians use this system instead of the apothecaries' weight as formerly.

The amount of machinery exported from the United States is constantly increasing and it is demanded that the metric system be used in construction so that those who are to identify themselves with this work must understand this system.

**Algebra and Geometry in Arithmetic.**—Many of the new and progressive texts contain chapters in algebra and geometry.

Formerly when arithmetic contained neither of these, algebra and geometry seemed subjects apart by themselves; now the connection between the three can be made much closer and their inter-relation can be made manifest as it could not formerly. The child often endeavored to solve arithmetical problems by algebra but was restrained and told to perform them by arithmetic.

Some texts recognize this tendency and suggest that algebra be used in the operation.

**How Much Algebra and Geometry Should the Arithmetic Include?**—It should include some of the simpler operations in algebra and geometry. These subjects should be arranged logically so that the pupil will see clearly the connection between them and arithmetic.

There should be enough lessons provided for so that the pupil will be given a start in each and yet not be led beyond his depth.

**Speed or Accuracy?**—One of the chief values of arithmetic is that it teaches the pupil to be accurate, and it is very essential that he be trained in this particular.

In fact it is much more necessary that he be accurate than that he be speedy, for the accurate pupil will often outstrip the speedy one.

Accuracy is the necessary foundation of speed, but the pupil needs the former first, last and all the time.

Speed is also desirable and is very essential in its place. It is said that "speed means habit" and it is well if the pupil can be taught to be quick, swift and speedy.

If he needs to acquire speed for some particular purpose he can accomplish this by himself, but the teacher had better devote most of her energies toward teaching accuracy.

**Value of Estimates or Approximates.**—Estimates and approximates have a value of their own. Even if one cannot take the time or does not choose to work the example through and carry it out to its fractional parts, the estimate or approximate often gives as clear an idea as is necessary for the purpose.

**Should the Text Contain Answers?**—The principle and not the result should be uppermost in the pupil's mind.

A bright and thorough pupil works as diligently as he can without consulting the answer, because it is a delight to him to perform an arithmetical operation correctly.

The slow pupil will often hold the answer rather than the principle prominently in mind and if the former does not come by one process he tries any means which will bring the result, utterly regardless of the principle; indeed he often works backward from the answer.

In ordinary practice, perhaps it is better to provide the younger pupils with answers and require the older and

more independent workers to do without, proving their work to see if it is correct.

**When is the Best Period for the Arithmetic Recitation?**—Because arithmetic requires such mental effort the best time for the recitation is when the mind is clearest; and that, under ordinary circumstances, is the first or second period in the morning. If this time is used for the recitation then the study period must necessarily be the last thing the previous day and the pupil should be given a few moments for refreshing his memory before he recites.

**Why Has Such Stress Been Laid Upon Arithmetic in the Past?**—Because:

I. It is practical and is needed in all callings in life.

II. It was believed:

a. That through this “most ancient of all sciences” the pupil received the greater part of his mental discipline.

b. That through the study of mathematics the child was taught to reason logically.

c. That evidence of greater brain power was shown in the mastery of arithmetic than in that of any other subject.

III. Of sentiment of patrons.

a. The average parent would rather have his child strong in arithmetic than in any other subject, and desires him to be quick and accurate in the operation of his problems.

b. The parent often feels that if his boy understands arithmetic it will enable him to make his way in the world of finance whether he comprehends other subjects or not.

IV. Of the Pupil's Attitude.—a. The pupil likes to feel the consciousness of his power to overcome and master.

b. If he is grappling with a problem that he recognizes as worthy of his mettle, he is not willing to give up until he has conquered.

c. After long hours of struggle over a problem, a thrill of triumph and exhilaration comes when finally it is completed and the correct answer gained, such as rarely ensues when studying other subjects.

All this the pupil thoroughly enjoys.

**Is Too Much Time Given to Arithmetic?**—It is the opinion of some recognized thinkers that in the past time has been given to arithmetic entirely out of proportion to that bestowed upon other subjects.

It is believed that the pupil would be broader and more cultured if he gave more of his time to such subjects as literature and history, which would make him better fitted to deal with men of the world.

**Should as Much Time be Devoted to Arithmetic as to Reading?**—The subject of reading is one that is begun when the pupil first enters school and is the one with which the individual, at all inclined to literary pursuits, has the most to do so long as life lasts.

The average mature person beguiles his leisure hours with some form of literature, not the study of arithmetic.

Since so much of his life is concerned with literature, why not devote time enough to it so that he will understand it as a pupil and enjoy it thoroughly in after years?

**Elimination.**—There are those who think that the child should not waste his force upon subjects that are rarely or never used in practical life and that he might better gain the same amount of discipline through some study that would give him more culture than arithmetic, such as literature, history or geography.

They believe that time is actually wasted in problems that are of no real value to the child's life.



Dr. Wm. H. Maxwell, in the *Educational Review*, Vol. III., would eliminate cube-root, equation of payments, compound proportion, partnership, exchange, true discount, partial payments, bonds and stocks, and the greater part of what goes by the name of mensuration. He further states that cities that now give twenty-five per cent of the whole time of school to the teaching of arithmetic might with advantage cut that amount down to at least one-half.

Dr. J. P. Gordy, in his *Broader Elementary Education*, states, that "a knowledge of the four fundamental rules, of simple and decimal fractions, of the simple applications of percentage, of simple interest and discount with a few of the simple rules of mensuration will suffice."

As eminent an authority as D. E. Smith, of Columbia University, writes in his *Outlook for Arithmetic in America*, that "Our people, as a whole, no longer care about the greatest common divisor, cube-root, such common fractions as are not needed in practical business; about troy and apothecaries' weight, compound numbers beyond the merest elements, compound proportion, or, for that matter, about simple proportion, either.

Alligation, duodecimals, equation of payments, and partnership involving time, have finally been relegated to the arithmetical museum, and the good common sense of our people will demand that these other inheritances follow them."

### **Why Do Some Pupils Dislike Arithmetic?—Because:**

- I. It was not so taught in the beginning grades that the child was interested in it.
- II. He was not well grounded in the fundamentals.
- III. He does not understand it.
- IV. He does not know how to read a problem so as to comprehend its requirements.

V. It is considered a difficult subject and he does not like to work hard.

VI. He is not capable of the concentrated effort necessary to obtain the correct results.

VII. He is too easily discouraged.

VIII. He has not the gift of perseverance.

IX. The text is too difficult.

X. The subject is not connected with the facts of his life.

XI. He fails to see the necessity for some topics included in the text.

XII. Classmates are swifter in obtaining results and he becomes discouraged and thinks it is useless to try.

XIII. The teacher puts an entirely new example on the board to be solved and gives him no inkling of the principle involved or of the method of performing it.

XIV. He has placed such reliance upon the assistance of others that he is not so independent in his thinking as he should be.

XV. The teacher does not make clear explanations.

**How to be Sure That the Pupil Has Worked Independently.**—I. Send the pupil to the board alone and require him to perform the problem.

II. Call upon him for an explanation.

III. Demand his reasons for the process.

IV. Insist upon proof for the problem.

V. Assign him problems to perform on the board unlike those which he has worked in the study period, but illustrating the same principle.

In spite of all this, he may have understood the help received so well as to conceal the fact that he was aided when studying. Otherwise he would be likely under this probing process to betray his lack of independence.

**Should Pupils Work Problems Together?**—If pupils of the same degree of capability work problems together it may be beneficial.

When they desire to do this, however, it is not usual for both to possess the same degree of ability.

The weaker one may receive help from the stronger and gain an impetus which may inspire him to study harder, but he relies upon the former to such an extent that his self-activity is not sufficiently aroused to make him self-reliant and, if he could but see it, he is really injuring himself and destroying his power of originality.

When attempting to work the problem over again by himself, perhaps he may even be unable to solve it or give his reasons for the process. He may remember it long enough to make a creditable recitation in class, but cannot solve it afterwards because he did not think it out for himself in the first place.

When in recitation he performs the problem in which he has been aided, he sometimes deceives the teacher as to his understanding of it and does not receive the aid which he needs, and which would otherwise be given him.

In view of all this, as a rule, it seems best that pupils should work independently.

**How Keep Pupils From Handing Down Note-books?**—To keep pupils from handing down note-books:

I. If possible provide work that is new or different from that which other classes have done so that old note-books will not aid the pupil.

II. Appeal to the owner's sense of honor.

III. Appeal to the pupil's sense of honor.

IV. Lead him to see that if he copies, he is his own worst enemy.

V. Train him to desire to do everything independently and to resent aid.

VI. Lead him to see that the independent thinkers are the ones on whom others rely, and those who really are useful and who accomplish something in the world.

**Why Does the High School Teacher Have Trouble in Teaching Arithmetic?**—The high school teacher of arithmetic is troubled because the pupil does not take the initiative but waits to be led.

If arithmetic were made more of an investigating study and the pupil were forced to take the initiative in the lower grades, the high school teacher's task would be less difficult.

**The Business Man's Complaint.**—The business man complains that the high school graduate's knowledge of arithmetic is lacking because the latter is slow and inaccurate.

The business man needs an expert in accuracy and swiftness, so that his work may be done satisfactorily, no mistakes may be made and his customers may not be kept waiting while a novice waits to figure out with paper and pencil, ordinary computations that should be made on the instant by the mind.

While it may not be the teacher's province to train clerks, yet drill in speed may easily be given the pupil.

**Should the Teacher Use a Key?**—The teacher has a perfect right to obtain all the aids she can command. It is better, however, that the pupil should not know that they are in the teacher's possession.

Only an able teacher can use a key to advantage, because when she has digested the explanation, which often is as intricate as the problem itself, she must have it so well in mind that she can explain every detail, otherwise she may betray that she has sought aid.

A key is of aid in two cases:

I. It may be that the teacher is introducing a new book and is capable, but the problem is difficult and would take hours to solve, which time she cannot spare.

II. It may be that the teacher is unable to solve it and her reputation may be saved.

## CHAPTER XVI.

**QUESTIONS ON NUMBER AND ARITHMETIC**

1. When begin the study of number?
2. Why?
3. Why is it not called arithmetic?
4. What is the difference between number and arithmetic?
5. What is meant by the terms concrete and abstract?
6. When does the child come to the abstract idea of number?
7. Should objects be used?
8. If so, what objects?
9. Should colored objects be used?
10. What is the abacus?
11. What teach the child
  - First year?
  - Second year?
  - Third year?
12. When begin the use of the text?
13. How teach the subject before this?
14. Should short or long division be taught first?
15. How should arithmetical tables be taught?
16. What processes are there in arithmetic?
17. What is meant by synthesis?
18. What operations does this include?
19. What is meant by analysis?
20. What operations does this include?
21. What is meant by incidental teaching in arithmetic?
22. By accidental teaching?
23. To what grades do incidental and accidental teaching especially refer?

24. With what subjects may arithmetic be correlated, if taught incidentally?
25. What is the educational value of arithmetic?
26. In actual life why do we need arithmetic?
27. A thorough understanding of what studies is dependent upon arithmetic?
28. May pupils gain "culture value" from arithmetic?
29. Does the study of arithmetic teach the child to reason only along mathematical lines?
30. Why might arithmetic be called a form study?
31. Which should we instill into pupils, what arithmetic is, or what it will do?
32. Should the object of arithmetic in the child's mind be a knowledge of the process involved or a knowledge of the facts which may be gained by means of the process?
33. What would you call the child's need in arithmetic?
34. When should such a subject as addition or interest be considered finished, when the pupil knows the facts, or has mastered the processes?
35. How might arithmetic be made more of a thought study?
36. Of what value to the child is it to first solve problems by indicating a number of operations by the proper signs and then to perform the operations indicated afterwards?
37. Should the child be stimulated to further investigation?
38. What are some good texts in arithmetic?
39. What is the topical system in arithmetic?
40. What is the extreme spiral?
41. What is the modified spiral?
42. What is the natural order in which the mind gains a knowledge of forms and processes?

43. What is meant by the storage theory?
44. What are the advantages of this theory?
45. The disadvantages?
46. What is meant by the present use theory?
47. What are its advantages?
48. What its disadvantages?
49. What kind of problems should the book contain?
50. Should the text contain catch problems?
51. Who should formulate the rules?
52. Why are there no rules in some texts?
53. Who should formulate the definitions?
54. Why are there no definitions in some arithmetics?
55. Should there be a set form for the analysis of a problem?
56. How often should reviews be given?
57. Of what value is it in review to require pupils to write rapidly the solution of several problems without stopping to perform the operations?
58. Should the metric system be taught?
59. Why?
60. Should arithmetic include algebra?
61. Why?
62. Should it include geometry?
63. Why?
64. How much of each?
65. Should the pupil be allowed to solve arithmetical problems by algebra?
66. Should the teacher strive for speed or accuracy?
67. What value have estimates or approximates?
68. What short methods are deemed practical?
69. Should the text contain answers?
70. What are the difficult subjects in the study of arithmetic?
71. What mathematical subjects succeed arithmetic?



72. What is the best period for the arithmetic recitation?
73. Should arithmetic be made the basis of promotion?
74. Was the teacher justified, who promoted pupils working correctly over fifty problems?
75. Why has such stress been laid upon arithmetic in the past?
76. Is too much time given to it?
77. Should as much time be given to arithmetic as to reading?
78. Should any subjects be eliminated from arithmetic?
79. Why?
80. If so, what ones?
81. Why do some children dislike arithmetic?
82. Can a child be "born short" in arithmetic?
83. How be sure the child has worked independently?
84. Should pupils be allowed to work problems together?
85. Why?
86. In what ways do pupils cheat when working problems at the recitation seats?
87. How may the work be so planned that this will be impossible?
88. In what ways is cheating conducted when problems are worked upon the blackboard?
89. How may the teacher plan the board work so that deception can be detected?
90. What materials should be employed in written work at the seat? Why?
91. How keep pupils from "handing down" note-books?
92. Should note-books be destroyed?
93. Why is it difficult to teach the child fractions?
94. Should the child be taught to invert the fraction or simply to imagine the inversion?
95. Is the student who is strong in arithmetic, also strong in other lines of work?

96. Does the specialist in mathematics possess the qualities of honesty, uprightness and truthfulness?
97. Should drills in arithmetic be given during opening exercises?
98. In what grade should the study of arithmetic cease?
99. Should there be a final review of arithmetic in the high school?
100. Why?
101. Why does the high school teacher have trouble in teaching arithmetic?
102. What complaints do business men make when discussing the high school graduate's knowledge of arithmetic?
103. How may arithmetical records be kept?
104. If the complete mastery of the problems of a new text is not possible before beginning to teach the subject, what should the teacher do?
105. If after every effort has been exhausted to work a problem, the teacher still fails to obtain the correct answer, what should be done?
106. Should the teacher have a key?
107. From what nation did we get some of our subjects in arithmetic?
108. What books treat of the history of arithmetic?
109. What mathematical periodicals are helpful in this subject?
110. What are good devices in arithmetic?

## CHAPTER XVII.

**OUTLINE FOR THE STUDY OF TEXTS IN  
ARITHMETIC.****V. Preface.**

- a. Number of pages?
- b. Comparative length?
- c. Main heads?
- d. Are they definitely brought out?
- e. Comprehensive?
- f. Does it contain only essentials?
- g. Does it contain unnecessary details?
- h. Does it state reasons why arithmetic is taught?
- i. Does it state the ends to be accomplished by the book?
- j. Does it contain names of critics?

**VI. Introduction.**

- a. Comparative length?
- b. Acknowledgment of aid?
- c. Names of critics?

**VII. Contents.**

- a. Comparative length?
- b. Divided into parts?
- c. Logical?
- d. Are subjects grouped?
- e. Found in different parts of book?
- f. Indexed?

**VIII. Suggestions to teachers.**

- a. Comparative number?
- b. Sufficient number?
- c. Helpful?
- d. Where found?

1. At bottom of page?
2. Interspersed through text?

### IX. Material.

1. Arrangement?
  - a. Logical?
  - b. Illogical?
  - c. Topical system?
    1. Is there a sequence of topics?
    2. Does it embody mathematical principles in interesting and instructive groups?
    3. Is there an exhaustive treatment of each subject whenever it is under discussion?
  - d. Extreme spiral?
  - e. Modified spiral?
2. Inductive?
3. Deductive?
4. Attractive?
5. Repellent?
6. Baldly mechanical?
7. Based on a rational psychological method?
8. Practical?
9. Addressed to understanding?
10. Addressed to memory?
11. Does it represent real or artificial conditions?
12. Drawn from industrial sources and every-day affairs?
13. Does it relate to matters with which pupils' experience in and out of school have familiarized him?
14. Does it open to the pupil a wide range and variety of uses for elementary mathematics in commercial affairs?
15. Does it follow the storage theory?
16. What subjects found in the old arithmetics are omitted?

17. Is arithmetic correlated with other subjects?
18. Does it secure clearness, precision and certainty of thought?
19. Is it difficult?
20. Too difficult?
21. Not sufficiently difficult?
22. Is it suited to the particular stage of the pupil's development?

### **X. Problems.**

- a. Industrial?
- b. Business (in commerce)?
- c. On locomotive engine?
- d. Agricultural?
- e. In farm account keeping?
- f. Geographical?
- g. In manual training?
- h. In nature study?
- i. In physical measurements?
- j. Do they call for actual measurements by pupils?
- k. Does text require pupil to make standards of measure?
- l. Are there suggestions for original problems?
- m. Examination?
  1. How many?
  2. From what cities?
- n. Are the data correct and consistent?
- o. Do they touch the actual life of this country at this time?
- p. Tiresome inheritance of the past?
- q. Are they suited to the pupil's thought power?
- r. Are they conducive to mental discipline?
- s. Oral
  - a. Comparative number?

- b. How often found?
- c. Where found?
- t. Written
  - a. Comparative number?
  - b. How often found?
  - c. Where found?
- u. Miscellaneous
  - a. Number of pages?
  - b. Where found?
  - c. Adequate?
- v. Sight
  - a. Comparative number?
  - b. How often found?
- w. Catch
  - a. Comparative number?
  - b. Absence of?

**XI. Division into lessons.**

- a. Well divided?
- b. Poorly divided?

**XII. Grading of lessons.**

- a. Well graded?
- b. Poorly graded?

**XIII. Definitions.**

- a. Comparative number?
- b. How reached
  - Inductively?
  - Deductively?
- c. Clear?
- d. Lengthy?
- e. Concisely worded?
- f. Printed in italics?
- g. Principal words in italics?
- h. Principal words in blacker type?

- i. Synopsis of?
  - 1. Number of pages?

**XIV. Rules.**

- a. Comparative number?
- b. Absence of?
- c. How developed
  - Inductively?
  - Deductively?
- d. Concisely worded?
- e. After development are they grouped?
- f. Where found
  - 1. In blacker type?
  - 2. In italicized print?

**XV. Explanations.**

- a. Comparative number?
- b. Brief?
- c. Lengthy?
- d. Clear?
- e. Confusing?
- f. Adequate?

**XVI. Cautions.**

- a. Comparative number?
- b. Where found?

**XVII. Tables.**

- a. What ones?
- b. How developed?
  - Inductively?
  - Deductively?
- c. Where found
  - 1. Scattered through book?
  - 2. Massed at back of book?

**XVIII. Questions.**

- a. Comparative number?
- b. Testing?

- c. Provocative of thought?
- d. Logical sequence?
- e. Where found?

