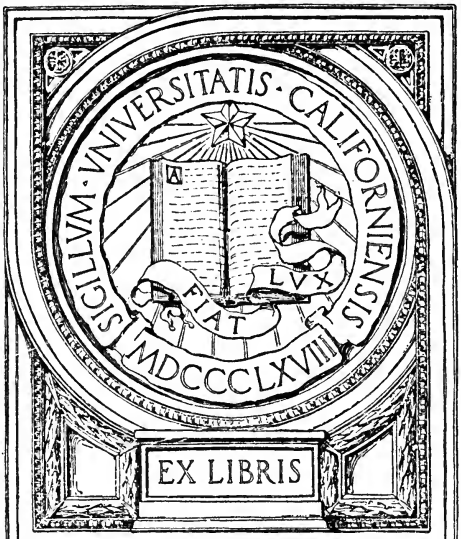

COURSE OF STUDY

FOR THE

COMMON AND GRADED SCHOOLS OF NORTH DAKOTA

NINETEEN HUNDRED THIRTEEN

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1913

Issued by the State Department of Education
E. J. TAYLOR, Supt.

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Constitutional and Statutory Provisions

Sec. 147. STATE CONSTITUTION] A high degree of intelligence, patriotism, integrity and morality on the part of every voter in a government by the people being necessary in order to insure the continuance of that government and the prosperity and happiness of the people, the legislative assembly shall make provision for the establishment and maintenance of a system of public schools which shall be open to all children of the state of North Dakota and free from sectarian control. The legislative requirements shall be irrevocable without the consent of the United States and the people of North Dakota.

The following provisions of law are taken from Chapter 266 of the Laws of 1911.

Sec. 5. PRESCRIBE COURSE OF STUDY.] He, (the state superintendent) shall prepare and prescribe a course of study for all the common schools of the state.

Sec. 20. GENERAL DUTIES. VISITS.] He, (the county superintendent) shall visit each common school at least once a year and carefully observe the conditions of the school, the mental and moral instruction given, the methods of teaching employed by the teacher, the teacher's ability, and the progress of the pupils. He shall advise and direct the teachers in regard to the instruction, classification, government and discipline of the school and the course of study. He shall keep a record of such visits and by memoranda indicate his judgment of the teacher's ability to teach and govern, and the condition and progress of the school, which shall be open to inspection by any school director.

Sec. 21. GENERAL DUTIES, BLANKS, TEACHERS' MEETING.] He shall carry into effect all instructions of the superintendent of public instruction given within his authority. He shall distribute to the proper officers and to teachers all blanks furnished him by such superintendent, and needed by such officers and teachers. Acting under the instructions of the superintendent of public instruction, he may convene the teachers of his county not to exceed one Saturday in each month during which the public schools are in progress, or if the distance is too great he may convene the teachers of two or more districts in each of the several portions of his county in county or district meetings, for professional instruction and for such other work as may be approved by the superintendent of public instruction. Each teacher shall attend the full ses-

sions of such meetings when required, and participate in the exercise thereof, or forfeit one day's wages for each day's absence therefrom, unless such absence is occasioned by sickness of the teacher or others to whom his attention is due; but when, on account of distance or otherwise, it would impose a hardship upon any teacher to attend, or would cause the teacher to neglect his school, the county superintendent may excuse such teacher from attendance.

Sec. 72. TEACHERS. HOW EMPLOYED. SALARIES.] It (The common school board) shall employ the teachers of the school district and may dismiss a teacher at any time for plain violation of contract, gross immorality or flagrant neglect of duty. No person shall be permitted to teach in any public school who is not the holder of a teacher's certificate or a permit to teach, valid in the county or district in which such school is situated, and every contract for the employment of a teacher must be in writing and such contract must be executed before such teacher begins to teach in such school; provided, that no teacher holding a valid certificate shall receive less than forty-five dollars per month. Nothing in this section shall be construed to mean that teachers holding the same grade certificate must necessarily receive the same salary.

Sec. 74. RULES. SUSPENSION OF PUPILS.] It (the common school board) shall assist and cooperate with teachers in the government and discipline of the schools, and may make proper rules and regulations therefor. It may suspend or expel from school any pupil who is insubordinate or habitually disobedient, but such suspension shall not be for a longer period than ten days nor such expulsion beyond the end of the current term of school.

Sec. 75. BRANCHES OF STUDY.] Subject to the approval of the county superintendent, it shall have power to determine what branches, if any, in addition to those required by law shall be taught in any school of the district.

Sec. 83. SCHOOL TERMS, HOW ARRANGED AND WHEN DISCONTINUED.] The district board shall determine and fix the length of time the schools in the district shall be taught each year, and when each term of school shall begin and end. It shall so arrange such terms as to accommodate and furnish school privileges equally and equitably to pupils of all ages; provided, that every common school shall be kept in session for not less than seven months in each school year; provided, further, that any school may be discontinued when the average attendance of pupils therein for ten consecutive days shall be less than four, and all contracts between school boards and teachers shall contain a provision that no compensation shall be received by such teacher from the date of such discontinuance, if proper and convenient school facilities be provided for the pupils therein in some other school.