**XIX. Reviews.**

- a. Frequent?
- b. Few?
- c. How often found?
- d. Contain important features?
- e. Contain non-important details?
- f. Material presented as in previous lessons?
- g. New view of an old subject?
- h. Problems in Addition, Subtraction, Multiplication and Division found on one page?

**XX. Summaries.**

- a. Frequent?
- b. Few?
- c. Contain essentials?
- d. Non-essentials?

**XXI. Drills.**

- a. Comparative number?
- b. Upon essential subjects?
- c. Non-essential subjects?

**XXII. Algebra.**

- a. How many pages devoted to this subject?
- b. What topics are considered?
- c. Are the rudiments well covered?
- d. Is it correlated with arithmetic?

**XXIII. Geometry.**

- a. Concrete?
- b. Abstract?
- c. Are the rudiments well covered?
- d. Do problems call for actual measurements with instruments by the children?



- e. Introduced only as it applies to mensuration?
- f. Plenty of constructive work?

**XXIV. Suggestions to pupils.**

- a. Comparative number?
- b. Helpful?
- c. Practical?
- d. Where found?

**XXV. Illustrations.**

- a. What is the list of illustrations?
- b. What are the subjects?
- c. Number?
- d. Of modern life?
- e. Do they aid in the understanding of number relations?
- f. Are they helpful in suggesting material for the pupil to use?
- g. Do they render more interesting and real, groups of problems?

**XXVI. Short methods.**

- a. Number of pages?
- b. Number of methods?
- c. What are presented?
- d. Are they practical?

**XXVII. Answers**

- a. Comparative number?
- b. Number of pages?
- c. Where found?
- d. Is the key published?

**XXVIII. General review of arithmetic.**

- a. Number of pages?
- b. What subjects are presented?
- c. Essential subjects?
- d. Non-essential subjects?

**XXIX. Approximations.**

- a. Comparative number?
- b. In connection with what subjects found?

**XXX. Metric system.**

- a. How many pages devoted to it?
- b. Is treatment sufficiently full?

**XXXI. Accuracy.**

- a. In material of text?
- b. In figures?
- c. Of statements in problems?
- d. Of answers?

**XXXII. Inaccuracies.**

- a. Comparative number?
- b. Does author invite correction of?

**XXXIII. Supplementary work.**

- a. Of what nature?
- b. Adequate?
- c. Where found?

**XXXIV. Size of print.**

- a. Large?
- b. Small?
- c. Difference in type?

**XXXV. Appendix.**

- a. Contents?
- b. Number of pages?
- c. Unusual features?

**XXXVI. Index.**

- a. Number of pages?
- b. Alphabetically arranged?

XXXVII. For what age?

XXXVIII. For what grade?

XXXIX. Favorable criticisms?

- XL. Unfavorable criticisms?
- XLI. Unusual features of book?
- XLII. Problems before the teacher?
- XLIII. Psychological aspect of Arithmetic?

## CHAPTER XVIII.

**REVIEW QUESTIONS ON THE TEXTS OF ARITHMETICS EXAMINED.**

1. Which has the longest preface?
2. Which the shortest?
3. Which states four aims which it hopes to accomplish?
4. Which would serve as a good chapter on arithmetic for the methods recitation?
5. Which is founded on a rational psychology?
6. Which strives to present a pedagogical development of elementary mathematics?
7. Which strives to preserve continuity throughout the book?
8. Which states three steps that are to be observed in teaching number?
9. Which favor object teaching?
10. Which authors ask to have errors pointed out to them?
11. Which acknowledge aid?
12. Which contains the best preface?
13. Which books contain an introduction or review of previous work?
14. Which has an introduction designed to form a transition from vacation experiences to the severe study of formal processes?
15. Which has the best table of contents?
16. Which recognize a general demand for abridgment of topics?
17. Which contains notable omissions?
18. Which try to exclude irrelevant matter?
19. Which do not contain longitude and time?
20. Which conform to the storage theory?

21. Which to the present use?
22. Which states at the beginning of each chapter the general plan and then proceeds to go into details?
23. Which repeats important chapters?
24. In which are suggestions to teachers found?
25. Which has the best?
26. Which has the most logical arrangement?
27. Which typify the topical system?
28. Which the extreme spiral?
29. Which the modified spiral?
30. Which are inductive?
31. Which deductive?
32. Which is addressed to the understanding rather than the memory?
33. Which correlates arithmetic with other subjects?
34. Which strive to deal especially with problems connected with the actual life of the child today?
35. Which are too difficult?
36. Which not sufficiently difficult?
37. Which contains problems based on geography?
38. On history?
39. On manual training?
40. On nature study?
41. On physical measurement?
42. On the time book of a small manufactory?
43. On some of our great railways?
44. On distances from Chicago to fourteen railroad centers of the United States?
45. On the army and navy?
46. On some of the large buildings of the world?
47. On our iron mines?
48. On the thermometer?
49. On the barometer?
50. Involving the expenses of the home?

51. On the skiameter?
52. On school statistics for thirty of the largest cities of the United States?
53. On Brooklyn's assessments and taxes for ten years?
54. On United States government lands?
55. What book emphasizes commercial relations?
56. Which treats of problems in which our country excels others?
57. In which others excel us?
58. Which call for actual measurements by pupils?
59. Which calls for estimation of magnitudes by pupils?
60. Which contain data for original problems?
61. In which are puzzling problems found?
62. Which book contains curious comparisons?
63. Which do not contain catch problems?
64. Which mention that care has been exercised to make the data of problems correct?
65. In which are the lessons well divided?
66. Poorly divided?
67. In which is there no division into lessons made?
68. In which are the lessons well graded?
69. Poorly graded?
70. Which contain definitions?
71. Which contain practically no definitions?
72. Which have definitions massed at end of text?
73. Which contain a prophecy made by Col. Francis Parker with regard to arithmetic?
74. Which have rules?
75. Which have rules at end of text?
76. Which contain practically no rules?
77. Which has the clearest explanations?
78. Which contain cautions?
79. In which are tables grouped in the back of the book?
80. Which has many questions?

81. Few questions?
82. Which has the best reviews?
83. Which has a general review of arithmetic?
84. Which contain examination questions gathered from different cities and sources?
85. Which has the best test questions?
86. Which emphasize thoroughness?
87. Which gives exercises for drill in speed?
88. Which emphasizes rapidity?
89. Which strive to overcome complaints of business men and high school teachers by plenty of drill?
90. Which strive to train rapid computers?
91. Which contain algebra?
92. Which use the equation in the solution of arithmetical problems?
93. In which is algebra treated as a chapter by itself?
94. In which is it connected with arithmetic almost throughout the text?
95. In which is the best work on algebra found?
96. Which contain geometry?
97. Which contains the best work on geometry?
98. Which gives work in geometrical drawing?
99. Which has the best suggestions to pupils?
100. Which believes that pictures aid in the understanding of certain number relations?
101. Which contains illustrations not usually found in an arithmetic?
102. Which contains colored illustrations?
103. Which treats of the four fundamental operations whenever a new topic is considered?
104. Which contains supplementary work?
105. Which contains a supplement?
106. Which has the best appendix?
107. Which contain short methods?

108. Which contain work on approximations?
109. Which treat of the metric system?
110. Which contains the best work on the metric system?
111. In which is the greatest common divisor called the greatest common measure?
112. Which contains a table of exports?
113. Which has the best index?
114. Which have answers?
115. Which have a key?
116. In which is a protractor found?
117. Which text do you like best?
118. Which least?



## CHAPTER XIX.

**PROBLEMS WHICH CONFRONT THE TEACHER IN  
TEACHING ARITHMETIC.**

1. To lead the pupil to see in all ways that there is a vital connection between arithmetic and the facts of life.
2. To present the subject so as to awaken a pleasant feeling towards it.
3. To help the pupil to enjoy arithmetic.
4. To discover if the pupil has been well grounded in preceding grades?
5. To strengthen his previous work, providing he has not been thoroughly taught.
6. To be able to explain clearly the difficult points in the subject.
7. To make the explanations so clear and simple that the pupil cannot fail to understand them.
8. To present a new subject so clearly that one explanation will suffice to give a thorough understanding of it.
9. To be ready with several ways of making an explanation clear, in case the pupil does not understand the first one presented.
10. To see that the pupil and not the teacher does the work of the recitation.
11. To see that the pupil grasps fully a subject presented only partially, as in the spiral system, before he advances to another topic.
12. To cultivate in him the logical spirit.

13. To teach him to explain his processes clearly and concisely.
14. To lead him to analyze his own problems.
15. To incite him to the highest degree of self-activity.
16. To teach him to formulate definitions.
17. To lead him to formulate rules.
18. To lead him to see in how many different ways problems may be worked correctly.
19. To incite him to work original problems.
20. To lead him so far as possible to build up tables of measurement for himself.
21. To encourage him to bring to class arithmetical problems, found outside of texts, that come within the range of his interests.
22. To incite him to further investigation.
23. To obtain the best written work from him both on paper and blackboard.
24. To cultivate in him the power of concentration.
25. Since such concentration of mind is needed on the part of the class, how to keep them in good humor by touches of harmless mirth.
26. To cultivate in the pupil a desire for accuracy.
27. To drill him so that he will not be slow and inaccurate in ordinary computations.
28. To teach him to be thorough.
29. To teach him to depend upon himself when working his problems.
30. To detect whether he has worked independently.
31. To detect cheating.
32. To discover if the pupil is simply copying another's work or if he really understands the reasons for what he does.
33. To provide sufficient material to keep the bright pupil fully employed during the study period and

yet not of such a nature as to advance him too far beyond the class.

34. To correlate Algebra and Geometry with Arithmetic.
35. How to assign lessons in the most helpful way.
36. To what degree to aid the pupil in the preparation of the lesson and to what extent to leave him to depend upon himself.
37. How much work to give him in a stated period.
38. How much time to spend upon arithmetic in comparison with other subjects.
39. To decide what subjects, if any, to eliminate from arithmetic.
40. To provide plenty of material outside of the text for supplemental work and drills.
41. To provide against monotony.
42. How much to review.
43. How much drill to give.
44. To decide to what degree to use objects.
45. How to keep the class together in its work.
46. To see that the teacher himself does not suffer professional isolation.



## PART IV. GEOGRAPHY.

---

### CHAPTER XX.

#### GEOGRAPHY.

**Educational Value of Geography.**—The true study of geography is so far-reaching in its scope that it cannot fail to render the child broader minded and more intelligent, because:

I. It makes the child the central thought and teaches him his personal relations to the earth and its surface.

II. It teaches him how his habits differ from those of his European brothers and from what these differences result.

III. It makes him appreciate more fully, and feel more at home in, his own environment.

If he studies thoroughly his own home geography, then travels and observes that of another region, he can interpret far more intelligently his home surroundings.

IV. It enables him to understand foreign countries better because he comprehends his immediate environment.

V. It teaches him to read intelligently periodicals, whether newspapers or magazines, books of travel or those in which there are geographical references.

VI. To listen intelligently to lectures.

VII. To understand better current events that are transpiring in other parts of the world.

VIII. To interpret art more intelligently.

IX. To interpret music more intelligently.

X. To follow friends in their journeys.

XI. To cultivate his power of imaging clearly and also his constructive imagination.

The mountains or the sea can only become real to the child as he uses his apperceptive faculties.

Colonel Parker said: "A clear image of one part of the world intensifies an interest in all that happens there."

XII. To cultivate his perceptive faculties because of the field work he should do.

XIII. To develop in reasoning power.

The pupil used to be taught to remember that a city occupied a certain place on the map. Now he is shown the reason why a city has developed at such a point or why an industry has localized at a certain place. For example, cities have been established at Raleigh, Columbia and Macon, because:

1. They are at the head of navigation.
2. The fall line furnishes the water power.
3. They form a trading post between two industries.

XIV. To reason inductively.

XV. As he reasons from cause to effect and from effect to cause, he learns to exercise the "theorizing activity" which Dr. Gordy considers so valuable in the study of history.

XVI. It must develop in the child a certain sympathy with a people who are laboring under geographical disadvantages, e. g., with the Kentucky mountaineers.

This country is so cut up and dissected by streams that one man has only a small tract of land to cultivate, and he is separated from his neighbors and from practically all contact with civilization.

Mill says, that it is the best example to be found of the geographic control of a people.

In direct contrast to this is the man who settles in the

Blue Grass region of this same state and makes his fortune.

The following story is told of two brothers who moved into this state. One settled in the Blue Grass region and his sons and daughters are among the highly educated people of this commonwealth. The other settled in the plateau and his children are poor and uneducated.

XVII. It gives the child the key to the degrading and elevating influences of the structural and climatic environment.

Until the bearing of climate and its effect on the people of the torrid zone is understood, we have no right to judge their morality, because, under the existing conditions, it is impossible for them to live up to our standards.

XVIII. It teaches the child his dependence upon his fellow beings for food, clothing and the utensils demanded by his life. A certain Boston school requires one or more pupils to board nearly every ship arriving at that city from a foreign port, in order to learn the character of its cargo.

XIX. It prepares the child to travel intelligently.

It is a trite saying that a year of travel is worth a year of school work. In some of the most progressive European schools the teacher travels with a limited number of pupils and teaches them en route.

A teacher in the Duluth schools took an imaginary ocean trip with her pupils, and some highly educated parents, whose children came under this teacher's instruction, unhesitatingly testified that their sons and daughters were prepared to visit foreign lands more intelligently than they themselves, because of study under her supervision.

XX. It shows the child how the human mind has

triumphed over the obstacles of nature and even over the limitations of climate and soil.

For example, the irrigation processes carried on in the West.

The Pennsylvania railroad tunneling through the mountains of that state.

XXI. It teaches the child the value of knowing well a few good types as a foundation for future study.

XXII. It helps the child to interpret with more breadth of meaning the study of history.

### **Excursions.**

I. Excursions teach the child:

1. To observe.

It is said that no other power enters more vitally into the child's ultimate success than that of being able to observe accurately.

2. To study objects rather than books.

3. To see and reason logically.

4. To describe graphically.

5. To be self-reliant in full and clear expression.

II. Excursions help the teacher:

1. By broadening her knowledge of practical affairs.

2. By bringing her into closer touch with the child and thus giving her a better opportunity to note his individualities.

III. Teacher's preparation:

The teacher should visit the place first in order to understand it thoroughly herself, to decide wisely what will interest and instruct the child and prepare questions to ask him.

An excursion is difficult to manage and unless clear instructions are given the class before it starts, haphazard results may be expected from the recitation.



The child should be told definitely just what he is expected to observe. Groups of two or three may be given a special topic to report upon.

During one summer session at Chicago Institute, each member of the excursion was given a mimeographed copy of questions to be answered when the class reassembled.

The teacher may invite her friends or appoint a few of the more reliable pupils to assist her in any necessary discipline.

IV. What pupils need for the excursion:

It is best to take as little extra baggage as possible.

Note-book and pencil.

Knapsack and hammer.

A lunch if the excursion is a long one and food is not easily obtained for a large number.

A kodak, if the pupil chooses.

Clothing suitable for a long, hard tramp.

Shoes that are easy to the feet, and short skirts for the women.

Great care should be taken to prevent accident, and if a place is visited which is at all dangerous it is best to take only a few of the younger pupils at a time.

V. Where take excursions:

Chicago Institute took one excursion to the Sand Dunes in Indiana, another to Winnetka, where the entire course of a rivulet was traced to the point where it emptied into Lake Michigan.

Places where excursions may be taken with interest to both pupils and teacher are numberless. No attempt is made to make the following list complete, but it may be suggestive to the teacher. Excursions may be taken to Dubuque; Des Moines, where the legislature, the Capitol building, the Historical building, and Fort Des Moines may be visited; the Indian Mounds, United States

Arsenal at Davenport; the Indian reservation at Tama; the Amana colony; a well-equipped hospital; factories of all kinds, canning, cement, tile, button, stove, cracker, sled, broom, and gate.

The city of Des Moines had what was called factory day. The factories throughout the city were all thrown open to visitors and the pupils of the public schools were transported from one plant to another. Where the product was edible, refreshments were served. The day, doubtless, was profitable both to the manufacturers and the sight-seers.

Excursions may also be taken to the mine; the saw mill; the packing house; the beet sugar industry; a well appointed dairy; a court house; the water works; the electric light plant; public buildings; a large department store; the printing office; the planing mill; the river; the nursery, summer and winter; the flour mill; the blacksmith shop; the iron foundry; the brick kiln; a frame house twice while in process of construction; the wharves; the freight house; the ice house, both where it is manufactured and stored; and some place where the depth and quality of soils may be studied.

#### VI. Ensuing recitation.

When the class again assembles, the questions that have been asked may be answered, maps may be drawn and the sand table used.

Specimens gathered and kodak pictures taken while on the trip may add interest to the recitation.

These excursions may be made the basis for the drawing lessons and also for the written work.

Parents do not always see the value of such excursions, but think their children will learn more from books. They forget that the real knowledge of the child is measured not by what he learns in text books and sees in the school

room, but by actual knowledge of objects and happenings within the realm of his own world about him.

A meeting of parents may be held where the value of excursions may be discussed. Reasons for such trips may be presented and illustrations shown setting forth their educational significance. Parents may be invited to go on these excursions and thus form the habit of visiting places with their children.

### **The Equipments That are Thought Necessary to the Teaching of Geography as Compared With Those of Former Years.**

It was but a short time ago when one text, a few maps, some charts and a globe, were deemed quite sufficient to teach geography adequately. The up-to-date teacher should specialize in this subject at a school in this country noted for research in this particular branch, and then in Germany if possible.

Since geography is not considered a study of books today any more than botany or zoology, the teacher who has had the advantage of travel in her own country and foreign lands will be able to make objects seen, and places visited, far more vivid and real to the pupils' imagination, than one who has studied, no matter how widely, only from texts.

In these days of rapid transit, it is not at all unusual to find that pupils have traveled much more than the teacher, and unless she has had some experience in that line she will be placed at a decided disadvantage.

It is to her advantage, then, to travel not only on the steam and surface cars, but to have actual experience on elevated and subway lines, to ride on the sight-seeing cars, the touring automobiles, the ocean liners, and the motor boats.

If she travels intelligently and with the thought of instruction in mind, she may gather information that will be of interest when she visits the world's fair, the city park, the art institute, the Field's museum, the aquarium, the life-saving station, the light-house, the circus, a city fire department and other places of interest.

From the manufactory or the mine she may obtain specimens which will interest her pupils intensely.

There should be:

1. A department in the library devoted to the latest and best authorities, in addition to texts always to be found on the teacher's desk.

2. A laboratory in which the pupils may work individually.

3. Pictures, large and small, of all kinds, to illustrate the work, procured by the teacher herself who never traveled kodakless, and postals gathered in her wanderings as well as illustrations obtained from dealers and railroads.

4. Illustrations not only of the typical mountain studied intensively by the class, but others for the sake of contrast.

The same is true of a river, a city, a section of coast line and a valley.

5. A stereopticon with an endless number of pictures.

6. A sand table of such size that many may work simultaneously, and the individual sand pan.

7. Physical and political maps, the finest obtainable, relief maps which are the work of experts, and outline maps ready to be filled in by the pupils.

8. Globes of the most approved kind.

9. A planetarium showing the earth's revolutions around the sun.

10. A tellurium showing the change of seasons.

11. Minerals carefully collected, which remain permanently in the teacher's cabinet.

12. The common rocks of the community.

13. Weather maps.

14. Objects of all kinds having an educative value.

One enthusiastic teacher borrowed a large and costly collection of jewels owned by an acquaintance.