Sec. 241. PENALTY FOR WILFUL DISTURBANCE OF SCHOOL.] Each person whether pupil or not, who wilfully molests or disturbes a public school when in session or who wilfully interfers with or interrupts the proper order of management of a public school by act of violence, boisterous conduct or threatening language, so as to prevent the teacher or any pupil from performing his duty,

or who shall in the presence of the school children upbraid, insult or threaten the teacher, shall upon conviction thereof be punished by a fine not exceeding twenty-five dollars or by imprisonment in the county jail for a period not exceeding ten days, or by both.

Sec. 267. GIVE NOTICE OF OPENING AND CLOSING SCHOOL.] Each teacher on beginning a term of school shall give written notice to the county superintendent of the time and place of opening such school and the time when it will probably close, and prior to receiving salary for the month each teacher must exhibit his certificate or permit to teach to the clerk of the district school board. If such school is to be suspended for one week or more in such term the teacher shall notify the county superintendent of such suspension.

Sec. 268. WHEN TEACHER NOT ENTITLED TO COMPENSATION.] No teacher shall be entitled to or receive any compensation for the time he teaches in any public school without a certificate or permit to teach, valid and in force for such time in the county where such school is taught, except that if a teacher's certificate shall expire by its own limitation within six weeks of the close of the term, such teacher may finish such term without re-examination or renewal of such certificate.

Sec. 269. TEACHER'S REGISTER, WHAT TO CONTAIN.] Each teacher shall keep a school register and at the close of each term make a report containing the number of visits of the county superintendent and such items and in such form as shall be required. Such report shall be made in duplicate, both copies of which shall be sent to the county superintendent who, if he finds such report to be correct, shall immediately return one copy to the district clerk to be filed with him. No teacher shall be paid the last month's salary in any term until such report shall have been approved by the county superintendent and one copy returned to the district clerk.

Sec. 270. SCHOOL YEAR AND SCHOOL WEEK DEFINED. HOLIDAYS.] The school year shall begin on the first day of July and close on the thirtieth day of June of each year. A school week shall consist of five days and a school month of twenty days. No school shall be taught on a legal holiday or on Saturday, provided, however, that on February the twelfth (Lincoln's birthday), February twenty-second (Washington's birthday) and May the thirtieth (Memorial day) all schools in session shall assemble for a portion of the day and devote the same to patriotic exercises consistent with the day, unless such holiday shall fall upon Saturday or Sunday. A legal holiday in term time falling upon a day which otherwise would be a school day shall be counted and the teacher paid therefor, but no teacher shall be paid for Saturday or be permitted to teach on Saturday to make up for the loss of a day in the term.

Sec. 271. BRANCHES TO BE TAUGHT IN ALL SCHOOLS.] Each teacher in the common schools shall teach pupils as they are sufficiently advanced to pursue the same, the following branches: Orthography, reading, writing, arithmetic, language lessons, English grammar, geography, and lessons in nature study and

elements of agriculture, United States History, civil government, physiology and hygiene, giving special and thorough instruction concerning the nature of alcoholic drinks and narcotics, and their effect upon the human system. There shall also be taught in every school in connection with physiology and hygiene simple lessons in the nature, treatment and prevention of tuberculosis and other contagious and infectious diseases. All pupils in the above mentioned schools below the high school and above the third year of school work computing from the beginning of the lowest primary year, shall receive instructions in hygiene every year from text books adapted to grade in the hands of pupils for not less than four lessons per week for ten weeks of each school year. In all schools above mentioned, all pupils in the three lowest primary school years shall, each be instructed orally in hygiene for not less than three lessons per week for ten weeks of each school year by teachers using text books adapted to grade for such instruction as a guide or standard. Each teacher in schools in special districts and in the cities organized for school purposes under special law shall conform to and be governed by the provisions of this section.

Sec. 272. TEACHING HUMANE TREATMENT OF ANIMALS.] There shall be given in the public schools of North Dakota, in addition to other branches of study now prescribed, instructed in the humane treatment of animals; such instruction shall be oral and shall consist of not less than two lessons of ten minutes each per week.