Fac similes of some of the world's famous stones may be borrowed from some jeweler, and prove very instructive.

15. Commercial products in their various stages of manufacture.

16. All kinds of grain in their successive stages of growth.

17. Cross sections of woods showing the different grains.

18. Costumes and utensils used by foreign people.

19. A natural science cabinet full of interesting information that will suggest charts that may be made by the pupils themselves, and may prove even more interesting than manufactured ones.

20. A set for each pupil, of material published by the best steamship lines, to be used when tracing an ocean voyage.

21. Guide books to a few of the most important and interesting cities.

22. Several geographical games.

### **Commercial Geography.**

The study of commercial geography is essential to the pupil because industrial rivalry and commercial competition are potent factors among civilized nations.

Commercial life deals with agriculture, manufacturing, mining and commerce. It is not essential that the pupil

should know the dry facts of commerce, but it is necessary that he have knowledge of the comparative commercial importance of leading countries, their interrelation, and the reasons for this, so far as geography bears upon the subject.

He should also understand the subject of domestic and foreign transportation as it is carried on both by land and water.

To aid people commercially and to make them more intelligent, government, weather, harbor and topographic maps are sent out by the government. The progressive farmer has the condition of the weather telephoned to him that he may govern himself accordingly.

The eastern railroad lines depend upon these reports to such an extent that they do not start their heavy freights for the west if a severe storm is prophesied.

### **Physical Geography.**

Physical geography should be studied because vital political and commercial geography grow out of and depend upon it.

Boundary lines are of two kinds, natural and artificial, the one permanent, the other temporary, and they have affected the nation's life in separating or failing to separate, peoples.

Physical geography determines largely the animal and vegetable life native to a region.

In studying noted ancient cities it is observed that their location was in fertile regions and that some kind of food grew abundantly in that place.

### **Political Geography.**

The child should study political geography to learn concerning:

1. Boundaries which are artificial and have been established by man's agency.
2. The comparative size of the divisions of a country.
3. The government of a people.
4. The density, the increase and the centers of the population of a country.
5. The nationality which predominates in the entire community or in certain portions of it.

### **Relation of Geography to History.**

The two subjects, geography and history, are so inter-related that it is difficult to separate them. It is impossible to comprehend history without studying its geographical setting, for, owing to influences exerted upon them by the natural features of the country in which they exist, nations have risen or fallen or developed certain typical characteristics.

In the following material given under Reasons for the Supremacy of the United States, the Appalachian Mountains, Cities and Industries, Indian Trails and A Few Points on the Civil War, the geographic influence upon history has been strongly marked.

### **Reasons for the Supremacy of the United States.**

That the United States reigns supreme in the western hemisphere is unquestioned.

What are the reasons for this supremacy?

How came it to be so great a power?

In its practically isolated geographical position may be found the answer to these questions.

Its boundaries on the east and west foster its independence and are preventive of strife with other nations.

On the east its connections with Europe are such that it has been styled the "Maritime doorkeeper."

On the west it is in close communication with the coast of South America; on the south with the Gulf of Mexico, and is recognized as a Caribbean power.

Because of the boundless space contained within its borders, advanced methods of transportation have been evolved, until, whether the typical American rides upon surface, elevated, subway or steam cars, or upon ocean liners or battleships, he is conveyed by the most improved means known to the scientific world.

Its latitude conduces toward a vigor and energy not to be found elsewhere among the inhabitants on the hemisphere. These characteristics of its people, combined with freedom from foreign wars, have given opportunity for development along scientific and industrial lines.

Since there were many large rivers to be spanned, this country invented, experimented and improved until today it stands the acknowledged bridge builder of the world.

How could it be otherwise than the dominating power of the new hemisphere?

From its state of absolute dependence upon the mother country, it became:

1. The most important power in the western hemisphere.
2. An ocean power.
3. A recognized power in the world.

### **The Appalachian Mountains.**

When the first settlers came to America, they located near the shore, and because of the "continental build" of the country, were limited to a certain portion of the land.

The Appalachian mountains formed a barrier which separated them from the middle and western portion of



the United States and consequently they were limited to the "tide water region" of the Atlantic coast. As the inhabitants increased, there was not room for them to expand and the population became denser, which always means strength.

Glacial action in the New England states had left the soil in such condition that much hard work had to be done before the land was ready for tilling.

In consequence of the dense population, the arable land was soon exhausted and of necessity attention was turned to other occupations. Thus from a farming people they became a population of manufacturers and to the present time continue to hold pre-eminence as the manufacturing section of the United States.

Because they were isolated, there was more of community of interest than there would otherwise have been. The geographical conditions, the climate, the soil and the modes of life were so vastly different in England and the colonies that it caused great divergence in their political and social ideas. The distance that lay between them made England's control all the more difficult. If trouble arose between the two nations, it took so long for communication that by the time report reached England and word was returned to America, either the affair had died out completely or rebellion had developed to such a degree that the breach between the two had widened visibly.

### THE MOHAWK GAP.

Had there been no Appalachian barrier, or had this mountain wall been continuous throughout its entire length, it is difficult to foretell how history might have shaped itself.

As it is there are two important breaks in its continuity,

and the history of the famous Mohawk and Cumberland Gaps is of paramount importance in the middle and great West.

The part of the Mohawk Valley, interesting from the historical standpoint, consists of a trench nearly 100 miles long, which is in reality a vast gap 1,500 to 2,000 feet deep, extending from Schenectady to the city of Rome in central New York.

Its presence is due to three causes:

I. Long continued disintegration of a belt of destructible rock.

II. Entrance into this section of an ice sheet, which overrode it.

III. The former drainage of the Great Lakes before their diversion to the present course.

The city of Rome is situated near the watershed between the St. Lawrence and Hudson river systems.

At this place the waters part and those belonging to the St. Lawrence system enter Lake Ontario.

When this gateway was passed the path was clear to the great west, and over it population surged, peopling and possessing the land to the Pacific coast. In early times the balance of trade in the Atlantic region went to Philadelphia, whereas now it goes to New York City.

That New York City and not Philadelphia controls the commerce of the eastern section of the United States today, by means of its harbor, its six railroads and the Erie canal, and has become the metropolis of our country, is due in great measure to the presence of the Mohawk Gap.

#### THE CUMBERLAND GAP.

Where the states of Virginia, North Carolina and Tennessee converge, is found another break, famous in the early history of America. This is called the Cumberland

Gap, and because of its existence a climb of nearly a thousand feet in going over the mountains, is saved.

It is believed by physiographers that the softer shales and limestone were "etched out," leaving harder masses as mountains on either hand.

Through the Cumberland Gap went Daniel Boone, the hunter—yet more than hunter, for he was one of the founders of a new nation, as he and his company blazed a path as famous as the Gap itself, the Wilderness Road.

Over this road a ceaseless procession of men, women and children passed, with their faces turned westward toward new and untrodden fields.

### **A Few Points on the Geography of the Civil War.**

The events of the Civil war are great historic facts, but thoughtful consideration will show that geography played no minor part in this great struggle.

That slavery flourished in the south was due partly to geographical conditions; that it did not flourish in the north was due in part to the same cause.

Mill says, "The Southern coastal plain is chiefly responsible for the grievous affliction of slavery that so long blighted the southern states and poisoned the whole country."

Mountains, rivers, bays, coast line and swamp land, all were prominent features in the war of the Rebellion.

At first thought, mountains may be considered huge barriers to an advancing army, but passes may become the natural highway for troops of warriors. Caves, rocky fastnesses and strongholds may be used to conceal armies and to protect from attack. Movements of the enemy may be clearly seen from their heights and from this vantage ground opportunity may be given for making sudden descents or for beating hasty retreat.

Mountain, valley and pass have had an important bearing not only upon the history of our country, but are said to have figured conspicuously for the past twenty-five years in the British Councils of India.

In the southern mountain life there was no place for the negro, so he worked in the valley, and when war came the mountain sections were opposed to slavery, while the valleys upheld the institution.

Rivers were more effectively used than railroads during the war, because the latter could be torn up and destroyed easily by the enemy's ranks. That these were the routes generally employed for communication, is apparent from the names borne by the Federal troops—"Army of the Potomac," "Army of the James," "Army of the Cumberland," "Army of the Tennessee." It has been said that perhaps in no other war have river routes been so widely used.

In the case of the Mississippi, its peculiar construction is of such nature, that only here and there are found places capable of strong fortification and so the points of attack were of necessity far between. When the city of Memphis was captured, the Mississippi was opened as far as Vicksburg, a distance of four hundred miles, but the latter place, surrounded by bluffs on three sides, long resisted attack and became for some time one of the problems of the war.

The cities on the coast line were often protected from the enemy's attack because they were situated near deep bays or estuaries. Island fortifications and swamp land, also frequently protected from invasion.

### **Cities and Industries.**

The first towns in the United States were situated near rivers because the settlers feared the depredations of the Indians.

The instruction given to the Jamestown settlers was to select a site at the inner end of long, narrow inlets, so that they might be free from the inroads of neighboring colonies, just as some of the cities along the Mediterranean were similarly located with reference to protection from pirates. If a city was situated near a river, it could communicate with the interior and could also carry on trade with the mother country. This was often the determining influence in location. The largest towns thus sprang up where they were situated at a junction between sea and inland, where the harbor was deepest for ships to land and where the most varied avenues of communication were available.

The seaport town grows because it has the best and cheapest mode of transportation—namely, the ocean.

But besides this, it must communicate with a large area of country upon which it depends for its productions.

The presence of water in early days determined the location of many manufacturing cities, but since it has been superseded by steam and electricity this is not so necessary as formerly.

An invigorating climate, that imparts energy and impetus to manufacture, has aided in the rapid development of cities.

When the Revolution ended, cities began to develop along industrial lines, and growth was most rapid where the soil was richest, the geographical conditions most favorable, and the portion of tillable land limited.

In her work on American History and Its Geographic Conditions, Ellen Semple says there are three great areas of the United States in relation to cities:

1. A highly developed industrial area in New England and the middle states.
2. Mississippi Valley area.

### 3. The Great West.

In this age of industrialism, manufacturing centers are becoming more and more prominent.

The factors necessary to build up such centers are:

1. Abundance of material.
2. Fuel.
3. Water-power.
4. Capital.
5. Labor.
6. Varied avenues of communication not only with parts of this country, but also with Europe.

The typical interior American city of today:

1. Collects.
2. Produces.
3. Distributes.

Why does St. Louis have the largest hardware house in the world?

Because it is surrounded by a wide territory of farming, mining and grazing interests, which demand hardware more than any other commodity.

### Indian Trails.

Savage tribes and wild animals have usually sought out good camping grounds and natural highways, long before civilized man has appeared.

In early days the Iroquois made their own in western New York what was considered to be the most commanding military position in the eastern part of North America.

Indian trails have played an important part in the country's history. Of these, two deserve mention, the Oregon and the California. These have been the ones chosen by warriors, or by those conducting expeditions

such as that made by Lewis and Clark, or by the gold seekers going to California.

A locality in and of itself may not be of special interest, but if it is the stage of some historic scene, whose actors have been prominent, unusual importance attaches to it.

A great fact makes a place noted, not the place the fact, but the two are so interwoven as to be incapable of separation. The following topics will serve to illustrate these truths:

### **Forefathers' Rock.**

Why is Forefathers' Rock of such historic interest to all Americans? Is it because of its unusual shape, size or beauty? Had it chanced that the Pilgrim Fathers had landed a little farther up or down the coast or that Mary Allerton had first set foot on some other rock, the name conned by every schoolboy, which name Montgomery says "fills a greater place in American history than any other rock on the continent, for Plymouth Rock is the stepping stone of New England"—would have no fame beyond its immediate locality, and would have been marked by no monument for its preservation.

### **Pike's Peak.**

Pike's Peak, with its wonderful, everchanging lights and shadows, "the historic landmark of the Rockies," a place visited by celebrities of both continents, as it towers in majestic beauty and grandeur far above its sister peaks, is greatly enhanced in interest in our eyes as the career of the man whose name it bears is learned. A huge boulder, erected on the one hundredth anniversary of its discovery, bears this inscription:

"General Pike was born at Lambertton, now Trenton,

New Jersey, January 5, 1779, and died April 27, 1813, after a victorious attack on York, later Toronto, Canada; aged 34 years, 3 months, and 22 days. Buried at Madison Barrack, New York." On another side of the boulder is chiseled, "General Pike enlisted as a cadet in his father's regiment in 1794 at the age of fifteen years. Appointed ensign in 2d infantry, March 3, 1799; 1st lieutenant, April 24, 1800; transferred to 1st infantry, April, 1802; promoted to captain August 12, 1806; to major May 3, 1808; to lieutenant-colonel July 6, 1812; to brigadier-general March 12, 1813." On still another side is found, "Zebulon Montgomery Pike first saw the peak that bears his name November 15, 1806. On November 27th he abandoned his attempt to ascend to its summit."

In a prominent place in the city stands a life-sized statue of the man whose name has been perpetuated. His youthful, enthusiastic face and figure have spoken louder than words to thousands of tourists who have viewed them.

His right hand is extended as though pointing toward the goal he fain would have reached, but of which he said, "I believe no human being could have ascended to its pinnacle."

In the left hand he bears hat and sabre, and his whole attitude, every lineament of his face, each fold of drapery, all the lines of his body, speak to the beholder and urge him onward and upward as with spirited strides the soldier seems to be pressing on from crag to crag to reach lofty heights.

### **Tarry-Town-on-the-Hudson.**

Beautiful Tarry-Town on the Hudson is perhaps no more charming than many another city found along its far-famed banks.



But Sleepy Hollow, the old Dutch Church and the Spring are all classic because of the spirit of the man whose home, far from the cities' turmoil and strife, was beside the shores of this river; a man whose tales have made this spot forever famous and whose memory the inhabitants revere to this day as they show the house where Washington Irving lived, the tablet erected to his memory in the church, the pew which he occupied and the simple stone marking his resting place, and tell of the unusual honors which were showered upon him, and the rare virtues which made him beloved not only as a famous writer but as a humane and kindly man.

### **Cheyenne Mountain.**

Cheyenne Mountain was distinguished in no particular way from the group of peaks among which it stands, until immortalized as the favorite haunt of Helen Hunt Jackson, who, within sound of the music of the Seven Falls, wrought out chapter by chapter that fascinating story of Indian wrongs—Ramona.

In this same mountain her sacred dust reposed, her resting-place marked only by the heap of stones gathered from the mountain side, until her grave was so desecrated by enthusiastic admirers that her remains were of necessity removed to its final resting-place in the cemetery.

### **A Great School.**

A town may be small, uninteresting and lacking in many of the natural resources that render it attractive, yet if it be the seat of a great school, whether academy, normal school, college or university, it becomes a notable place and lives forever in the hearts of thousands who

have gathered inspiration within its walls and upon whom its influence has been shed.

The authorities consulted were:

American History and Its Geographic Conditions—  
Ellen Churchill Semple.

Geographic Influences in American History—Albert P.  
Brigham.

Special Method in History—Charles A. McMurry.

## CHAPTER XXI.

**QUESTIONS ON GEOGRAPHY.**

1. What does the study of geography include?
2. In what grade should it first be taught?
3. What may be made its basis?
4. Where may helpful suggestions for these preparatory steps be found?
5. How long should oral lessons be given?
6. What is the difference between nature study and geography?
7. Should a series of lessons be given in the text before the child is ready for the book?
8. When begin the study of the geographical text?
9. Should the child read the beginning lessons in the recitation period?
10. How may physiography be made a basis for the study of a country?
11. What subjects may be correlated with geography?
12. How would you correlate in studying a subject like cotton?
13. What studies give the child a better understanding of geography?
14. What subjects depend upon geography for a better understanding?
15. What is the educational value of the subject of geography?
16. Can "culture value" be gained from geography?
17. Should it be a memory study?
18. Should it be a study of relations, causes and effects?

19. Should it be made an inductive or deductive study?
20. Should geographical forms be developed before the text is studied?
21. What forms may be taught?
22. How may further investigation be stimulated?
23. Should lessons be assigned in the order of the text?
24. Who should formulate the definitions in geography?
25. In which part of geography would the most definitions be found?
26. What is meant by the spiral system in geography?
27. What part does the dictionary play in the study of geography?
28. Of what value is the encyclopedia in this branch of study?
29. What place do periodicals occupy in this subject?
30. What periodicals are helpful in this study?
31. Why does the teacher of geography consider it necessary to keep posted on current events?
32. Where may historical and literary geographical references for outside reading be found?
33. What relation does astronomy bear to geography?
34. Where are the largest observatories in the United States located?
35. Where are observatories found in the state?
36. What are the equipments necessary for an observatory?
37. What use could be made of the astronomical telescope in connection with geography?
38. Of what value are objects in this study?
39. What are the difficult subjects in geography?
40. What are good texts in geography?
41. What is meant by types?
42. What geographies make a feature of types?

43. What peak would you select for a typical study of mountains?
44. What valley?
45. What river?
46. What coast?
47. What prairie?
48. What is chalk modeling?
49. Of what value is it?
50. In what grades may it be used?
51. Does it lead to misconceptions in regard to heights and depths?
52. What is the best text on chalk modeling?
53. Of what value is the sand table?
54. For what may it be used?
55. For what may sand pans be used?
56. What are the comparative advantages of sand table and sand pans?
57. What is the cost of the sand pan?
58. In what grade should the child begin to draw maps?
59. What ones should he draw in the beginning work?
60. Of what different materials may maps be made by pupils?
61. In what grades may dissected maps be used to advantage?
62. In what grades may products be located on stencil maps?
63. What is a weather record?
64. Where may they be found?
65. How may they be kept?
66. Of what value to the child are excursions?
67. Of what value are they to the teacher?
68. Where may they be taken?
69. What should be the teacher's preparation for the event?

70. How may definite results be obtained?
71. What do pupils need for the excursion?
72. For what may these trips be made the basis?
73. Of what should the recitation following the trip consist?
74. Why are such trips criticised?
75. How may these objections be overcome?
76. What are good references on the subject of excursions?
77. Should any subject be eliminated from the study of geography?
78. If so, what?
79. Should the child memorize the capitals of states?
80. What intellectual equipment was considered necessary years ago for a teacher in geography?
81. What is deemed necessary for the specialist today?
82. What equipment in the line of apparatus was formerly deemed essential?
83. What are the demands for apparatus today?
84. How may this equipment be obtained?
85. How may a volcano be represented?
86. Where may a county map be obtained?
87. Why is not the study of geography a "fixed" study?
88. Of what value is commercial geography?
89. What is the prominence of this subject today?
90. Why should physical geography be studied?
91. Why should political geography be studied?
92. What is the relation of history to geography?
93. What effect has isolation upon a country?
94. What effect has its isolated position upon the United States?
95. What bearing upon its supremacy has the geographical position of the United States?

96. What effect did its long distances have upon inventions in modes of conveyance?
97. What rank has it attained in bridge construction?
98. After separating from the mother country, to what prominence did it attain?
99. Of what rank is it today?
100. What influence had the Appalachian mountains upon the history of the United States?
101. What effect had the Mohawk Gap upon settlement west of the Appalachians?
102. What city owes its prominence to the Mohawk Gap?
103. What effect had the Cumberland Gap upon western settlement?
104. Why did slavery flourish in the South?
105. What part did mountains play in the history of the Civil war?
106. Of what service were rivers at this time?
107. What shows this?
108. Where were the first towns founded in the United States?
109. What instruction was given to the Jamestown settlers?
110. Why?
111. What factors determine the location of cities?
112. Where did the largest towns spring up?
113. What advantages does a city situated near a river possess?
114. Why does the seaport town grow?
115. How does an invigorating climate influence in the location of a town?
116. What factors are necessary in building up the industrial city?
117. For what is the typical interior city of today a point?

118. Why does St. Louis have the largest hardware house in the world?
119. What are the three great city areas of the United States?
120. What effect did the Indian trails have upon the history of the country?
121. What is the relation between place and event?
122. Why is Forefathers' Rock so noted?
123. What makes Pike's Peak interesting from the standpoint of history as well as geography?
124. Why is Tarry-Town-on-the-Hudson of interest?
125. What makes Cheyenne mountain especially interesting?
126. Why is the town or city containing a great school of interest?
127. What bearing has the intellectual atmosphere of the home upon the child's geographical knowledge?
128. How was this atmosphere created?
129. Can the concentrated study obtained from the child in mathematics be exacted from him in geography?
130. Can the same degree of mental discipline be obtained from the study of geography as from mathematics?
131. What is the most valuable thing to be gained from the study of geography?
132. What periodical is most helpful to the teacher of this branch?
133. Where may lantern slides suitable for geographical use be obtained?
134. When is the best period for the geography recitation?
135. What devices are there in the study of geography?



## CHAPTER XXII.

**OUTLINE FOR THE STUDY OF GEOGRAPHICAL  
TEXTS.****V. Preface.**

- a. Number of pages?
- b. Comparative length?
- c. Main heads?
- d. Are they definitely brought out in blacker type?
- e. Comprehensive?
- f. Does it state the author's plan in the arrangement of material?
- g. Does it give his reasons for such arrangement?
- h. Does it contain acknowledgment of aid?
- i. Does it contain names of critics?

**VI. Introduction.**

1. Number of pages?
2. Comparative length?
3. Acknowledgment of aid?
4. Names of critics?

**VII. Contents.**

1. Length?
2. Number of lessons?
3. Divided into parts?
4. What are the principal heads?
5. Does it contain only main heads?
6. Does it contain details?
7. Is there logical sequence of thought?

**VIII. Suggestions to Teachers.**

1. Where found?

2. Is the number sufficient?
3. Are they helpful?

**IX. Material.**

1. Inductive?
2. Deductive?
3. Composed of statements to be memorized?
4. Is the child led to reason, compare and generalize for himself?
5. Arrangement
  - a. Logical?
  - b. Illogical?
  - c. Topical?
  - d. Spiral?
6. Attractive?
7. Conversational narrative?
8. Up to date. Does it contain knowledge of our recent possessions?
9. Is it true to the instincts of childhood?
10. Does it stimulate to further investigation?
11. Difficult?
12. Too difficult?
13. Not sufficiently difficult?

**X. Division into Lessons.**

1. Well divided?
2. Poorly divided?
3. Practically no division made?

**XI. Grading of Lessons.**

1. Well graded?
2. Poorly graded?

**XII. Reviews.**

1. Comparative number?
2. How often found?
3. Do they contain important features?
4. Do they contain non-important details?

5. Material presented as in previous lessons?
6. New view of an old subject?
7. Good?
8. Poor?

**XIII. Summaries.**

1. Comparative number?
2. Contain essentials?
3. Contain non-essentials?

**XIV. Questions.**

1. Comparative number?
2. Testing?
3. Provocative of thought?
4. Logical sequence?
5. Where found?
6. On map?
7. On text?
8. Which predominate?

**XV. Explanations.**

1. Comparative number?
2. Lengthy?
3. Short?
4. Clear?
5. Confusing?
6. Adequate?

**XVI. Definitions.**

1. Comparative number?
2. Lengthy?
3. Concisely worded?
4. Printed in italics?
5. Printed in blacker type?
6. How reached
  - Inductively?
  - Deductively?
7. In which part of the book do they predominate?

**XVII. Suggestions to Pupils.**

1. Comparative number?
2. Helpful?
3. Where found?

**XVIII. Foot-notes?**

**XIX. Illustrations.**

1. Quality?
2. Half-tone?
3. Educative?
4. Printed clearly?
5. Attractive?
6. Colored?
7. Of modern life?
8. Number as compared with maps, charts and diagrams?
9. Especially prepared for the text?
10. From what source obtained?

**XX. Charts.**

1. Sufficient number?
2. Good?
3. Poor?

**XXI. Maps.**

1. How many kinds are there?
2. Large?
3. Small?
4. Contain only essentials?
5. Details?
6. Clearly printed?
7. Do they show U. S. dependencies?
8. List of maps?
9. Suggestions for map drawing?
10. Artistic?
11. Are they well paged?

**XXII. Diagrams.**

1. Number?
2. Of what nature?

**XXIII. Pronunciation of difficult words.**

1. Number of pages?
2. Important words?
3. Adequate number?

**XXIV. Authorities for pronunciation quoted?****XXV. Size of print.**

1. Large?
2. Small?
3. Is there difference in type?

**XXVI. Collateral reading.**

1. Number of pages?
2. Divided into subjects?
3. Refer to lessons or sections?
4. Where found?

**XXVII. Appendix.**

1. Number of pages?
2. Contents?
3. Unusual features?

**XXVIII. Reference tables.**

1. Space given?
2. Adequate?

**XXIX. Tables of Statistics.**

1. Number?
2. Where found?

**XXX. Special Study of Iowa.**

1. Text?
2. Maps?

**XXXI. Index.**

1. Number of pages?
2. Alphabetically arranged?

- XXXII.** Unusual features of book?
- XXXIII.** For what age?
- XXXIV.** For what grade?
- XXXV.** Favorable criticisms?
- XXXVI.** Unfavorable criticisms?
- XXXVII.** Problems before the teacher?
- XXXVIII.** Psychological aspect of text?

## CHAPTER XXIII.

**REVIEW QUESTIONS ON GEOGRAPHICAL TEXTS  
EXAMINED.**

1. Which book is the most convenient shape?
2. Which is the oldest?
3. Which is the most recent?
4. Which has the longest preface?
5. Which the shortest?
6. Which contains the best preface?
7. Which texts have been criticised by geographical experts?
8. Which make acknowledgments?
9. Which author welcomes suggestions and criticisms?
10. Which contains the best table of contents?
11. Which has the principal heads of the table of contents brought out in blacker type?
12. Which has the principal heads of minor topics in blacker type?
13. Which contains the best aids for teachers?
14. Which are inductive in their plan?
15. Which deductive?
16. Which are constructed upon the topical plan?
17. Which upon the spiral?
18. Which is based upon modern pedagogical theories?
19. In which is man the central thought?
20. Which emphasizes the causal notion in teaching geography?
21. Which has prepared material along the lines recommended by the committee of fifteen?

22. Which emphasize types?
23. Which emphasize commercial geography?
24. Which presents material in a conversational form?
25. Which strive to incite the pupil to outside study?
26. Which contains the best treatment of our foreign possessions?
27. Which has foreign possessions in the front of the text?
28. Which uses the term "Eurasia?"
29. Which has the material most logically arranged?
30. Which is the most difficult text?
31. Which is too difficult?
32. Which has the lessons well divided?
33. Poorly divided?
34. Which makes no division into lessons?
35. Which has the lessons well graded?
36. Poorly graded?
37. Which has the best reviews?
38. Which has the best review of North America?
39. Which has a review of the United States as compared with other countries?
40. Which has a comparison of the continents?
41. Which have summaries?
42. Which has the best summary?
43. Which contains many questions?
44. Which comparatively few?
45. Which has testing questions?
46. Which have those provocative of thought?
47. In which are there the best questions?
48. In which do questions on the text predominate?
49. On the maps?
50. Which has the best explanations?
51. In which are the definitions set off separately by themselves?



52. In which are they merely a part of the fund of information?
53. Which has the entire definition in blacker type?
54. Which has simply the principal word of the definition in blacker type?
55. Which has the best definitions?
56. Which has the best suggestions to pupils?
57. Which has foot notes?
58. Which has the best illustrations?
59. The least attractive?
60. Which have the half-tone illustrations?
61. Which seem the most up-to-date?
62. Which has the largest number of modern illustrations?
63. In which are they prepared especially for the text?
64. In which are pictures of animals placed upon the map in the section of the country where they habitate?
65. In which is there a grouping of pictures of the same kind, e. g., mountains?
66. Which contain illustrations of lighthouses and the range of the visibility of lights?
67. Which has highly colored illustrations?
68. Which contains an illustration of the compass?
69. In which is a diagram of the cotton-gin?
70. Which has a view of the stars through the telescope?
71. Which has the best charts?
72. Which has the best physical maps?
73. Which the best political?
74. Which the best commercial?
75. Which the best relief?
76. Which has a key to the relief maps?
77. In which are drawings which have passed under an expert in cartography?

78. In which are the maps indicated as political, physical, commercial and relief?
79. Which has the least attractive political maps?
80. Which the least attractive physical maps?
81. Which the least attractive relief maps?
82. Which contains the best list of maps?
83. Which has the best directions for map drawing?
84. Which has the largest maps?
85. Which the smallest?
86. Which contain many details?
87. Which few details?
88. Which has maps in the body of the text containing
89. Which maps have the names of cities printed according to the population?
90. Which have a state included for comparative area?
91. In which are the maps well paged?
92. Which has a page containing maps of all the dependencies of the United States?
93. Of the most important steamship lines?
94. Which have a commercial map of the world?
95. Which contains enlarged maps of harbors?
96. In which maps are land heights and water depths shown?
97. Whose imprint on maps corresponds to the sterling mark on silver?
98. Which has the best diagrams?
99. Which have a weather record?
100. Which quote authorities for pronunciation?
101. Which has the best pronouncing vocabulary?
102. Which has the best print?
103. Which has practically uniform type throughout?
104. Which has the best paper?

105. Which have collateral reading in a section by itself?
106. Which have collateral reading at the close of the chapters?
107. Which has the best collateral reading?
108. Which texts include an appendix?
109. Which elementary texts do not include an appendix?
110. Which has the best appendix?
111. Which have reference tables?
112. Which include a special study of Iowa?
113. Which has the best treatment of the geography of Iowa?
114. Which books have manuals?
115. Which have the cross index?
116. Which has important topics very fully worked out in the index?
117. Which has the best index?
118. Which would you enjoy teaching most?
119. Which least?

## CHAPTER XXIV.

**PROBLEMS WHICH CONFRONT THE TEACHER OF GEOGRAPHY.**

1. To see in the beginning work that the pupil gets the thought from the printed page.
2. To teach thoroughly home geography.
3. To teach the young pupil only what he can understand and postpone more difficult points till later in the course.
4. To give him the experiences upon which all geography is based.
5. To enlarge his experience and give him an idea of things outside his own locality.
6. To cause him to see the relation of geography to human life and comfort.
7. To keep in view the leading or important facts.
8. How best to teach the difficult subjects in geography.
9. To increase the pupil's power to reason and think.
10. To lead him to see the relation between physical features and political divisions.
11. To teach him to use good judgment in drawing conclusions.
12. To teach him to draw logical conclusions.
13. To make vivid descriptions.
14. To make clear explanations.
15. To produce accurate, definite, individual notions.
16. To aid the pupil in understanding definitions.
17. To enable him to interpret definitions in terms of his own experience.

18. To assist him in formulating definitions.
19. To know what old ideas to recall as foundation for new knowledge.
20. To cause the pupil to see the relation between old and new topics.
21. To give him a realization of the value of things.
22. To help him to gain correct ideas from illustrations.
23. To lead him to understand the use and value of maps.
24. To lead him to see quickly the essential points on a map.
25. To teach him to draw maps well.
26. To lead him to recognize the familiar in pictures or lessons.
27. To teach chalk modeling so that the pupil will use blackboard illustration freely.
28. How to stimulate to further investigation.
29. To urge the pupil to search for historical and literary references.
30. To teach him to be observant of articles that appear in periodicals relative to geography.
31. To teach the use of the encyclopedia and dictionary in connection with the subject.
32. To interest the pupil in taking such possible excursions as will be helpful in geographical work.
33. How to conduct an excursion successfully.
34. How to obtain definite results from an excursion.
35. How to overcome objections to them.
36. How to use the sand table and sand pans to advantage.
37. How to correlate other subjects with geography in a judicious manner.
38. How to make the correlation between History and Geography especially strong.
39. In what order to assign lessons.

40. To gather material of all kinds that will make the study of geography as broad as possible.
41. How to procure material for a cabinet.
42. How to use this material to the best advantage.
43. To learn where to obtain helps.

## PART V. HISTORY.

---

### CHAPTER XXV.

#### Questions on McMurry's Special Method in History.

1. What is the educational value of history?
2. At what age would it be psychological to suppose that a child would be interested in history?
3. Before the serious study of history is attempted, what is the first historical direction the child's mind takes?
4. What seven exclusions would the author make for grammar grade history?
5. What are the reasons for each exclusion?
6. What subjects are better understood through the study of history?
7. What epochs have marked attractiveness for young people?
8. Which topics show continuous development?
9. What four reasons are given why American history has an educative value?
10. What place should be given to the study of European as compared with American history?
11. What epochs of European history should be studied?
12. What characters of European history who have taught the world commanding lessons should be studied?
13. Why should the pupil study biography?

14. What biographies should he study?
15. What biographies should be selected which sum up important political events?
16. How may all the important events of an entire period be brought out through the study of one man's life?
17. What life would you select for such study?
18. Why is unusually rich material in the way of biographies found in our nation?
19. What studies preparatory to history should be taught in the three Primary grades?

#### **Fourth and Fifth Grades.**

20. In what grades should the regular course in history begin?
21. What two considerations should control in selecting material for study?
22. What background should be kept clearly in mind?
23. What portion of history is best suited to beginners?
24. Why?
25. What two limits should be observed in selecting stories for these grades?
26. How does the pioneer history of our country compare with that of other countries?
27. Has pioneer life in this country ended?
28. What are four reasons why children should not be left to themselves in selecting history stories?
29. How should history stories be presented in the fourth and fifth grades?
30. What should be taken into consideration when choosing a story?
31. What are the advantages of the oral treatment of the story?



32. What qualities does the teacher employ in presenting the story?
33. Of what value is a vivid imagination in the teaching of history?
34. How can a pupil be made to re-live the past?
35. Why is it of value in story telling to know the experiences through which the town in general and pupils in particular have passed?
36. Into what should the story be divided?
37. How should they be arranged?
38. Why ask pupils questions during the presentation?
39. Why stimulate pupils to question?
40. Why should the pupil reproduce the story?
41. How many reproductions should there be?
42. What will the reproduction show?
43. What should the presentation of the story cultivate in the pupil?
44. What should be the teacher's attitude during the reproduction work?
45. What may the teacher find it necessary to do after the reproduction?
46. Why should an outline of the main topics of the story be placed upon the board as the story progresses?
47. Why should outlines of stories presented be kept by the pupil? What use should be made of the blank-book work here?
48. How teach the moral lessons to be gained from the story?
49. Is the moral benefit of a proper teaching of these materials clear and positive?
50. Should a story be repeated in successive grades?
51. What aids may be employed to enhance the presentation of the story?

52. What stories may be told in the fourth and fifth grades?
53. In the sixth grade?
54. In the seventh grade?
55. In the eighth grade?
56. What is meant by the pivotal points in a story?
57. What are six difficulties which confront the teacher in presenting the story?
58. What is the reason for each difficulty presented?
59. What is meant by a problem in history?
60. Of what value are these problems to the pupil?
61. What is meant by the theorizing activity?
62. What is the comparison between the problems in arithmetic and those in history?
63. How does the mental discipline gained by history compare with that gained by mathematics?
64. What is the teacher's part in connection with history problems?
65. What part does geography play in the presentation of a story?
66. Of what value are comparisons in history?
67. What comparisons may be drawn?
68. What men's lives may be profitably compared?

### **Sixth Grade.**

69. What topics should be considered in the sixth grade in history?
70. Why?
71. What six reasons are given why the topics selected for the sixth grade are not too difficult for the pupil?
72. What is the epitome method?
73. Why does the author condemn it?
74. What should be substituted for it?

75. What lives are worthy of descriptive and dramatic treatment?
76. Why should a life like that of Benjamin Franklin be fully taught?
77. How should such a biography be treated?
78. What leading topics from the lives of the common people should be studied?
79. How may a biography of some leading man of the times be worked out from the historical standpoint?
80. Why should chronological and causal sequence be observed?
81. What topics may be so treated?
82. What is meant by source materials?
83. Where may they be found?
84. When should the pupil begin to acquire the ability to study different texts and look up references?
85. What may prove the ruin of history teaching?

### **Seventh Grade.**

87. What topics should the seventh grade pupil study?
88. Why?
89. Why does care need to be exercised in dealing with the subject of the reformation?
90. In what country should Puritanism be studied?
91. Why?
92. In what country should the French be studied?
93. What is meant by discussing a few important topics with a wealth of detail?
94. What texts are helpful in presenting a few important topics and clothing them with a wealth of detail?
95. What is meant by the teacher's being both a philosopher and a poet?

96. Why is Burke's Conciliation speech helpful in the work for this grade?

**Eighth Grade.**

97. What is the theme of eighth grade history?
98. What topics bring out this theme?
99. Why is each of these topics particularly interesting?
100. What topics have dramatic and picturesque phases?
101. Should events in history be studied as separate facts?
102. In its broadest sense what is history?
103. Which topics have a continuous, chronological and causal sequence?
104. Which topics may be especially interesting in this grade if studied comparatively?
105. Upon what typical biographies may a large share of eighth grade work be based?
106. Why might a study of the biographies of inventors be interesting at this point?
107. What biographies of inventors and scientific men may be studied with interest?
108. Why study the lives of benefactors?
109. What benefactors should be studied?
110. What must be the intellectual equipment of the successful teacher of history?
111. What historical material besides that which is printed does the Committee of Seven recommend?
112. How may geography be correlated with history?
113. How may literature be correlated with it?
114. How may natural science be correlated with it?
115. What bearing has manual training upon the teaching of history?
116. What bearing has drawing upon the teaching of history?

117. How may historical paintings have a distinct educational value in this subject?
118. When may the pupil begin supplementary reading?
119. What points of defense are given for the author's course of study?
120. What are the seven reasons given for making American history the chief basis and backbone of each grade from the fourth year on?
121. What are the six reasons given for including European history in the course?
122. What seven reasons are given for the re-enforcement of history through choice readings from American and European literature?
123. Why should the pupil not be taught myths?
124. What scenes in history may be dramatized?
125. What problems confront the teacher of history?

CHAPTER XXVI.

**OUTLINE FOR THE STUDY OF HISTORY TEXTS IN  
THE GRADES.**

**V. Preface.**

- a. Number of pages?
- b. Comparative length?
- c. Main heads?
- d. Are they definitely brought out?
- e. Comprehensive?
- f. Does it state the purpose for which the book was written?
- g. Does it contain acknowledgment of permission to publish?
  - a. Where found?
    1. Preface?
    2. Close of selection?

**VI. Introduction.**

- a. Comparative length?