Sec. 273. TEACHERS' INSTITUTE AND TEACHERS' TRAINING SCHOOLS. NOTICE PENALTY FOR FAILURE TO ATTEND.] When a teachers' institute or teachers' training school is appointed to be held in or for any county it shall be the duty of the county superintendent to give written or printed notice thereof to each teacher in the public schools of the county, and as far as possible to call others not then engaged in teaching, who are holders of teachers' certificates, at least ten days before the opening of such institute or teachers' training school of the time and place of holding it. Each teacher receiving such notice, engaged in teaching a term of school which includes wholly or in part the time of holding such institute or teachers' training school, shall close school and attend the same and shall be paid by the school board of the district his regular salary as teacher for the time he attended such institute or teachers' training school, as certified by the county superintendent, but no teacher shall receive pay unless he has attended four days nor shall any teacher receive pay for more than five days. The county superintendent may revoke the certificate of any teacher in his county for inexcusable neglect or refusal after due notice, to attend a teachers' institute or teachers' training school held for such county. The provisions of this section shall not apply to high schol teachers, nor to teachers in cities organized for school purposes under a special law, nor to teachers in cities organized as independent districts under the provisions of this chapter.

Sec. 274. PUPILS MAY BE SUSPENDED FOR CAUSE.] A teacher may suspend from school for not more than five days any pupil for insubordination, habitual disobedience, or disorderly conduct. In such cases the teacher shall give immediate notice to the parent or guardian of such pupil, and also to some member of the district board of such suspension and the reason therefor.

Sec. 275. Assignment of Studies to Pupils.] It shall be the duty of the teacher to assign to each pupil such studies as he is qualified to pursue, and to place him in the proper class in any studies subject to the provisions of section 271, provided, that in graded school under the charge of a principal or local superintendent, such principal or superintendent shall perform this duty. In case any parent or guardian in a common school district is dissatisfied with such assignment or classification, the matter shall be referred to and decided by the county superintendent.

Sec. 276 Bible Not Sectarian Book. Reading Optional With Pupils.] The Bible shall not be deemed a sectarian book. It shall not be excluded from any public school. It may at the option of the teacher be read in school without sectarian comment, not to exceed ten minutes daily. No pupil shall be required to read it or to be present in the school room during th ereading thereof, contrary to the wishes of his parents or guardians or other person having him in charge.

Sec. 277. Moral Instruction.] Moral instruction tending to impress upon the minds of pupils the importance of truthfulness, temperance, purity, public spirit, patriotism, international peace, respect for honest labor, obedience to parents and due deference for old age, shall be given by each teacher in the public schools.

Sec. 278. Physical Education.] Physical education, which shall aim to develop and discipline the body and promote health through systematic exercise, shall be included in the branches of study required by law to be taught in the common schools, and shall be introduced and taught as a regular branch to all pupils in all departments of the public schools of the state, and in all educational institutions supported wholly or in part by money from the state. It shall be the duty of all boards of education and boards of educational institutions receiving money from the state, to make provision for daily instruction in all the schools and institutions under their respective jurisdiction, and to adopt method or methods as will adapt progressive physical exercise to the development, health and discipline of the pupils in the various grades and classes of schools and institutions receiving aid from the state.

Sec. 287. United States Flag to be Displayed. The school board or board of education of any city, town, or district, is authorized and required to purchase at the expense of the city, town or district, one or more flags of the United States, which shall be displayed in seasonable weather, upon the school houses, or flagstaff upon the school grounds during the school hours of each day's session of school.

Sec. 288. Superintendents, Principals, Teachers Attending the North Dakota Educational Association.] The board of education in special or independent districts, or the school district board in any common school district is hereby authorized to allow the superintendent, principal or teachers of the schools under its charge to attend without loss of salary, any meeting of the North Dakota or other educational association which may be held within this state while the schools of such district are in session.

Introduction

This Course of Study is published in compliance with law and is intended for the use of superintendents, teachers, pupils, and school boards. It should be studies at training schools, teachers' meetings, and general meetings of school officers. In the school room it should be used daily for reference.

Its aim is—

First. To provide a practical outline which will give the pupils of the common schools a good elementary education.

Second. To introduce only such branches as should be taught in the common schools.

Third To simplify classification, promotion and graduation, thus simplifying the work of the teacher and encouraging the pupil to complete the course.

Fourth. To prevent waste and aimless work by furnishing a common basis for work in elementary schools, to superintendents, teachers, and school boards, and to put all the common school work of the state on one plan, in order that supervision may be simplified and strengthened, that teachers may know definitely what is required as to amount of work and classification, and that pupils may be properly aligned in their studies and credited for work accomplished.

This course of study is presented to the superintendent and teachers of North Dakota in the hope that it may be of some service to them in doing the work which the state calls upon them to perform. We realize that this course has its imperfections and we trust that future revision may eliminate them; however, we feel certain that the thorough-going superintendent and teacher who believes in doing things will find this course at least helpful.

The course will not go of its own accord, neither will it do the work of a teacher. It will not make up for the deficiencies in a teacher's preparation. However, it will indicate fairly well what ought to be done and to some extent will help to show how the work should be done.

It is not intended to handicap anyone, nor to destroy the individuality of the teacher. Each teacher should know the purpose of a school, the subjects to be taught and how to teach them.

You will look upon the course of study as something which intelligently used, will be a material aid. Conditions in various parts of our state differ very materially, consequently, we may not hope for the same results everywhere.

HOW THE COURSE OF STUDY IS TO BE USED.

In its relation to the pupil, "the Course of Study is designed as a measuring rod to determine at what point in the eight years' work a pupil has arrived. It should not be used as a Procrustean bed on which to stretch the work of the school in order to secure uniformity."

To the teacher, the Course of Study is intended to be not so much the master as the assistant, the helper, the friend. The aim has been in each subject to furnish a guide to a natural and helpful order of development of the topics in that subject. The Course is not designed to take the place of the textbook but to help toward an increasingly thoughtful, intelligent use of the text book. The Course can not be a text book of pedagogy; still there are frequent suggestions of method or device as well as matter—not to bind the trained or experienced teacher who after thinking it over decides that she knows what is for her and her school a better way, but to suggest to the teacher in doubt one way to go about the problem.

For those who have not the advantage of Normal training, some help can be secured thru the institute, the teachers' training school, the reading circle, the teachers' association, and many of our methods are gained in the hard school of experience and possibly at the expense of the children committed to our care. We cannot but feel that the great need of our day is more thoro academic training. Not until a mind is itself stored with knowledge is it in a position to impart knowledge to others; no amount of training in method will make up for deficiency in a teacher's personality or store of knowledge. However, no true teacher will undertake a work of such vast responsibility without an attempt to secure a knowledge of the underlying principles of education and a comprehensive idea of the methods which have been found helpful by othrs. Good schools can be possible only when taught by thoroly educated and professionally trained men and women.

There are a few standard books which every teacher should possess and master, among them being Page's Theory and Practice, White's Art of Teaching, Seeley's New School Management, and some good history of education. It goes without saying that to these books should be added the books chosen for any given year by the Board controlling the Teachers' Reading Circle. Every teacher too should take one or two Teachers' magazines, and some good paper of current events. Not everything in any of these books or papers can be used by any one person; but every one of these helps will contain some suggestions for each one, helping him to understand his pupils better, to plan his work better, to secure the attention and interest of his pupils, and to arouse their enthusiasm for all that is useful, beautiful and noble.

WRITTEN REVIEWS.

Some difference of opinion has arisen as to the advisability of and benefit derived from the monthly written reviews. It seems to be the concensus of opinion among the county superintendents that written reviews each month are a good thing and in deference to them the reviews will be continued. However

if the reviews and written tests are to be ends in themselves, there can be no doubt that evil will result; but if they are used as one of the means to an end, much benefit can be derived. County superintendents should exercise great care in directing the use of these reviews so that pupils and teachers will not get the idea that these are all there is in an education. The chief object of a written review should be to fix more in the mind of the pupil the subject matter which he has covered and to give him power to express in an orderly manner the substance of the lessons covered. It is not to be understood that the reviews are always to be written—in fact, in every examination part of them should be oral; one month have the reviews in arithmetic and geography written and the rest oral, and the next month have history and language written, etc. Some parts of any review may have to be written but in such a case these parts could be written on the board as part of an ordinary lesson. In any case the reviews must break up the ordinary work of the school as little as possible.

GRADES FOR THE MONTH.

The grades for any month should be based on the daily work of the pupil as well as on the standing in the review. Some superintendents ask their teachers to consider the two, review standing and daily work, equally in determining the standing; the general sentiment however seems to be to give the daily work double weight, i. e., to consider daily work as two-thirds, and test standing one-third in determining monthly standing.

FIRST AND SECOND YEARS.

It is the opinion of the Department of Public Instruction that monthly written reviews should not be required of pupils in the first and second grades.

EXAMINATIONS FOR PROMOTION.

Tests for promotion: On completing the nine months' work outlined for any one year of the elementary course, no matter during what term of the school year this may occur, a complete review of the year's work and examination for promotion should be given. Superintendents, teachers, and school officers should encourage pupils to complete the month's, year's, and eight years' work in order to counteract as far as possible the common evil of irregular attendance and absence at beginning and close of term.

Final examinations. Final examinations for the eight years' work shall be held at the county seat or at such places as may be designated by the county superintendent of schools. Seventh year pupils having completed physiology, may attend these final examinations and passing, shall receive a certificate to that effect.

Final examinations should be conducted under the personal supervision of the county superintendent of schools, or such deputy as may appoint, and should be conducted in the same manner as county examinations of teachers.

Final examinations will be held the third Thursday and Friday of December, March and May.

Questions. Questions should be:—

First, a review of the most important facts and principles of the work accomplished.

Second. They should be framed in simple and clear language.

Third. They should admit of definite answers.

Fourth. They should not require too much work.

In order to strengthen supervision and aid teachers, all questions should be furnished by the county superintendent of schools.