**VII. Contents.**

- a. Number of selections?
- b. Title of selection included?
- c. Page where found?
- d. Arrangement
  1. According to page?
  2. Topical?

**VIII. Hints for Teachers.**

- a. Where found?
- b. Helpful?
- c. Sufficient number?

**IX. Material of Text.****A. Norse Stories—**

What stories are related in this text concerning:

- a. Myths?
- b. A search?
- c. A wooing?
- d. A struggle?
- e. A journey?
- f. A death?
- g. A punishment?

**B. *The Story of the Chosen People—***

What is recorded in this history concerning:

- a. The creation?
- b. Forbidden fruit?
- c. A murder?
- d. A birth?
- e. A death?
- f. Dreams?
- g. Prophecies?
- h. A conquest?
- i. A siege?
- j. A defeat?
- k. A deluge?
- l. A sacrifice?
- m. The plagues?
- n. The Red sea?
- o. The walls of Jericho?
- p. A wonderful friendship?
- q. Seven kings of Israel?
- r. The ark?
- s. Miracles?
- t. The life of David?
- u. Several prominent biblical characters?
- v. The captivity of Israel?

w. The destruction of Jerusalem?

C. *The Story of the Greeks—*

What is recorded in this history concerning:

- a. Lessons of perseverance?
- b. Of courage?
- c. Of patriotism?
- d. Of virtue?
- e. Two notable characters?
- f. Wars?
- g. Laws?
- h. Games?
- i. Tyrants?
- j. A blind poet?
- k. A noted orator?
- l. Deaths?
- m. Defeats?
- n. Retreats?
- o. Conquests?
- p. A noted friendship between two men?
- q. The Gordian knot?
- r. A king and his steed?
- s. A Spartan boy?
- t. Thermopylae?
- u. Which of these stories have become classics?

D. *The Story of the Romans—*

What is recorded in this history concerning:

- a. The founding of Rome?
- b. Sieges?
- c. Battles?
- d. A defeat?
- e. Conquests?
- f. Destructions?
- g. Triumphs?
- h. A revolt?



- i. A conspiracy?
- j. Strange signs?
- k. Oracles?
- l. Prophecy?
- m. Deaths?
- n. Cruel emperors?
- o. Kings?
- p. A queen?
- q. A noted friendship existing between a man and a woman?
- r. The life of one of the wonderful men of the world?
- s. An inventor?
- t. A famous river crossed?
- u. One man who kept an army at bay?
- v. Which of these stories have become classics?

*E. The Story of the English—*

What is recorded in this history concerning:

- a. A revolt?
- b. Wars?
- c. Conquests?
- d. Field of the Cloth of Gold?
- e. Deaths?
- f. Murders?
- g. A noted plot?
- h. A terrible massacre?
- i. Queens?
- j. A tiny queen?
- k. Queen Victoria?
- l. The Elizabethan age?
- m. Two pretenders?
- n. Kings?
- o. A boy king?
- p. A prince?

- q. A king's wives?
- r. A king and cakes?
- s. A king and a spider?
- t. The age of chivalry?
- u. A coronation stone?
- v. Parliament?
- w. Adventures?
- x. A faithful minstrel?
- y. What particular period in English history is covered by this text?
- z. Which of these stories have become classics?

*F. Story of the Thirteen Colonies—*

- a. Of what period in our country's existence does this history treat?

What is recorded in this history concerning:

- b. The beginning of our country?
- c. Incidents in the life of a great discoverer?
- d. A noted ship?
- e. A noted rock?
- f. A religious sect?
- g. Wars?
- h. Sea fights?
- i. A rebellion?
- j. A defeat?
- k. Surrenders?
- l. Incidents in the life of our first president?
- m. A famous tree?
- n. A tax?
- o. A tea party?
- p. A noted declaration?
- q. A winter of suffering?
- r. A traitor?
- s. A swamp fox?
- t. A spy?

G. *The Story of the Great Republic—*

- a. What period in our history does it cover?

What is recorded in this history concerning:

- b. The Constitution?  
 c. Our first President?  
 d. Some of the remarkable inventions of this period?  
     1. What was the effect of each upon the country?  
 e. The Star Spangled Banner?  
 f. Land bought by the United States at this time?  
 g. Riots?  
 h. Raids?  
 i. A noted raid?  
 j. Wars?  
 k. A noted statesman?  
 l. California at this period?  
 m. World's fairs?  
 n. Our first martyred President?  
 o. Another martyred President?  
 p. An underground railway?  
 q. The establishment of communication between the United States and Europe at this time?

H. *Names of the Sovereigns of Europe in rhyme?*

I. *Genealogical Table of English Sovereigns?*

J. *Names of the Presidents of the United States in rhyme?*

K. *Notes on Norse Mythology?*

L. *Arrangement.*

1. Are subjects grouped because of the relation of thought?  
 2. Have the most interesting topics of a nation's history been selected?

3. Are they selections which will aid the pupil in the interpretation of his own life?
4. How nearly is the material brought down to date?

**X. Explanatory Notes.**

- a. Comparative number?
- b. Lengthy?
- c. Clear?
- d. Confusing?
- e. In different type?
- f. On obscure passages?
- g. Allusions to similar passages?
- h. Section to which notes refer carefully indicated?
- i. Poems included to throw light upon the text?

**XI. Illustrations.**

- a. List of illustrations?
  1. Comparative length?
  2. Well paged?
- b. Number?
- c. Quality?
  1. Fine?
  2. Medium?
  3. Poor?
- d. Educative?
- e. Reproductions of famous masterpieces?
- f. Artist's name mentioned?
- g. Historical?
- h. Where found?
  1. On title page?
  2. At beginning of article?
  3. Interspersed through text?
- i. Head pieces?
  1. Number?

2. Quality?
- j. Tail pieces?
  1. Number?
  2. Quality?

**XII. Maps.**

- a. Of what localities found?
- b. Comparative number?
- c. Comparative size?
- d. Contain only essentials?
- e. Contain details?
- f. Clearly printed?
- g. List of maps?
- h. Artistic?
- i. Colored?
- j. Uncolored?
- k. Enlarged maps of cities?
- l. Well paged?

**XIII. Division into Subjects.**

- a. Well divided?
- b. Poorly divided?

**XIV. Grading of Subjects.**

- a. Well graded?
- b. Poorly graded?
- c. No attempt at gradation?

**XV. Degree of Difficulty.**

- a. Sufficiently difficult?
- b. Too difficult?
- c. Not difficult enough?

**XVI. Print.**

- a. Size?
  1. Large?
  2. Small?
  3. Clear?

4. Attractive?
5. Marked difference in type?

**XVII. Quality of Paper.**

- a. Fine?
- b. Medium?
- c. Poor?

**XVIII. Index.**

- a. Number of pages?
- b. Alphabetically arranged?
- c. Combined with pronouncing vocabulary?
- d. Concise explanation included with word?
- e. A few words indicative of what the nature of the reference may be?
- f. Important subjects worked out fully?

**XIX. Reference books.**

- a. Number of pages?
- b. Divided into heads?

XX. For what age?

XXI. For what grade?

XXII. Favorable criticisms?

XXIII. Unfavorable criticisms?

XXIV. Problems before the teacher?

XXV. Psychological aspect of history?

## CHAPTER XXVII.

**REVIEW QUESTIONS ON HISTORY TEXTS  
EXAMINED.**

1. Which has the most artistic cover?
2. Which is the most typical of the age and the subject treated?
3. Which has the longest preface?
4. Which the shortest?
5. Which, in your judgment, is best?
6. Which contain acknowledgment of permission to publish?
7. Which has an introduction?
8. Which has the longest table of contents?
9. Which the shortest?
10. In which are subjects having relation in thought grouped?
11. Which have hints for teachers?
12. Which has the best?
13. Which contain classics?
14. Which has the most?
15. What subjects are found all through most of the texts?
16. What are the names of ten noted men found in these histories?
17. What ten of the most famous battles are recorded here?
18. What six victories?
19. What triumphs?
20. What six defeats?

21. What surrenders?
22. What ten noted generals are mentioned here?
23. What naval battles?
24. What traitors?
25. What six noted kings?
26. What six noted queens?
27. What instances of perseverance are found here?
28. Of courage?
29. Of patriotism?
30. Of virtue?
31. Of bravery?
32. Of tyranny?
33. Of cruelty?
34. Of suffering?
35. What noted orators are mentioned?
36. What noted poets?
37. What friendships so noted that modern attachments are compared to them?
38. What inventors are recorded here?
39. What inventions?
40. Which has a list of illustrations?
41. Which have copies of famous masterpieces?
42. Which has the names of artists indicated?
43. Which has a model of Herod's temple?
44. In which are there head pieces?
45. In which tail pieces?
46. Which has the finest illustrations?
47. Which have maps?
48. Which have uncolored maps?
49. Which has the best uncolored maps?
50. Which have colored maps?
51. Which has the best colored maps?
52. Which has enlarged maps of cities?



53. Which has maps indicating conditions existing long ago?
54. In which is the print most attractive?
55. Which has the longest index?
56. Which the shortest?
57. Which indexes contain a key to pronunciation?
58. Which have important subjects worked out fully in the index?
59. Which include a concise explanation of the word?
60. Which has the best index?
61. Which have explanatory notes?
62. Which has a chronological table?
63. Which have the names of rulers in rhyme?
64. In which are there references to other books?

CHAPTER XXVIII.

**PROBLEMS WHICH CONFRONT THE TEACHER OF HISTORY IN THE GRADES.**

How the teacher may constantly broaden his own knowledge so as to be a source of inspiration to his pupils.

To travel, if possible, so that historical events may be described by means of places actually seen.

How to awaken at first the pupil's desire to study history.

How to awaken his imagination.

How to describe most graphically.

How to vivify the past, so as to cause the pupil to re-live it.

To decide what topics to teach in the different grades.

What literature to select that will appeal to pupils of a particular grade.

To decide which are major and which minor points in history.

To decide what subjects in European history to select that will bear most directly upon American history, and be of most interest to the pupil.

How best to study the individual experiences of pupils so that in the presentation of subjects the teacher will know to what to appeal in the pupil, and upon what foundation he has to build.

How to make a good geographical background for history.

How to teach the pupil to investigate for himself and not simply rely upon the teacher's statement.

How to teach him the philosophy that underlies the study of history and aid him in philosophizing?

To decide which are the best biographies to place before him.

How to bring out the events of an entire period through the study of the life of one man.

What life to select for such a study.

How to bring out the many-sidedness of a character like Benjamin Franklin's.

How best to teach pioneer life.

To teach pupils to emulate the lives of great men and women.

How to induce the pupil to master the facts of history before class so that the recitation period may be employed with discussion of principles, causes and effects.

How to make the best possible presentation of the story.

To know what aids to employ to intensify the interest in the story.

How to make history more vivid by means of comparisons.

To decide what lives and incidents to compare to the pupil's best advantage.

How much attention to give to chronology.

What dates to teach the pupil.

How to place before him problems that will appeal to him to solve and that will demand effort proportionate to his abilities.

How to state conditions plainly when presenting a problem.

How to train the pupil's reasoning power.

How to teach him to exercise his theorizing activity in a rational manner.

How to keep him from saying nonsensical things when theorizing.

How to train his judgment.

How to teach him to estimate probabilities.

How to teach him to weigh arguments.

How to deal with subjects in which there may be decided differences of opinion in an impartial and unprejudicial manner.

How to cultivate in the pupil fair-mindedness and honesty.

How to correlate geography and literature when teaching history.

Where to find subject matter that will correlate with history.

How to get material for supplementary reading and reference work where school and town have not good libraries.

How to incite the pupil to do supplementary reading.

How to teach history so that it may not be simply a vast number of separate facts.

How to teach the great moral lessons to be gained from history.

How to conduct the recitation so that it may not degenerate into dull routine.

How to make the pupil really work and not be simply a listener in the history lesson.

How to teach him ideal citizenship.

How to teach patriotism.

How not to teach ultra-patriotism.

How to teach the comparison of the old and new methods of travel interestingly.

How to make use of local politics and familiar experiences in illustrating difficult subjects.

How to present the subject of taxes practically.

How to present the subject of banking in an intelligent manner.

How to teach the comparison of the effect of inventions upon each other.

How to make the lives of inventors interesting.

What devices to use in teaching history.

How to use the blackboard to advantage.

What historical pictures to show the pupil.

How to intensify interest by the judicious use of illustrations from art.

To show lantern slides illustrating points of interest if possible.

To have the class visit museums, old buildings, monuments and places of interest.

How much construction work to teach in connection with history.

How to present the subject in so delightful a manner that the pupil will ever afterward become a student and a lover of history.



## PART VI SPELLING.

---

### CHAPTER XXIX.

#### SPELLING.

**The Educational Value of Spelling.**—Someone has said that it is no crime to be a poor speller nor is it any particular credit to be a good speller.

It is a part of “the culture that marks the man of letters” and yet it is not thought to have the educational value accorded to some subjects.

Says Roark: “There is no test of literacy or illiteracy quite so rigidly applied as the test of ability to spell.”

McMurry, in his *Method of the Recitation*, states that, “it is not a full study,” and again, “spelling fails to receive the respect accorded to other studies.”

Dr. Gordy says, “the child recalls the correct spelling of the word by a dead heave of mechanical memory.”

**How Does Spelling Compare in Value With Arithmetic, Geography and History?**—The educational value that is derived from a study like spelling is not at all comparable to that derived from a branch like arithmetic, geography or history.

In the last mentioned subjects, principles, generalizations and underlying truths can be sought such as cannot be found in a subject like spelling.

A generalization formed in a subject like geography may lead to a broader generalization and that in turn

may lead to a still broader one, but no such opportunity is offered in spelling.

McMurry says: "Its want of reliable rules deprives it of scientific content and it is regarded by many persons as an evil, though a very necessary one."

Another has said, that if the child forgets the spelling of a word, there is nothing in which the judgment can help to set him right.

In view of all this, education demands that the cultured man be able to spell correctly.

### **What Good Results From the Study of the Subject?—**

I. Fitch says: "Every new word which we thus add to a child's store, is a new instrument of thought and does something to widen the horizon of his understanding."

II. Correct spelling indicates a certain kind of education.

III. It commands respect from others.

IV. It trains a peculiar kind of memory which is not used in other studies, however.

V. It aids in pronouncing a word correctly. He who mispronounces is often ignorant of the correct spelling of the word.

VI. It aids in distinct articulation.

VII. There is a feeling of conscious power that comes from the mastery of even a minor subject like spelling.

**Does It Develop the Reasoning Power?—**While the reasoning power may not be called forth in a branch like the one under discussion as in some subjects, yet it does develop it to a degree.

The old-fashioned way of spelling the word by pronouncing it before and after spelling, and pronouncing each syllable when spelled and repronouncing the syllables previously spelled, contained a certain kind of logical training.



The modern method contains some logic, though not quite so much. If a new word, as "orthographically," is pronounced to the child, he tries to spell it because he recognizes the root word, graph, knows how to spell the prefix and suffix, guesses at the letters needed to join the syllables and usually forms the correct combination.

He uses a certain kind of reasoning power also in applying the few rules and exceptions which it is wise for him to learn.

**What Classes of People Need Spelling Most?**—Teachers, professional people, all whose writings come before the public eye, as authors, editors, proof-readers, book-keepers and type-writers, are some of the people who especially need to know how to spell.

**Why is Such Stress Laid Upon Spelling in the Normal School?**—Stress is laid upon spelling in the normal school because:

I. The education of the graduate should be such, even in a subject like spelling, as will reflect credit upon the standard of the institution.

II. The teacher should be a model for her pupils.

III. She should be able to correct the pupil's work with great exactness.

IV. However lacking other people may be the teacher is supposed to be perfection in every particular and would command more respect from both pupil and patron if she was not deficient in this branch.

**Spelling in the Grades and in the High School.**—The beginning lessons in spelling should be taught in connection with sight writing, when the pupil enters school.

At the point when the child is asked to spell the word which he has written in imitation of the teacher's copy, his spelling lessons begin.

Many believe that the child has not completed his first reader unless he can recognize and spell all the words it contains.

Perhaps an average number of words for a term's work in the lower grades would be between two and three hundred.

Spelling should be taught in at least six grades, if there is a separate period devoted to it.

Through the correction of papers and exercises it is practically taught in the high school even though no separate period may be given to it.

Roark says: "The orthography in all written work, on whatever subject, in whatever grade, from the primary through the university should be as carefully noted and corrected as anything else in the exercises."

**Should There be a Separate Lesson for Spelling or Should Each Written Lesson be a Spelling Lesson?**—Each written lesson should be a spelling lesson in the sense that the words misspelled should be marked and handed to the child to be re-written. He should be marked down for words misspelled in the written exercise or in examination in other subjects, for they form a part of the correctness of the production.

**Should Oral or Written Spelling Be Taught Exclusively?**—Neither oral nor written spelling should be taught exclusively for the pupil needs both, but the latter should predominate, because:

I. Each pupil may be tested on all the words in the lesson.

II. Written spelling is used all through life, oral comparatively seldom.

III. Roark says: "Written spelling gives a double opportunity to imprint visual images, and it strengthens these impressions through both ear and hand."

IV. Fitch says: "But after all, it is to be borne in mind that spelling is a matter for the eye, not for the ear. If it were not that we had to write, spelling would be an altogether useless accomplishment."

V. That which is addressed to the eye is retained longer than that addressed to the ear, hence the impression received from written spelling is more permanent

Roark says: "The teacher's drills in orthography should be of a nature to require the pupil to observe constantly word forms, and he is forced to exercise more care than in oral work.

VI. The frequent use of the familiar dictation exercise is practically a recognition of the fact that it is mainly by writing that spelling is taught.

VII. The pupil is given but one opportunity to spell the word and he is forced to exercise more care than in oral work.

VIII. He is more careful in writing than in spelling orally, because to re-write means either waste of paper or an untidy page.

IX. It gives the teacher opportunity to examine spelling blanks at her leisure.

X. If blanks are exchanged it may teach the lower grade pupil to be neater and more correct in his work.

Oral spelling, if used at all, should be studied in the lower grades, as it aids in clear enunciation and correct pronunciation.

When the pupil spells the word orally he should pronounce it first, make a slight pause between the syllables and pronounce it again at the completion of the exercise.

**Text or List of Words.**—The method adopted by many excellent teachers is to use a list of words suited to the pupil's grade which it is necessary for him to know, selected from the subjects he is studying, as reading,

geography, language and history, placed upon the board to be studied.

It is not best for the teacher to rely entirely upon her own judgment, however, but it is expedient to have ready access not only to one, but to several texts from which to select words that should be added to the lists she has made, in case it does not contain words it is important for the pupil to know.

**Should a List of Isolated Words be Taught?**—It is not advisable to teach the pupil a list of isolated words just because they happen to have a sound in common. It is of much more value to teach him the word in connection with the sentence in which it is contained. Not until this is done can it be certain that the word has really become a part of his vocabulary.

Nor should he be taught to spell words of whose meaning he is ignorant, for they have no connection with his life and may pass from memory nearly as soon as learned.

Fitch says it is unreasonable to "accumulate the difficulties in a menacing and artificial column and expect them to be dealt with all at once."

It is a good plan to require the pupil to write the word and the definition also. The average pupil may with profit use the dictionary in spelling at about ten years of age, to look up the pronunciation and meanings of words and learn the diacritical markings.