Papers passed in at monthly written reviews shall be graded by the teacher, but any or all sets may be reviewed by the county superintendent, at his discretion. Sets of such review papers should be filed by the teacher for the superintendent's inspection.

The final examination papers shall be graded by the county superintendent or his deputy.

Records, diplomas, and certificates of promotion. The record of monthly tests, tests for promotion, and final examinations shall be kept by the teacher in each school. This should be a durable record.

Certificates of promotion shall be given pupils completing a year's work. These may be issued by the teacher, unless otherwise ordered by the county superintendent of schools.

A common school diploma shall be granted each pupil completing the eighth years' work by the county superintendent of schools, who shall keep a record of all such diplomas issued.

Historical

During the years 1898 and 1899, J. G. Halland, who was then Superintendent of Public Instruction formulated a course of study for the common schools of this state. The course met with immediate popularity and was continued in use in the public schools for about five years. In 1903 State Supt. Stockwell began a revision of the course then in use and appointed a committee of county superintendents to assist him in the work. The committee met with Supt. Stockwell in 1903 and organized for the work. The revised course of study was completed in 1904 and placed in the hands of the teachers during the fall of that year. Like the course as originally prepared, it was successful beyond the expectations of those who prepared it. Owing to the changed conditions the course was again revised in 1909 by Supt. Stockwell and a committee of county superintendents. That edition has been in use since 1909 and has generally given excellent satisfaction.

During the last three years there have been many important changes in courses of study throughout the country and to keep pace with the latest and best in education, it was found necessary to revise or rewrite our course of study once more. This work was undertaken just before the close of Supt. Stockwell's term of office. The committee on course of study appointed by Supt. Stockwell was continued. The members of the committee were Supt. F. R. Barnes of Richland County; Supt. Laura B. Sanderson of LaMoure; Supt. Minnie J. Nelson of Barnes; Supt. Dalton McDonald of McHenry, and Supt. Martha P. Tatem, of Williams. The Superintendent of Public Instruction placed Prof. B. A. Wallace, who has charge of the course for rural teachers in the State Normal School at Valley City, in charge of the work of revising the course of study. The committee and Prof. Wallace have put a great deal of hard work on this revision and to them is due all the credit for the appearance of the revision of 1912.

The following courses were prepared by the persons named: Domestic Science, Miss Clara O. Smith; Manual Training, Prof. Selden; Music, Miss Amidon; Reading, Supt. Sanderson; Nature Study, Prof. Schmidt; Spelling, Prof. Schmidt and Supt. Barnes; Elementary Sociology, Prof. Gillette. Prof. Wallace asks me to express his appreciation for the help so generously given by so many of the school people of the state, for valuable assistance and suggestions which have aided materially in his work.

The State Superintendent is under great obligation to the members of the committee and especially so to Prof. Wallace, who has given this work several months of profound study. The course as it now stands is the direct result of Prof. Wallace's labors. The course follows as closely as possible the suggestion of the Committee of Seven apopinted by the State Education Association.

It is hoped that this course of study will prove as successful as those issued in previous years.

E. J. TAYLOR,
Superintendent of Public Instruction.

June 1st, 1912.

<table>
<tr><th>Grade</th><th>Reading</th><th>Language & Grammar</th><th>Arithmetic</th><th>Geography Nat. Study Agriculture</th><th>History, Elementary Sociology</th><th>Physiology</th><th>Spelling</th><th>Manual Training, Domestic Science</th><th>Civics</th><th>Penmanship</th></tr>
<tr><td>I.</td><td>*10</td><td>*5</td><td>*5</td><td rowspan="2">For Twelve Weeks

For Remainder of Year</td><td colspan="2">Physiology---3
Hist. or Soc.---1
Geog. or Nat. St.---1</td><td rowspan="2">With Reading and Language</td><td rowspan="6">See No. 6 in Correlation and alternation</td><td rowspan="5"></td><td rowspan="3">All Grades together</td></tr>
<tr><td>II.</td><td>10</td><td>5</td><td>5</td><td colspan="2">Hist. or Soc.---2
Geography or Nature Study---3</td></tr>
<tr><td>III.</td><td>10</td><td>5</td><td>5</td><td colspan="2">Hist. or Soc.---2
Geography or Nature Study---3</td></tr>
<tr><td>IV.</td><td>5</td><td>5</td><td>5</td><td rowspan="3">5 One-Third given to Nature Study</td><td>For Twelve Weeks</td><td>Phys.---4
Spell.---1</td><td rowspan="3">In place oi Physiology once a week and of History twice a week</td><td rowspan="4">One period each day</td></tr>
<tr><td>V.</td><td>5</td><td>5</td><td>5</td><td>For Remainder of Year</td><td>Hist.---3
Spell.---2</td></tr>
<tr><td>VI.</td><td>5</td><td>6</td><td>5</td><td></td><td></td></tr>
<tr><td>VII.</td><td>5</td><td>5</td><td>5</td><td rowspan="2">5 One-Third given to Ele. Agr.</td><td>5</td><td>5 (until March)</td><td rowspan="2">One-third of Language and Grammar time</td><td rowspan="2">5 (until March)</td></tr>
<tr><td>VIII.</td><td>5</td><td>5</td><td>5</td><td>5</td><td></td></tr>
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Numbers given represent number of recitations each week.

*See No. 3 in Correlation and Alteration; also see Course in Arithmetic,—the time thus saved from Arithmetic can be given to Reading, Word-Drills, Language, Nature Study, etc., as the teacher thinks best.

CORRELATION AND ALTERATION.

The purpose of correlation and alteration are:—

To reduce the number of recitations daily thus allowing longer recitation periods.

To increase the size of classes, thus increasing the interest of the recitation.

To bring together the work of related subjected, and thus unify and interrelate the various parts of the pupil's knowledge.

The chief correlations and alterations are:—

1. That reading as the means of investigation in the other subjects receive two recitations daily in the first three grades; that it receive further emphasis when the pupil is introduced to the textbook in any subject by using the text as a reader in the recitation period in that subject, for so long a time as is necessary to the pupil's intelligent use of the text as a means of getting lessons.

2. That language as the study which emphasises the expression of one's ideas be correlated with all the other subjects and the curriculum, i. e., in every subject the teacher pay much attention to the full and accurate expression of the pupil's ideas and that on suitable occasions she require frequently the giving of oral or written summaries and the outlining of lessons; and that on the other hand the language lesson instead of going far afield for some artifical subject for the day's lesson shall generally take as its material something right at hand in the reading, nature study, geography, history, or other lesson.

3. Many teachers prefer to combine reading and language in the lower grades, especially the first grade. The committee preparing this Course regards this as perfectly proper; this would give reading and language together three periods daily. This should not mean, however, the neglect of either subject.

4. In the geography course, is frequently suggested the advisability of studying certain regions by following some historical expedition or journey through those regions. It is urged that the teacher be alive to other opportunities for this, than those mentioned, and wherever she finds in her own library or the school library stories of history or fiction that will help in fixing important locations or understanding other large topics of geography, she should use them. On the other hand, much of history to be at all understood by the pupil, needs to be located geographically. So, often in studying geography, the pupil should be using his history text, and still more often in studying history, he should have his geography in hand.

5. That about one-third of the time in geography in the seventh and eighth grades be given to elements of agriculture, sometimes a single recitation or two, sometimes a week's work.

6. That the period after recess in the afternoon on Friday of each week be given to domestic science for the girls above the third grade, to hand work, elementary manual training, for the smaller pupils, each class to close one recitation from the regular schedule on that day, at the place where it can best be spared. The older boys should have this time devoted to manual training; if this is not possible, they may devote this time to experiements or other study of agriculture.

7. That the first three grades be combined in one oral recitation daily, to cover on various days the work in physiology, nature study, home geography,

history and elementary sociology. By this plan during three winter months, physiology would receive three periods weekly, nature study one, and history stories one. During fall and spring, nature study and home geography could have three periods weekly and history and elementary sociology two.

8. That in the fourth and fifth grades (and possibly sixth) the classes recite together in physiology and history, taking physiology four days weekly and spelling one day weekly for three months, and history and elementary sociology three days weekly and spelling two days weekly for the remainder of the year.

9. That all grades be combined in one period daily in penmanship.

The committee believes that all these suggestions can be carried out without interfering in the least with the strict grading of this school. Probably too, they would be all that is necessary in a school of five or six weeks. It occasionally happens tho that one school has seven or even eight grades. While we regard it as unfortunate that a pupil should have in any subject eighth grade work before he has the work of the seventh, still in the school of eight grades to insist on strict grading would be to insist on too many recitations for really successful work. So the committee would recommend to the teachers of such schools the alteration of seventh and eighth grade, history, combining the two classes in history to do in one year the work of the eighth grade and the next year the work of the seventh grade, or vice versa. Likewise with the geography of the fifth and sixth years and again the geography of the seventh and eighth years.

Further we would recommend the combining of two small classes in reading, e. g., third and fourth, or seventh and eighth, or sixth and seventh, or fourth and fifth in the belief that whatever is lost thru the lack of strict grading would be more than made up by the added interest of larger classes and the longer time allowed for recitation. This same principle will often apply to the work in other subjects and too would often apply to the recitations of certain classes for a day or two when they would not apply for the same classes permanently. The teacher should be awake to the opportunities this plan offers.

Another suggestion often available in any school and almost necessary in a crowded program is the possibiity of caring for two casses at the same time. E. g., two arithmetic classes can easily be conducted at the same time if the teacher so plans that the explanation of new work for one class falls on the day that the other class is doing what is largely drill work. Again the teacher can be pronouncing words in spelling to two or even three groups of pupils at the same time. Or written work in some subject,, or map drawing in geography or history will often save a considerable part or all of a period of the teacher's time, for application elsewhere.