If he sees in printed or written form first, some choice, classical selection and it is afterwards dictated to him, it may teach him to spell correctly and serve to quicken his interest in good literature.

He may commit some fine passage and write it from memory and thus a double purpose may be gained as in the previous case.

**Should the Rules of Spelling Be Taught?**—It would not be wise for the pupil to learn all the rules of spelling, for he would not remember them long enough to make it practical, but some of those used most frequently, which he would perhaps retain permanently, might with profit be committed and repeated from memory.

**Should Spelling Be Correlated With Other Studies?**—Spelling may be correlated with such subjects as reading, language, history and geography in this wise, that in connection with these studies the pupil may be taught some of the words which should form part of his permanent vocabulary.

**Number of Words to Pronounce in Different Grades.**—After the work is fairly begun in spelling perhaps five words is enough to assign for one lesson in the first grade. This number may be gradually increased as the child's capability develops until in the upper grades it reaches twenty-five or thirty words.

**Should the Child be Given Misspelled Words to Correct?**—Although when spelling blanks are exchanged the pupil may correct his class-mate's work, a list of misspelled words to be corrected should not be assigned him as a spelling lesson. If from the time when he is able to read, only those words are kept before him which are spelled correctly, it is believed that his tendency to spell correctly would thereby be strengthened.

**Should There be a List of Misspelled Words?**—If there are certain words which are constantly misspelled by pupils they may be placed upon the board where they can be seen frequently and may be included in the regular lesson until they are thoroughly learned.

**Why Are We as a Whole a Generation of Poor Spellers?**—The English language is difficult to spell because of its

conglomerate nature, being derived from many different sources, the Latin, the Greek, the French, the Spanish, the Italian and other languages.

While there are rules which may guide somewhat in determining the spelling of a word there are so many exceptions to them that the difficulty is but slightly lessened.

**Why Are People Poor Spellers?**—Roark says that “no one pardons a poor speller,” so that it may be well to seek to find the cause why people are poor spellers.

I. Sarah Arnold says people are poor spellers because they have not an adequate sense of form.

II. Roark says that the poor speller is he who cannot form and retain accurate visual images of words.

People are also poor spellers for the following reasons, because:

III. Enough emphasis has not been placed upon the subject.

IV. There has been no special period devoted to spelling.

V. Sufficient time has not been spent upon it.

VI. The pupil does not pronounce the word distinctly.

**Why Are We as a Whole a Generation of Poor Spellers?**—While there are many notable exceptions, it is generally conceded that as a generation we are not the spellers our parents were.

The curriculum in our parents' day did not contain such modern innovations as nature study, physical and manual training, so that more time could be given to each individual subject than we are able to spend.

Roark believes that the poor speller among the adults of today is partly the result of the ignorance of the old schoolmaster who knew nothing of “visual images” or “auricular images.”

It is not considered to be a subject of so much importance as it once was and so much force has not been spent upon it. In both speaking and writing the thought has been emphasized to a marked degree and it has been taught that this was of vastly more importance than the vehicle which contained the thought.

**Why Were Our Parents Good Spellers?**—Our parents were good spellers because in former years it was regarded as one of the most important subjects and great stress was laid upon it.

In days of old, a spelling book might be found in each corner of the house, and child spelled to child, to his parents, or to anyone who would listen, so eager was he to master Webster's spelling book from cover to cover.

It was his chief ambition to first wear the honor of being the champion speller of the school, and finally to win the coveted prize at the "spelling match" which grew from local interest to be one of the most exciting events in the public life of the country.

It is possible that more attention was given to the significance of the root word and its derivatives than is paid now, and this may have been conducive toward better spelling.

**Should the Child Write the Misspelled Word Twenty-five Times?**—While writing the misspelled word a few times may serve to fix the correct spelling in the child's mind, he should not be required to write it twenty-five times nor any great number of times.

He often writes it fairly well the first two or three times and then his penmanship degenerates into a comparatively meaningless scrawl before the task is finished, and the thought uppermost in his mind is the moment when he will gain his liberty rather than that of spelling the word.

If not watched when he first begins operations, he sometimes writes the word incorrectly and copies that incorrectness the required number of times.

Such unreasonable demands make the pupil feel that he has suffered an imposition, that spelling is a bore and the teacher a task master.

**What Are the New Movements in Spelling?**—The new movements in spelling seem to be but a revival of old customs. It is generally conceded that spelling has been neglected to such a degree that more study should be spent upon it, and so spelling matches are being inaugurated in many places and prizes given as in days of yore.

Roark says: "The spelling match, with its captains, its 'choosing out,' its stubbornly fought contests, stimulates the orthographic activity of the whole school, even of those who are not engaged in the struggle."

**Should Diacritical Markings be Taught?**—To spell a word means to know not simply the letters that compose it, and the order in which they occur, but also the sound values of each letter and its diacritical mark.

This knowledge aids in pronunciation and enunciation, which are important components of the spelling of the word.

As a variation from the regular work the pupil may with profit write the word and indicate its diacritical markings. He may also be required to commit some of the more important rules for such marks. The place for teaching diacritical marks thoroughly and well is in the lower grades, but if they have been neglected, spellers containing work on this subject and texts on orthography and orthoepy suited to pupils of the higher grades may be obtained to supplement the deficiency in this important subject.



**How Should a Written Spelling Lesson be Conducted?**

—The written spelling lesson may be conducted in the following manner:

I. In assigning the lesson the previous day be sure that the pupil can pronounce the words and that he understands their meaning by having him use them in sentences.

II. Be certain that each pupil is provided with writing materials before the lesson begins.

III. Make it a rule to pronounce the word very distinctly but once.

To pronounce words well is an art which comes only with practice.

IV. Have pupils exchange papers.

V. Have words spelled correctly while pupils mark mistakes.

VI. Assignment of next lesson.

**Variation in Pronouncing the Spelling Lesson.**—The pronunciation of the spelling lesson may be varied in the following manner:

I. The teacher may pronounce the entire lesson.

II. A pupil who articulates distinctly may pronounce the lesson.

III. Instead of pronouncing one word the teacher may give several at a time.

IV. The teacher may pronounce the word, the class writing the word and definition.

V. The teacher may pronounce the word and the class may write a sentence containing this word.

VI. The child may write the words of the lesson from memory.

**Should Separate Note-books be Used for Spelling.**—If the pupil has a note-book devoted especially to spelling,

even though it be inexpensive, it may incite him to keep it neatly, to take pride in gaining high marks and in making no mistakes throughout the book.

**Suggestions for Correcting Words During the Recitation Period.**—Some of the suggestions for correcting words during the recitation period are as follows:

I. The teacher herself may spell all the words of the lesson.

II. A pupil may spell the entire lesson.

III. Individual pupils may be called upon by the teacher, each spelling one word.

IV. One pupil may spell a word and he in turn may call upon another pupil to spell another word and so on until all the words are spelled.

The pupil may be allowed to mark his own words with or without the presence of the text, or blanks may be exchanged as follows:

I. A pupil may exchange with one sitting in the same seat.

II. With one across the aisle.

III. With one on the opposite side of the room.

It is well to have different pupils exchange papers and thus reduce the opportunity of cheating to the minimum, if possible.

**How Often Should Words be Marked by the Teacher?**—

If the pupil knew that each written exercise he produced would pass under the teacher's critical eye, it would be an incentive for him to put forth his best effort always.

Because of limited time the teacher cannot do this. She should examine the spelling blanks twice, or at least once, a week. The pupil should be given to understand that even though he may be allowed to judge his own or his class-mate's work his marks will pass ultimately under the teacher's eye.

Although working for marks may not be the highest motive, if the rank is plainly marked on the outside of the blank, it may be a valuable incentive to the pupil.

## CHAPTER XXX.

**QUESTIONS ON SPELLING.**

1. What is the educational value of spelling?
2. How does it compare in value with arithmetic, geography or history?
3. What good results from the study of the subject?
4. Does it develop the reasoning power?
5. Does it train the mind for other studies?
6. To be well educated is it necessary to spell well?
7. How many words does the pupil of today need to spell as compared with the pupil of years ago?
8. What classes of people need spelling most?
9. Why is there such stress laid upon spelling in the normal school?
10. When should it be taught first?
11. What is the average number of words that a child should learn during his first term of school?
12. Should it be taught in all the grades?
13. When would you cease to teach it?
14. Should there be a separate lesson for the spelling?
15. Should each written production be a spelling lesson?
16. Should oral or written spelling be taught exclusively?
17. Which should predominate?
18. Why?
19. How often does the pupil use oral as compared with written spelling?
20. In what grades should oral spelling be used?

21. How should the word be separated when spelled orally?
22. Should a text be used in teaching spelling?
23. Should only one book be used?
24. What are the best texts in spelling?
25. Should a list be put upon the board?
26. Where should this list be obtained?
27. Should a list of isolated words be taught?
28. Is it advisable to learn to spell words of whose meaning the pupil is ignorant?
29. Should the word be taught as an isolated word?
30. Should definitions be taught also?
31. When should the child use the dictionary in spelling?
32. How should he use it?
33. How should dictation exercises be taught in connection with spelling?
34. Should the rules of spelling be taught?
35. Should they be committed and repeated from memory?
36. Should spelling be correlated with other studies?
37. With what subjects may it be correlated?
38. How many words should be given in one lesson in the early grades?
39. In the upper grades?
40. Should the child be given misspelled words to correct?
41. Should there be a list of words often misspelled?
42. Why is the English language difficult to spell?
43. From what languages are our words derived?
44. Why are people poor spellers?
45. Why are many good students poor spellers?
46. Why are we as a whole a generation of poor spellers?
47. Is poor spelling an evidence of a poor memory?

48. Is there such a thing as being "born short" in spelling?
49. Is it possible for all to be good spellers?
50. Why were our parents good spellers?
51. What should be done with the pupils who miss words?
52. How should we assist a pupil who is trying hard to master spelling who does not seem to make any progress?
53. Should the child write the misspelled words twenty-five times?
54. What are the new movements in spelling?
55. What is your opinion of a spelling match?
56. Does not a spelling match detract from the pupils' interest in school work enough to overbalance all the good derived from it?
57. What do you think of giving prizes for the best spelling?
58. Is it necessary to know the sounds of the letters before one can become a good speller?
59. Should diacritical markings be taught?
60. How should diacritical marks be taught if they have been neglected in the lower grades?
61. Should rules for diacritical marks be memorized?
62. In conducting a written spelling lesson, how should the lesson be assigned?
63. What variation may there be in pronouncing the words?
64. In what order should they be pronounced?
65. How may the subject matter of the lesson be varied?
66. How may the exchange of papers be varied?
67. In what different ways may the words be corrected during the recitation period?
68. In what ways do pupils cheat in spelling?

69. Should separate note-books be used for spelling?
70. How often should they be marked by the teacher?
71. How may spelling records be kept in the lower grades?
72. What is your opinion of simplified spelling?
73. What list of words is it allowable to spell as sounded?
74. What is the best time for the spelling recitation?
75. In giving examinations in other studies should the pupil be marked lower for misspelled words?
76. What is meant by working for head marks?
77. How much time should be spent on spelling?
78. Give all the devices you can for teaching the spelling lesson.

CHAPTER XXXI.

**OUTLINE FOR THE STUDY OF TEXTS IN SPELLING**

**V. Preface.**

- a. Number of pages?
- b. Comparative length?
- c. Main words?
- d. Are they definitely brought out?
- e. Comprehensive?
- f. Purpose of book stated?
- g. Clearly set forth?
- h. Acknowledgment of aid?

**VI. Acknowledgment of Permission to Publish.**

Where found

- a. Preface?
- b. Close of selection?

**VII. Contents.**

- a. Comparative length?
- b. Number of lessons?
- c. Divided into parts?
- d. Chapter indicated?
- e. Page indicated?

**VIII. Suggestions to Teachers.**

- a. Where found?
- b. Helpful?
- c. Sufficient number?

**IX. Suggestions to Pupils.**

- a. Comparative number?
- b. Helpful?



- c. Practical?
- d. Where found?

## X. Material of Text.

- A. Upon what based?
  - 1. Dictation exercises?
  - 2. Fine selections from literature?
    - a. Prose?
    - b. Poetry?
      - 1. Name of author given?
  - 3. Nature study?
  - 4. Botany?
  - 5. Fables?
  - 6. Geography?
  - 7. Physics?
  - 8. History?
  - 9. Physiology?
  - 10. Geology?
  - 11. Industry?
  - 12. Chemistry?
  - 13. Civil service?
  - 14. Selected words to be written in sentences?
  - 15. Syllables and accent?
  - 16. Words classified?
  - 17. Sounds and symbols?
  - 18. Table of diacritical marks?
  - 19. Guide to pronunciation?
    - a. Table of vocals?
    - b. Of equivalents?
    - c. Of subvocals?
    - d. Of aspirates?
    - e. Subvocals and aspirate equivalents?
  - 20. Script to be copied?
  - 21. Contractions?
  - 22. Word building?

23. Words having opposite meaning?
24. Words having similar meaning?
25. Suffixes?
26. Prefixes?
27. Prefixes in words of foreign origin?
28. Terms used in
  - a. Geography?
  - b. Hygiene?
  - c. Commerce?
  - d. Music?
  - e. Arithmetic?
  - f. Astronomy?
  - g. History?
29. Root words and derivatives?
30. Derivatives from foreign languages?
31. Drill in accentuation?
32. Drill in pronunciation?
33. Words of different origin
  - a. Anglo-Saxon?
  - b. Celtic?
  - c. French?
  - d. Scandinavian?
  - e. Dutch?
  - f. Italian?
  - g. Spanish?
  - h. Greek?
  - i. Latin?
  - j. German?
34. Homophones?
35. Homonyms?
36. Synonyms?
37. Words of similar meaning from different languages?
38. Marks used in writing and printing?

39. Word analysis?
40. Lists of words containing the sound of a particular letter?
41. Words of interesting etymology?
42. Application of rules and exceptions?
43. Words containing troublesome terminations?
44. Exercises in grammatical form?

**XI. Abbreviations Used in Writing and Printing.**

- a. Number of pages?
- b. Those most frequently used?

**XII. Latin Words and Phrases.**

- a. Number of pages?
- b. Those most frequently used?

**XIII. French Words and Phrases.**

- a. Number of pages?
- b. Those most frequently used?

**XIV. Arrangement of Material.**

- a. Logical sequence?
- b. Is material such as to stimulate the pupil to thought?
- c. Arranged for correlation?
- d. Lessons of same nature interspersed through text?
- e. Topical?
- f. Spiral?
- g. Phonetical?
- h. Which predominates?
  1. Written spelling?
  2. Oral spelling?
- i. Divided into parts?

**XV. Rules.**

- a. Comparative number?
- b. Clear?

- c. Concise?
- d. Where found?

**XVI. Definitions.**

- a. Comparative number?
- b. Clear?
- c. Concise?

**XVII. Reviews.**

- a. Frequent?
- b. How often occur?
- c. Important words?
- d. Non-important words?

**XVIII. Pronunciation of Difficult Words.**

- a. Are words diacritically marked?
- b. Accented?
- c. Syllabized?
- d. Silent letters italicised?

**XIX. References to Dictionary.**

- a. How many?
- b. Where found?

**XX. Division into Lessons.**

- a. Well divided?
- b. Poorly divided?

**XXI. Grading of Lessons.**

- a. Well graded?
- b. Poorly graded?

**XXII. For What Ages?**

**XXIII. For What Grades?**

**XXIV. Unusual Features of Book?**

**XXV. Favorable Criticisms?**

**XXVI. Unfavorable Criticisms?**

**XXVII. Problems Before Teacher?**

**XXVIII. The Psychological Aspect?**

## CHAPTER XXXII.

**PROBLEMS WHICH CONFRONT THE TEACHER  
OF SPELLING.**

1. What words to select for the spelling list.
2. What words to choose to supplement the spelling texts.
3. How many words to assign for a lesson.
4. How to present the lesson in such a manner as to interest the pupil.
5. How to vary the presentation.
6. How to plan the work so that written spelling shall predominate.
7. To learn to pronounce the word so distinctly that one pronunciation will suffice.
8. How to vary the pronunciation of words in the spelling lesson.
9. How to increase the pupil's vocabulary through the study of spelling.
10. How to develop the reasoning power by means of spelling.
11. What definitions to teach the pupil.
12. What rules of spelling to teach.
13. What rules to teach for the diaeretical markings.
14. How to teach the pupil to use the dictionary so that he will be interested in it.
15. How to present prefixes and suffixes in an attractive way.
16. How to incite the pupil to do the neatest possible written work.

17. How to vary the exchange of papers in the recitation.
18. How to vary the correction of words.
19. How to prevent deception.
20. How to retain the pupil's interest in the lesson.
21. How to conduct a spelling match.
  - a. How to conduct it with the utmost fairness.
  - b. How to vary the manner of conducting it.
22. How often to have a spelling match, taking into consideration the highest welfare of the school.
23. How to assist the pupil who endeavors to learn, but who constantly misses words.
24. To decide whether misspelled words in other lessons than the spelling lesson should be deducted from the pupil's per cent.

## PART VII. MISCELLANEOUS.

---

### CHAPTER XXXIII.

#### QUESTIONS ON MUSIC.

1. What is the educational value of music?
2. How much musical experience does the average child possess when he enters school?
3. What does the supervisor hope to accomplish in the beginning work?
4. What is a rote song?
5. Why should it be taught?
6. What is its two-fold purpose?
7. What are the details of presenting it?
8. How can the teacher be sure that the child understands what he is singing?
9. Why is it important that the child should have the best in music as well as in literature?
10. What advantage is there in having the play spirit manifest in the song period?
11. Of what value are motion songs?
12. What are the titles of three good motion songs?
13. What is the name of the composer of each?
14. Why is it best to limit the number of motion songs?
15. In what three primary songs may pupils indicate the rhythm unconsciously just in the spirit of play?
16. What are several devices used to develop the sense of rhythm?
17. How early should rhythm work begin?
18. In what grade should pupils indicate the rhythm by means of clapping, circles and other devices?

19. In what grade is the child expected to have a conscious feeling for rhythm?
20. In what grade is he expected to have a conscious feeling for the pulse or beat?
21. Is it possible for all children to learn to sing?
22. Why are some children considered monotones?
23. Is it possible to present songs in such a way that monotones could be practically done away with?
24. What suggestions may be offered for dealing with monotones?
25. What special devices may be used with students needing additional help?
26. If a child is allowed to pitch his voice very low in reading alone or in concert, what effect will it have upon his singing voice?
27. What are the names of three of the best composers of children's songs?
28. What are the titles of three books containing the best rote songs for the primary grades?
29. What are the names of three autumn songs?
30. In what books is each found?
31. Who is the composer of each?
32. What are the names of three winter songs?
33. In what books is each of these found?
34. Who composed each?
35. What are the names of three spring songs?
36. In what books is each found?
37. Who composed each of these?
38. Why should the supervisor of music keep in touch with what the grade teacher is doing in the general lessons or nature study work?
39. Which should receive more emphasis in primary music, song singing for enjoyment or preparation for sight reading?