In closing it should be said that the committee does not think that every one of the suggestions made and no others are suitable for every school. It does believe however that most of the suggestions here made are applicable to most of the schools of the state, and that every teacher should make use of these or similar plans as are adapted to her particular school, to the end of bringing into relation to each other the related subjects of the course, and of reducing the number of classes and at the same time increasing the size of the classes to a point where interest is easier to maintain.

Moral Training in the Public Schools

There is and has been for some time a growing feeling that American youth are not receiving the moral training they should receive. It is complained that the home of today does not offer the training along this line which it might and should offer. On the other hand, parents frequently if not generally attribute much of the fault to the public school. A recent legislature in our state has evidently thought that the school ought to do more than it has for it passed a law requiring definite moral training in the public schools of the state.

Teachers too are more and more feeling that the school is failing to rise to its opportunities for moral training—and that means failing to rise to its responsibilities, for our responsibilities are measured by our opportunities. Articles are continually appearing in teachers' magazines, books are published in increasing numbers, on the one hand to urge the importance of moral education, on the other, to suggest ways and means of advancing moral education. These facts together with the legislation referred to above have led the committee in charge of preparing this Course of Study to make the following suggestions regarding this work.

Among the means of moral training at the teacher's command are the personal example of the teacher, the regular discipline of the school, the opportunities arising in the everyday lessons of the school, Bible readings, and direct ethical training.

The most potent influence for good in the whole life of the school is the personal example of the teacher, "In the training of the young much more depends on what the teacher is than on what he says." A teacher might be considered a good disciplinarian, might read the Bible to his pupils daily, and talk with them frequently about the moral lessons in history or literature, and yet throw away the good these do by the bad example he sets. And let no one because he does not swear, or drink, or chew tobacco, sit back and think, "That's true but it doesn't apply to me." Personal example is not confined to the avoidance of three or four big evils which no teacher thinks of committing. It applies to everything big or little which those dozens of watchful eyes and ears can note. Is the teacher personally neat or untidy? Is her desk kept in order? Is she careful in her use of English? Is she careful in her written work? What is her habitual attitude toward accuracy, knowledge, scholarship? Is she courteous, charitable, and tolerant of the ideas of others? Is she reverent toward things entitled to reverence? Is she interested in her work and in her pupils?—All these and many more are parts of the teacher's example. And perhaps more important than all are the standards and ideals that color all her thinking, all her views of life, and thru her color the thinking and help to determine the political, social, business, and moral standards of her pupils.

The teacher should be alive to the opportunities continually arising in the work of the various subjects. And what subject does not offer these opportunities? "History is philosophy teaching by examples," and when history is taught sensibly, when the pupil is thinking of what some historical personage or group of people did, why they did it, whether it was the natural and proper thing for them to do, and how it turned out for them and for us, he is at the same time forming moral judgments of social and individual conduct. The literature of the reading and language periods is replete with illustrations of moral principle, frequently expressed in beautiful wording or imagery. Civics and arithmetic are continually presenting the acts and doings of people about us, the one in civic and political life, the other in business. To many of these transactions there is a right and a wrong, a way people should be expected to do, a fair way to settle the business deal or the political question at stake. Home geography and nature study arouse the child's interest in the plant and animal life about him and can hardly be studied without resulting in more humane treatment of animals, and a feeling of our responsibility for the welfare of things around us. It would be impossible to study these subjects without the pupil's getting *some* of these lessons in morals. But how much more will he get if the teacher realizes the possibilities and is on the lookout for them. Not however that she needs to preach or lecture. Her problem is generally not to state the moral principle involved, but to so prevent the lesson that the pupil perhaps unconsciously forms the right moral judgment, sees the right or the danger a little more clearly, or catches a glimpse of an ideal higher than any he had ever dreamed.

But character is not a question merely of knowledge and of ideals; it is just as much a question of habit. It is here that the discipline of the school functions in making strong or weak characters. "The prime end in character is related to conduct is the power of self-control and self-direction; hence the guiding end of school discipline is to train pupils in habits of self-control and self-direction, i. e., to prepare them to be self-governing men and women in life." When we realize and get our pupils to realize that in their punctuality, regularity of attendance, promptness in the eecution of assigned tasks, accuracy, neatness and system in their work, regard for the rights of others, obedience to constituted authority, etc., etc., or the opposites of the characteristics, they are not so much meeting or failing to meet the requirements of the moment, as forming their habits for life,—then and then only has dicipline its highest value. It may be added that this view of discipline held before teacher and pupils makes discipline not harder, but easier, to secure.