40. How can sweet, light singing instead of loud, harsh tones be obtained from children?
41. What is the comparison between the "scale method" of teaching music and the old "alphabetical method" of teaching reading?
42. How does the "song method" compare with the modern methods of teaching reading?
43. In what grade should the first ear training work begin?
44. What are the various devices for ear training?
45. If the major scale is not presented in the lower grades, how will the pupil become acquainted with the intervals of the scale?
46. What advantage is there in teaching the syllables of the songs by rote or as an additional stanza?
47. What is meant by using a rote song for observation purposes?
48. What advantage is there in picturing the songs on the board in passing from "rote" work to "notes" and the book?
49. How should the pitch pipe be used?
50. For what other purposes besides starting songs should it be used?
51. How much rote song singing is advisable in the intermediate grades?
52. Why is an exercise in melody writing of more value than writing scales or signatures?
53. In what grade should theory work begin?
54. What theory should be taught first?
55. What per cent of the time given to written work should be devoted to theory?
56. In what grade should the major scale be presented first?

57. In what grade the chromatic scale?
58. How should it be presented?
59. In what grade should the minor scale be presented?
60. How presented?
61. In what grade should part work begin?
62. What advantage is there in using rounds as preparation for part work?
63. How should the voices of boys and girls be tested and assigned to soprano and alto parts?
64. To what extent should the unison song be used in the upper grades?
65. Of what value is it?
66. To what extent should college songs be used in upper grades or high schools?
67. How should music be presented in the upper grades when it has not been taught in the preceding work?
68. What advantage is there in studying the words before the melody in the upper grammar grades?
69. Of what value is individual work?
70. In what grade should it begin?
71. Through how many grades should it be continued?
72. How much individual work comparatively can the supervisor expect to obtain?
73. What musical terms ought grammar grade pupils to know?
74. How should they be taught?
75. What is the secret of real expression in song singing?
76. How much musical history should be taught in the grades?
77. How should it be taught?
78. Which three of the composers should the pupil learn first?
79. Which do you consider the best system of music books?

80. Why?
81. What are three of the best systems of teaching music?
82. How is each of these taught?
83. What different phase of music teaching does each emphasize?
84. How should music be conducted in the high school where it is being introduced?
85. How much theory should be taught?
86. Which should receive more emphasis, song singing or the study of theory?
87. How may boys be interested in song singing?
88. Is it advisable to have some musician outside of the school play or sing for high school students as a listening lesson?
89. Of what value would it be?
90. What are the titles of two good high school song books?
91. What is the greatest problem in high school music?
92. What is the purpose of organizing girls' and boys' glee clubs?
93. How many pupils should there be in each club?
94. What are the titles of three choruses suitable for girls' glee clubs?
95. What are the titles of three choruses suitable for boys' glee clubs?
96. Why should some unison songs be used for boys' glee clubs?
97. Upon what part in the high school chorus should the boys with unchanged voices be placed?
98. When should rehearsals for commencement music begin?
99. What six books upon music should every supervisor have in his library ?

## CHAPTER XXXIV.

**QUESTIONS ON PENMANSHIP.**

1. What movements are recognized in writing?
2. What are the characteristics of the various movements?
3. Which is the best?
4. Why?
5. What is a movement drill?
6. What are four illustrations of movement drills?
7. What are the advantages to be derived from them?
8. How often should they be used?
9. What portion of a lesson should be devoted to them?
10. What is the relation that should exist between them and the letters to be developed by them?
11. What movement drills should be used for the following letters: e, m, a, o, L, Q?
12. What is letter classification?
13. What is its basis?
14. How should the small letters be classified?
15. What is the type letter of each class?
16. How does studying and practicing letters by classes assist in learning to write?
17. What letter should be presented first to beginners?
18. Why?
19. What two plans may be used in teaching the form of letters?
20. To which should more attention be given, the small or the capital letters?
21. Of what value in the work in writing is figure practice considered?

22. How are figures and letters related?
23. How should figures be developed?
24. How does the height of the figure one compare with the height of the small letter a?
25. What are relative heights of the ten digits?
26. What letter is used as the unit for measuring the height of letters?
27. What is used for measuring the width?
28. According to these units, what is the height and the width of the small letter "m"?
29. Is it essential to have an absolute standard of slant?
30. What is the most desirable standard?
31. What are the essentials of good business writing?
32. Which ranks first?
33. Why?
34. How may speed be developed?
35. How many words averaging five letters each should be written per minute to measure up to commercial rate?
36. About how many capital "O's" per minute?
37. How many figure sevens?
38. How may counting be used in letter and word practice?
39. Of what use is counting in muscular movement development?
40. What is your method of counting in class work?
41. How many counts should be given per minute for oval exercises, one space in height, counting the down strokes?
42. What devices may be used as a substitute for the teacher's counting?
43. How may the metronome be used here?
44. What is rhythm in writing?
45. In what exercises is it especially noticeable?

46. How may music be used to establish the count in writing?
47. What advantage has it over counting?
48. How often should it be used in writing lessons?
49. What is meant by the analysis of letters?
50. What use is made of it at the present time?
51. What are the benefits to be derived from it?
52. Of what importance is position?
53. What are the details of the correct position to be used in writing?
54. How should it be taught?
55. What will good position render easy to develop?
56. What effect will an incorrect position have upon movement?
57. What effect will a stooped or twisted position be likely to have upon the health of the child?
58. What is the relation of habit to position in writing?
59. What is the main problem in developing writing in the primary grades?
60. What should be planned for the first three lessons for a beginning class in writing?
61. Why is it as essential that lesson plans be made for the subject of writing as for other subjects?
62. What special advantages may result from the use of the blackboard in the primary grades?
63. Of what value are special lessons in the use of the lead pencil?
64. What effect has the use of slates upon writing?
65. When should the use of pen and ink be introduced?
66. What penholders and pens are best for pupils in the grammar grades to use?
67. What material should be used for practis work in the higher grades?

68. What use may be made of the blackboard in teaching writing to advanced classes?
69. What objections are usually offered to the copy book?
70. What may be substituted for it?
71. Should individuality in writing be discouraged?
72. What are the so-called advantages of the vertical system?
73. What are the so-called disadvantages?
74. Why did it fail?
75. What are the advantages claimed for slant writing?
76. When should the muscular movement be introduced?
77. Where are the muscles used in muscular movement located?
78. What is meant by muscular relaxation?
79. What especial reasons are there for having the muscles in the writing arm relax?
80. How may this be secured from the pupil?
81. What is meant by writers' paralysis?
82. Which movement is most apt to produce it?
83. Why do the majority of people use the finger movement?
84. Should the left-handed pupil be forced to write with the right hand?
85. What effect does work carelessly written in other subjects have upon the pupils' special writing lessons?
86. How may the general written work of the school assist in building up good writing?
87. What should the teacher do to stimulate good writing not only at the writing lesson, but also at all other times?
88. What use should be made of movement designs?
89. What is the especial danger in their use?

90. Should ornamental writing be taught in the public schools?
91. What mental faculties are especially employed in writing?
92. How are these powers affected by a thoro course in writing?
93. What natural incentives may be used to stimulate work in writing?
94. Should prizes be offered for improvement in writing?
95. What are the reasons for this?
96. What method should be used in criticising pupils' writing?
97. What is the contrast between constructive and destructive criticism as applied to writing?
98. Is writing an end or a means to an end?
99. When is the best period during the day for the writing lesson?
100. What two leading monthly magazines are published in the interests of good writing?
101. Of what special benefit are these to teachers of writing?
102. How may they be used with advantage to pupils?



## CHAPTER XXXV.

**QUESTIONS ON MANUAL TRAINING.**

1. What is this age called?
2. Why is this nation turning in this direction?
3. What is manual training?
4. What are the arguments for it from the standpoint of environment?
5. Of the individual?
6. Of psychology?
7. How old is the movement?
8. With whom did it originate?
9. Who are the leaders?
10. Who originated the plan of introducing manual training into the school?
11. Which schools were the first to adopt it?
12. In what schools in this state is it taught?
13. In what grade should instruction begin?
14. Should it be taught as a separate branch in the lower grades?
15. What means of expression has the pupil?
16. How does he show his love for construction?
17. What are the systems by which manual training is taught?
18. Which is advocated in this school?
19. What is the comparative cost of each?
20. What is the approximate cost of inaugurating a manual training course in a small town of a thousand pupils?
21. Is not the pupil of today overburdened with work?

22. How could time be found for manual training?
23. Should it be taken from other studies for this work?
24. Should some standard branch of study be excluded in order to give it place?
25. Would there not be a tendency in having so much additional work, to do no one thing well?
26. To what extent should manual training be taught in the public school?
27. To what grades should the instruction be extended?
28. What kind of work is adapted to the lower grades?
29. What should be emphasized in the 4th, 5th, 6th, 7th and 8th grades?
30. In the upper grades?
31. Would it be advisable to have this branch in the high school?
32. What work should be given to high school pupils who have had no previous instruction on this subject?
33. How could interest in the study be awakened best among the patrons of the ordinary high school, so that its introduction would be sanctioned?
34. If manual training had been taught in the lower grades, what should be the high school pupil's knowledge of this subject?
35. How much time each day should be given to it?
36. What part of the day should be devoted to it?
37. How much time should be spent upon it in order that it might prove a benefit?
38. At what age should the pupil be allowed to specialize in it?
39. What should be the aim in manual training?
40. Should the pupil understand the real purpose of manual training?
41. Should the meaning of mechanical work be explained?

42. Should the teacher's aim be that of the pupil?
43. What is the purpose of teaching it in the normal school?
44. Is there scope for individuality?
45. How much of the pupil's own thought and expression should be put into the work?
46. Should emphasis be placed upon the useful or upon the beautiful throughout the course?
47. Could manual training be correlated with other subjects?
48. How could it be correlated?
49. What is the connection between drawing and manual training?
50. Should work be the same for boys and girls?
51. At what age should they work separately?
52. If a girl shows ability in the line of carpentry and joinery, or a boy along the lines of domestic science should provision be made for the bent of each?
53. Does the boy or girl form the more satisfactory pupil in manual training?
54. How should materials be furnished?
55. Should the pupil own the tools with which he works?
56. How should products be marked?
57. Should the dull pupil's products be marked higher than those of the bright pupil?
58. Would manual training keep the pupil in school longer?
59. Would it keep the boys in school?
60. Should the pupil be compelled to take manual training if he has not the least inclination along that line?
61. What should be done in case the parents object to it?
62. Would it be beneficial to the pupil who is intellectually inclined and takes no interest in hand work?

63. Would it be as distasteful to some as book knowledge is to others, so that compulsory educational laws would still be necessary if it were generally taught?
64. Would it take the attention from other work?
65. Would there not be danger of the pupil's becoming so interested that he would neglect other studies?
66. If the pupil takes no interest in books should he be allowed to put them aside entirely for manual training which does interest him?
67. What should be done if interest is lost entirely in other studies?
68. Would manual training do away with apprentice work in trades?
69. Would the instruction which a boy receives in school be sufficient to enable him to earn a living?
70. What trades should be represented in a town not manufacturing extensively?
71. Would a knowledge of manual training promote interest along other lines?
72. Should articles made be what the pupil would use in his own life?
73. Could manual training be pursued to advantage in the rural districts?
74. As the time in country schools is so filled with recitations how could a place be found for it?
75. How would you manage if parents in the country objected to buying material for the pupil?
76. Would it be advisable in rural schools to require all pupils to take manual training regardless of the time they were to be in school or the amount of work they did at home?
77. Could muscular development be gained through this work?

78. Should manual training be substituted for physical training?
79. What proof would there be, if this plan of teaching manual training in the schools was carried out, that our country would be more purely a democracy?
80. How could the pupil be shown that any kind of manual work in the outside world is only a larger form of manual training in the school?
81. What opportunity is there for teaching textiles in this work?
82. In teaching cooking should the teacher be compelled to adapt herself to her class?
83. What use could be made of manual training exhibits?
84. In this day of industrial instability, how could what is permanent in manual training be determined?
85. Would the introduction of a manual training course work out in practice as in theory?
86. Would it do away with class distinction?
87. Is it a factor in developing the mind?
88. Would it help to solve our labor problems?
89. Should outside references be demanded in the study?
90. Is manual training a fad?
91. Would first enthusiasm last?
92. Would knowledge gained in this subject result in more artistic decorations of the school room?
93. What would a knowledge of manual training have upon the pupil's ability to purchase?
94. What paper is published especially in the interests of this subject?
95. What is the best text upon this study?
96. In what schools is particularly fine work done?
97. Where may the pupil specialize in this line?

## CHAPTER XXXVI.

### QUESTIONS ON THE FIVE FORMAL STEPS.

1. With what does good teaching deal?
2. In what does it consist?
3. Why have words no magic power?
4. What is the mind's attitude toward knowledge?
5. What is the first duty of the teacher?
6. In erecting a building what does the architect do first?

#### First Step—Preparation

7. What is the first of the five formal steps?
8. What are the dangers of omitting this step?
9. Why is the child's sympathy a necessary condition for success?
10. What are the precautions with regard to this step?
11. What should be the teacher's attitude toward the anticipation of facts?
12. What are the characteristics of the pupil's aim?
13. What may the form of the statement of the aim be?
14. Why is it difficult to word properly the pupil's aim?
15. For what does this step of preparation afford opportunity?
16. What is the time required for it?
17. What is the common practice concerning it?
18. What is the name often given to it?

**Second Step—Presentation**

19. What is the second step?
20. What is the need for the statement of the aim in this step?
21. What may be the form of the presentation?
22. With what must the class be engaged in order that it may be the second step in instruction?
23. By what methods are most subjects treated?
24. What is the plan of the lecture method?
25. What are the arguments in favor of it?
26. What are the objections to it?
27. What is the plan of the text-book method?
28. What are the three phases through which this method has passed?
29. What are the arguments in favor of it?
30. What are the objections to it?
31. What is the plan of the developing method?
32. What are the arguments in favor of it?
33. What are the objections to it?
34. If the teacher wishes to make sure of the real appreciation of knowledge, how must the facts offered come?
35. For what, on the child's part, should the best method make provision?
36. What is the distinction drawn between repetition and review?
37. Before knowledge can be digested, what is necessary?
38. What used to be the custom with regard to reviews?
39. Under these conditions, what kind of work was done?
40. Of what should reviews aim to put the child in possession?
41. What should they, in the main, signify?
42. How could they be made more interesting?
43. When should be the time for review?

44. What steps are necessary in the mastery of individual notions?

### **Third Step—Comparison**

45. What is the third step?  
46. What does it presuppose?  
47. To what extent should it be carried?  
48. What are the advantages of comparison?  
49. How do comparisons lead to abstraction?  
50. What is the difficulty in reaching conclusions?

### **Fourth Step—Generalization**

51. What is the fourth step?  
52. What is the difficulty in stating a generalization?  
53. To state a conclusion tersely means what?  
54. By whom should the generalization be made?  
55. The statement of a definition, law or rule should be the outcome of what?  
56. What is true of reproducing the book's statement?  
57. When should the words of another be accepted?  
58. What is the summary with regard to the generalization?

### **Fifth Step—Application**

59. What is the fifth step?  
60. What is the child's most difficult problem?  
61. What are the errors on the road to application?  
62. What is the old question regarding theory and practice?  
63. In what manner is the theoretical character of school knowledge brought to light?  
64. What is the result of theoretical, bookish knowledge?  
65. What does variation and readjustment necessitate?



66. What does it require to apply general notions?
67. To what is the modification of our application of principles likened?
68. Why are exact reviews not the best form of application?
69. What do excessive, routine drills accomplish?
70. What opportunity do other studies furnish?
71. In what should instruction and theory culminate?
72. What should be the movement toward use and application?
73. For what is the school a place?
74. What may education by its theoretical tendency produce?
75. By what does the storage theory need to be reinforced?
76. To teach children to apply knowledge requires what on the teacher's part?
77. What is the amount of time now given to application?
78. How is application shown in the subjects of language and grammar?
79. What must necessarily be done in order to secure the proper kind of thinking?
80. What is one conclusion that springs from this discussion?
81. What is meant by the lesson unit?
82. What has dominated the entire movement?
83. In the application, with what are we still operating?
84. Upon what does the length of time required for working out the five formal steps depend?

## CHAPTER XXXVII.

**THE HECTOGRAPH.**

Many teachers need some means of duplication. If the recipes for the Hectograph as given below are used, a satisfactory and inexpensive duplicator may be made with very little outlay. Some of the uses for which the hectograph may be employed are as follows:

1. Supplementary work for all classes which require it.
2. Supplementary material for classes in reading.
3. Outlines of work.
4. Review topics.
5. Examination questions.
6. Questions for reference work, as in the study of history or geography.
7. References where answers to such questions may be found.
8. Questions to be answered in class after a geographical or botanical excursion.
9. Experiments to be performed.
10. Words for the spelling lesson.
11. Programs.
12. Invitations.
13. Poems.
14. Songs, both notes and words.
15. Directions for manual training work.
16. Drawings.

**Hectograph—First Recipe.**

20 ozs. glycerine.

5 ozs. water.

4 ozs. glue (common white).

Soak glue in water over night in new tin pan. Set on back of stove next morning and let gradually melt. When melted add glycerine, stirring slowly. Boil for two minutes, remove from stove, strain through thin cloth into a shallow pan (18 by 9 by 1 inches) or into a slate, set on a level place and let it cool. Next morning wash off with very warm water. Let it dry for three or four hours and it is ready for use.

Always wash it immediately after you have used it, with lukewarm water.

### **Second Recipe.**

Soak four ounces of silver sheet glue in five ounces of water over night. Then add eighteen ounces of pure glycerine and boil eight minutes. Strain through a cloth, pour into a pan and let cool.

### **Recipe for Hectograph Ink.**

One package purple diamond dye dissolved in a pint of water. Boil it away one-half and add a teaspoonful of ether.

## CHAPTER XXXVIII.

**OPENING EXERCISES.**

**Value of.**—Knowledge gained from books has its place in the world and no one questions its value, but there is a great deal of wisdom not gleaned from book-lore that helps to make a person broadly educated.

When Cecil Rhodes appropriated a fund whereby American students might further pursue their education in England, he stipulated that pupils chosen for the competitive examination should possess high scholarship in academic branches and should also excel in athletics, be skilled in music; in short, be “all-round” men.

The regular subjects found in the curriculum are highly essential to the production of a well-rounded education, but it is possible for the opening exercises to be so conducted as to form a strong supplement to the routine work and be made the best period educationally of the day.

**Reasons for.**—Some of the reasons for such exercises are:

1. It forms a transition from play to work.
2. It brings the school into harmony through work done in unison.
3. Both pupil and teacher may be “keyed up” for the day.
4. It gives the pupil opportunity to discover his aptitudes because of the individual exercise he may be asked to perform before the school.

**Teacher's Opportunity.**—If a teacher who has just entered upon work in a new community can impress her pupils early in her career by that for which she has a special aptitude, it may help her to establish a reputation as a strong instructor. If she is especially gifted as a player of instrumental music, as a vocalist, as a reader, as an artist, or if she has had fine advantages for travel, or has undergone unusual experiences, or if her powers of description are fine, or she is able to impress deeply some moral truth, the opening exercises may offer an opportunity not given in the daily routine.

**No Duplication.**—The general or morning exercise should avoid duplicating studies and yet should broaden the child's mind.

**Worship.**—Where the law of the state does not forbid, worship may be made the main part of the exercise.

**Passage from the Bible.**—The teacher may read or the pupils may learn verse by verse a chapter from the Bible, repeating in unison. Or, the chapter may be learned by individual study, the pupils repeating in concert.

**Moral Truths.**—As a variation from the reading of the scripture, there may be an occasional substitution of uplifting thoughts possessing a high moral tone, selected from a noted author.

**Exercises by Pupils.**—A large part of the exercises should be given by the school, as what the pupils do themselves usually interests them more than to be passive listeners.

Committees may make reports upon topics of special interest.

**Entertainment by Class.**—One class may offer an entertainment prepared by itself. This may consist of a song

newly learned or a dramatization whose meaning the remainder of the school is to interpret. Other exercises of a similar nature will suggest themselves to the teacher.

**Vacation Reports.**—After vacation, especially the long summer interim, there is heard the constant hum of spirited conversation during recess periods. Pupils are relating to each other incidents of happy days and pleasant experiences. Why not utilize this desire on the pupils' part and have the entire school, instead of a few individuals, benefited by the effort?

Select a few pupils, who will make good reports, have rehearsals enough to make sure that the effort will be creditable, and allow pupils to tell of travels, of excursions, and of places of interest visited during the months of separation.

**Production in English.**—If in the language or English recitation, an essay or composition of unusual merit has been produced, the teacher may show her appreciation of and encourage the pupil to further effort by having the production read before the school.

Or, if a story has been written or told in such a manner as to hold the attention, this may be repeated before the school.

**Book Reviews.**—A very valuable exercise may be reports on favorite books read by individual pupils. This will encourage the reading of good literature, will provide a theme of paramount interest to the pupil and aid in fluency of expression.

**Music.**—If the school room is fortunate enough to contain a piano or organ, many musical exercises may be provided; but if not so fortunate, solos may still be a possibility, for vocal, violin, mandolin, or guitar selections may be rendered.

**Whistling.**—If the town has among its citizens an individual who is an excellent whistler of songs or, better still, if one of the pupils can whistle, this will form an interesting exercise.

**Special Days.**—Special days, such as Thanksgiving, Christmas, Easter, and Memorial Day, also great events and the birthdays of great men and women, are generally observed throughout the schools.

**Quotations.**—Quotations worth cherishing in the memory may be learned by the school; at times from one author, at others from miscellaneous authors.

A quotation may be written upon the board and learned by private study, being erased when mastered, or the school may repeat in concert until it has been committed.

If this memorizing is persisted in, enough quotations may be thoroughly learned so that there is one for each pupil. For the last day exercises, the response to roll-call may be by means of quotations, none being duplicated.

Quotations, especially adapted for school work, may be found in "Treasured Thoughts," by Frank V. Irish, of Chicago, and in a periodical entitled "Remember," published at Emporia, Kansas.

**Proverbs.**—Proverbs may be substituted for quotations and used in a similar manner.

**A Good Book.**—The teacher may spend a stated time each day or just a few minutes between the warning bell and the last bell reading an interesting book to the pupils.

**Magazine.**—One school was asked to subscribe for a magazine, the one chosen being "St. Nicholas." The affair was so presented that the financial phase of it was easily managed. Pupils brought money as they could,

some more, some less, some none at all. No one was urged personally, and there was always enough to pay for each copy and a trifle remaining. The magazine was ordered purposely through the dealer, for the teacher wished "St. Nicholas" to be found among the month's display of new magazines, that there might be awakened in her pupils the pleasure that comes from seeing a window full of attractively arranged fresh periodicals and that there might also be aroused the eagerness to peruse their contents, such as comes to every true lover of reading.

The continued story was read from month to month and each new installment was eagerly awaited. This periodical was placed upon a reading desk and the pupils were made to feel that it belonged to them personally. Often at intermission, one pupil would be found re-reading a selection, read by the teacher, while other pupils would be grouped around listening with rapt attention. When school closed for the year and the teacher left the place permanently, as the story was not completed, many of the pupils gathered during the summer vacation of their own volition and finished it.

This occurred in the grades and when these pupils graduated, the historian called attention to the fact that the class, as a whole, had ever since that time been noted for having a special literary bent and it was attributed to the teacher who had interested them in literature.

The reading desk referred to was a very unpretentious one, consisting of a long, wide board, slanted slightly, provided with a small ledge to prevent papers from falling off, and placed at the height at which pupils of this grade might stand and read with ease. Upon it was placed, besides the magazine and scrap-book before mentioned, files of "Youths' Companions," donated by a woman whose children were grown, also files of "Harper's Illus-



trated Weekly," neither being in their pristine freshness, but still containing much both interesting and instructive. Besides this were found sample copies of periodicals, such as always find their way to teachers. This desk was often a great aid in discipline when the cold, stormy days came and pupils preferred to remain in the house during intermission.

**Current Events.**—Current events may be handled in various ways so as to be interesting as well as profitable. They may also aid in increasing the interest of parents in school work, since children are likely to consult with those at home concerning subjects under discussion in school.

1. They may be placed upon a bulletin board, comment being passed upon them or not, at will.

2. They may be reported upon by a pupil especially designated.

3. They may be reported upon by a committee, either by the chairman or by each member of the committee.

4. The class may be divided into sides and each side may contest to see which presents the better report.

5. The teacher may assume the task of reporting, or direct the efforts of pupils.

Occasionally it lends a pleasing variety to give items of news a trifle out of the regular order.

**Previous Notable Events.**—Recalling notable incidents that happened the same day in previous years may be made a very interesting exercise. Articles upon this subject are often published in the newspapers.

**Debate.**—A very profitable exercise in any grade is a debate. Care must be taken, of course, to see that the subject is appropriate to the pupils' stage of advancement.

**Stranger or Townsman.**—A stranger or townsman may be invited to discuss important events or express a personal view. Not every one who has good command of English has the personality requisite to hold the attention of pupils and the teacher should satisfy herself upon this point before an invitation is extended, and sometimes it is well to give definite suggestions as to what should be said.

**Noted Individual.**—If a lecturer or eminent person who has given an entertainment in the place can be persuaded to address the school, it may prove both interesting and instructive and may constitute an event long remembered by the pupils.

**Addresses by Professional Men.**—The professional men of the place may be invited to address pupils on subjects upon which they are particularly qualified to speak and which come within their experience.

The following may prove suggestive:

I. Doctors may discuss:

1. The value of good health and how to care for it.
2. Tuberculosis.

II. Dentists.

1. Hygiene of the mouth and teeth.
2. Physiology of the mouth.

III. Lawyers.

1. Law as a profession.
2. Contracts.

IV. Ministers.

Subjects may be chosen by the speaker, unless the address is wanted for a particular purpose.

V. Business men.

1. Success in business.
2. Honesty in business methods.

**Suggestive Topics.**—The following topics may be suggestive as the subject for a special address:

Panama canal.

Events of the Civil war.

“Noblesse oblige.”

The dictionary.

Two eruptions of Mt. Vesuvius.

San Francisco earthquake.

Types of courage.

Nonsense in literature.

Stories of shepherd life.

Favorite songs.

The Jungle.

Scotland.

Book illustration.

Music of different nations.

Pottery.

A Greek festival.

Roman customs.

Inventors and inventions.

City of Washington.

Evolution of tools.

First telegraph message sent.

Wireless telegraphy.

Telegraph strike.

Life in a castle.

**Unusual Entertainment.**—If a performance of unusual excellence, as a lecture, concert or play, is to be produced in the town during the year, intelligent discussion upon such a subject may awaken the pupils' desire to attend and may also cause them to be much more appreciative listeners.

**Trip to City or Country.**—If the teacher has taken a trip to some large city or country, she may make a talk

upon this subject intensely interesting, or an imaginary trip need not be wholly lacking in interest.

If the teacher has the power of making copies of famous masterpieces or pictures of noted places visited interesting and real to the pupils, especially if illustrated by choice postal cards such as are so generally manufactured at the present time, they may be highly instructive.

**Postal Cards.**—An entire set of postals of a city like Boston or Philadelphia—rich as are these places in historical associations—may be provided for each pupil and would serve to create clear ideas in their minds.

Or a set of postals of such excellence as those made of the Congressional library at Washington would be highly educative.

The pupil may become so familiar with such pictures as to recognize them instantly, to appreciate literary references to them, and to be able to converse intelligently even with one who has toured the continent.

**Stereoscopic Views.**—If the school is provided with a stereoscope, views may be shown of interesting places like the Yellowstone Park or the Rocky Mountains.

Many teachers make their own slides and in this way incur but slight expense.

**Fair or Exposition.**—Some fair or exposition, of either national or international interest is often in progress, and it may prove of unusual educational interest to the teacher if she chooses to make it so, especially if she or any of her pupils are expecting to attend.

If of sufficient importance, the papers will be filled with illustrations and information concerning it. These illustrations may be placed upon a bulletin board and will help to sustain interest and to make the pupils' ideas upon the subject much clearer. The teacher may

speak of the preparations under way for the exposition and of the interesting things to be seen there or of the reports brought back by those who have already attended. After the return of teacher or pupils from such expositions, the school will be particularly interested in descriptions of things actually seen and experiences passed through. The two fairs of the middle west, at Chicago in 1893 and at St. Louis in 1904 were very accessible and especially instructive from an educational standpoint.

The bulletin board previously mentioned may or may not be elaborate. A simple one may be constructed of any kind of boards that will dovetail together, and covered neatly by dark green or black cambrie or silesia. This may be suspended from the wall by strong wire. Brass-headed tacks, such as artists and surveyors use, make the neatest and most satisfactory fasteners.

This board may also be used for displaying pictures, not worth framing or those needed in the school room for a short time; for posting current events or clippings from the newspapers, or for the pupils' best written productions in subjects pursued.

When the illustrations of the fair or exposition are taken from the bulletin board, they may be collected in a scrap-book and put upon a reading desk placed at the pupils' disposal. After the discussion is over, interest in the pictures does not decrease, for the pupils will often refer to them and talk the subject over among themselves.

**Factory Visited**—A factory or some place of special interest, visited by pupils or teacher, may be reported upon.

**Mediums of Communication.**—Items of current history are always of interest, and the mediums of circulation, as the telegraph, the newspaper and the magazine, will all prove interesting.

**Important Discoveries.**—If the important discoveries which are constantly being made in the world of science, are presented to pupils in an interesting way, it will be an incentive to them to keep abreast of the times.

**Gymnastic Exercises.**—Gymnastic exercises, especially if not included in the curriculum, make a pleasing variation.

## CHAPTER XXXIX.

**LISTS OF TEXTS TO BE EXAMINED.****Readers**

Brumbaugh's Standard First Reader.  
Brumbaugh's Standard Second Reader.  
Brumbaugh's Standard Third Reader.  
Brumbaugh's Standard Fourth Reader.  
Brumbaugh's Standard Fifth Reader.

Martin G. Brumbaugh.

Baker and Carpenter Readers.

First Year Language Reader.  
Second Year Language Reader.  
Third Year Language Reader.  
Fourth Year Language Reader.  
Fifth Year Language Reader.  
Sixth Year Language Reader.

Stepping Stones to Literature.

Sarah Louise Arnold.

Charles B. Gilbert.

A First Reader.  
A Second Reader.  
A Third Reader.  
A Fourth Reader.  
A Reader for Fifth Grades.  
A Reader for Sixth Grades.  
A Reader for Seventh Grades.  
A Reader for Higher Grades.

Lights to Literature.

Rand, McNally & Co.

Book One.

Book Two.

Third Reader.

Fourth Reader.

Fifth Reader.

Progressive Course in Reading.

George I. Aldrich and Alexander Forbes.

First Book.

Second Book.

Third Book.

Fourth Book.

Fifth Book.

Graded Literature Readers.

Harry Pratt Judson.

Ida C. Bender.

First Book.

Second Book.

Third Book.

Fourth Book.

Fifth Book.

Sixth Book.

Seventh Book.

Eighth Book.

The Jones Readers.—L. H. Jones.

The Jones First Reader.

The Jones Second Reader.

The Jones Third Reader.

The Jones Fourth Reader.

The Jones Fifth Reader.



**School Reading by Grades.**

Baldwin's Readers.—James Baldwin.

First Year.

Second Year.

Third Year.

Fourth Year.

Fifth Year.

Sixth Year.

Seventh Year.

Eighth Year.

**Heart of Oak Books.**

Charles Eliot Norton.

Book I.

Book II.

Book III.

Book IV.

Book V.

Book VI.

Book VII.

**The Heath Readers.**

First Reader.

Second Reader.

Third Reader.

Fourth Reader.

Fifth Reader.

Sixth Reader.

**Language Lessons and Grammar.****Language Lessons.**

Book One.

Book Two.

Charles DeGarmo.

Elements of English Grammar.

George P. Brown and Charles DeGarmo.

Mother Tongue—Book I.

Mother Tongue—Book II.

Arnold and Kittridge.

Language Lessons.

Grammar Lessons.

Wilbur Fisk Gordy.

William Edward Mead.

Foundation Lessons in English.

Book One.

Book Two.

O. I. Woodley and M. S. Woodley.

Foundation Lessons in English Language and Grammar.

O. I. and M. S. Woodley and G. R. Carpenter.

New Lessons in Language.

English Grammar and Composition.

Gordon A. Southworth.

Elementary Composition.

William Frank Webster.

Webster-Cooley Language Series.

Language Lessons—Book I.

Alice W. Cooley.

Language Lessons from Literature.

Book One.

Book Two.

Alice W. Cooley.

Elementary English.

Elements of Grammar and Composition.

Advanced Grammar and Composition.

E. Oram Lyte.

Graded Lessons in English.

Higher Lessons in English.

Reed and Kellogg.

### Arithmetics.

Walsh's Arithmetic.

John H. Walsh.

Walsh's Elementary Arithmetic.

Mathematics for Common Schools (Intermediate).

Grammar School.

Book I.

Book II.

Higher Arithmetic.

The Werner Arithmetic.

Frank H. Hall.

Book I.

Book II.

Book III.

Smith's Arithmetics.

Primary Arithmetic.

Grammar School Arithmetic.

David Eugene Smith.

Primary Arithmetic.

Public School Arithmetic for Grammar Grades.

McLellan and Ames.

The Rational Arithmetic—Elementary.

H. H. Belfield and Sarah C. Brooks.

Grammar School Arithmetic.

George W. Myers.

Sarah C. Brooks.

The Essentials of Arithmetic.

Book I.

Book II.

Gordon A. Southworth.

### **Geographies.**

Tarr and McMurry's Introductory Geography.

Tarr and McMurry's Complete Geography.

Ralph S. Tarr and Frank M. McMurry.

A Teacher's Manual of Geography.

Charles McMurry.

Dodge's Elementary Geography.

Dodge's Advanced Geography.

Richard Elwood Dodge.

Elementary Geography.

Advanced Geography.

Charles F. King.

Frye's Elements of Geography.

Frye's Complete Geography.

Alexis Everett Frye.

Natural Elementary Geography.

Natural Advanced Geography.

Jacques W. Redway and Russel Hinman.

The Rand-McNally Elementary Geography.

Florence Holbrook.

The Rand-McNally Grammar School Geography.

James A. Bowen.

Revised by

Charles Redway Dryer.

### **Spellers.**

Morse Speller.

Samuel T. Dutton.

Progressive Course in Spelling.

J. N. Hunt.

### **Orthographies.**

Institute Drill Work, Orthography and Word Analysis.

O. J. Laylander.

Irish's Orthography and Orthoepey.

Frank V. Irish.

### **Histories.**

McMurry's Method of Teaching History.

Norse Stories.

Hamilton Wright Mabie and Katherine L. Bates.

The Story of the Chosen People.

The Story of the Greeks.

The Story of the Romans.

The Story of the English.

Story of the Thirteen Colonies.

Story of the Great Republic.

H. A. Guerber.

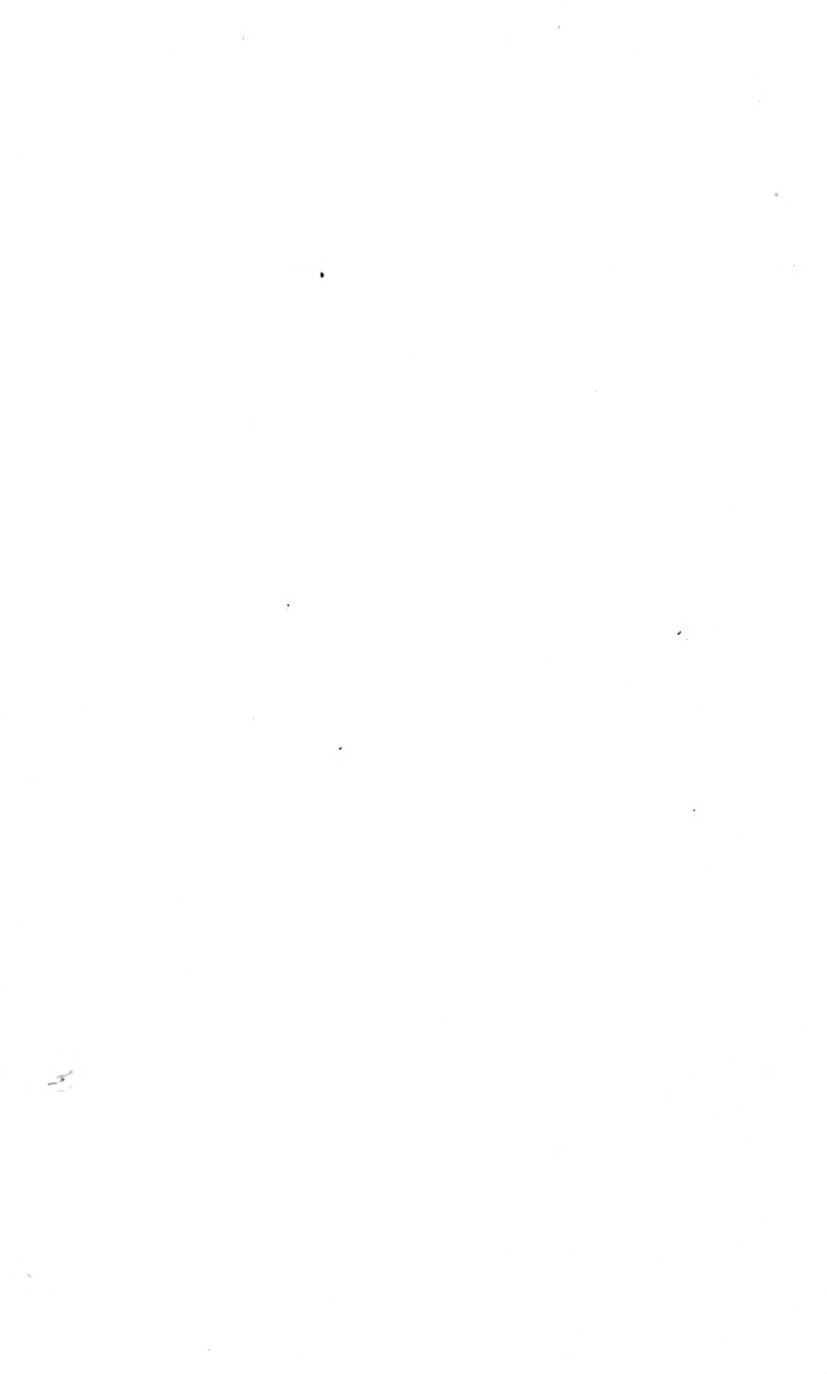
**Nature Studies.**

The Nature Study Idea.

Liberty H. Bailey.

McMurry's Teaching of Elementary Science.



















YB 35375

LB1735

B9

543677

Educ Dept

UNIVERSITY OF CALIFORNIA LIBRARY