In the homes of a generation ago it was often the custom of the father to read to the assembled family at the beginning of each day a chapter from the Bible; to many teachers this seems a natural and appropriate way to begin the day's work of the school. It not only gradually acquaints the pupil with the Bible and the sources of numberless literary allusions, but each day has a beneficial effect on the spirit and attitude of the pupils for the day. Many an individual can testify to the lasting influence on character of the Bible readings in the school he attended. For the teacher who believes thoroughly in the Bible, whose attitude toward it is reverent, and whose pupils have or can be led by

her to have this same attitude, the Bible is a storehouse of illustrations selected for their inspiration to higher thinking and nobler living.

Another means of moral training is by supervision of the playground. The importance of this means is increased by the fact that without supervision the vicious conditions of the playground often go far to undo the good work of the school along moral lines. The outhouse, unclean and marked with obscene pictures; sometimes the back of the school house marked in the same way; the bad language of the recess-period; the unfair conditions of play—older ones crowding the little folks out of the way and out of the games are all too common in city, village and country. The law regarding sanitation and decency is plain; school-boards should be gotten to put it into effect; then the teacher should endeavor to create such a feeling among their pupils that the conditions once made right are kept right. An increasing number of teachers find that by sharing the plays of their pupils during intermissions, not only do they gain neded recreation and fresh air themselves, but at the same time the bad language, the quarrels, the impositions of larger on smaller pupils, the opportunities for low stories and other vicious conditions are largely done away. This does not mean that the teacher shall be critical and fault-finding. She is out with the pupils to help them have a better time; she teaches them new games; she tries to get everyone into those or some other games; she overlooks the little slips and is far more ready to see good intentions than to see wrongdoing. Gradually her mere presence with an occasional glance or word brings about a steadily increasing fairness, kindliness, and courtesy toward each other, and a healthier moral tone to the play-period.

In the above outline it has been impossible to do more than to call attention to a few of the ways in which the school training can contribute toward moral training. The thoughtful teacher will wish further help and suggestion; to her any of the following books will be of service:

For a general view of the problem of moral education in school, Dewey's Moral Principles in Education, Houghton, Mifflin & Co., 35c.

For a helpful discussion of the teacher's personality and the school discipline as agents in moral training, White's School Management, American Book Co., $.100.

For aid in making elementary civics and social studies teachers of morals, Hill's Lessons for Junior Citizens, Ginn & Co., 50c; Dunn's Community and Citizen, Heath & Co., 75c.

For a systematic arrangement of moral lessons with some lesson assigned for each month of each grade and a story to illustrate it, or a memory gem to enforce it, Cabot's Ethics for Children, Houghton, Miffin & Co., $1.25.

Other books of value in furnishing suggestion or illustration are Mowry's Talks with my Boys, Silver, Burdett & Co.; Wiltse's Kindergarden Stories and Morning Talks, Ginn & Co., Stories from Life, American Book Co.

Reading

GENERAL DIRECTIONS.

The child is primarily an active and feeling rather than a thinking being. In reading there is opportunity for the development and expression of taste, appreciation, enthusiasm, sympathy and sensitiveness to the best things in life. The artistic instincts should be developed and trained and the motor impulses guided into right channels of expression.

Reading is the most wide-reaching acquisition made by the child in school. No agency is capable of becoming so effective under wise teaching for at once developing ideas, feelings and habits of action. No study, then, deserves more careful consideration or demands more carefully elaborted plans than this. For in actuality no other study, when unwisely presented, more widely and effectively conduces to bad mental habits.

It must begin, and at every point proceed, on the basis of vigorous, genuine thinking on the part of the child, and the life of such thinking is constant, clear, vivid imaging. The reality and character of such imaging, the teacher should unfailingly put to the proof in some way—by questioning, by requiring drawing or construction, by dramatization or other form of expression. Note the sentiments aroused by the passages read, as to the expression of these by the pupils own utterance.

Reading matter should be chosen with wise discrimination, as to its adaptation to the children's intelligence, taste and effort, alike in thought, in spirit, in phraseology. Ambitious lists of advanced books for reading prepared for ideal grades, perfectly trained, should be avoided by all wise teachers. It is better to do well in the lower ranges, than to strain after that which can not be mastered.

Close alliance should be kept between the reading matter and the children's active interest—other studies, seasonal changes, attractive elements of environment, experiences etc.—that is, if the books contain selections bearing in a clear, stimulating way on the current work in history, geography or science, or in outdoor phenomena, such selections should be sought out and studied, where and when the association is close and suggestive. Material for Thanksgiving, Christmas and other special days may thus be accumulated; information on places and people may be brought together when most needed, and special attention should be given to the proper interpretation and expression of the child's enthusiasm and tendencies to action. This is meant to correct the mechanical use of the reader, by which the selections are taken in order with no reference to bearing on strong general interests.

The material chosen for the reading hour should, as a rule, be from the "literature of power, writings that by reason of their purity, beauty and spiritual strength have become classics." Such as will stimulate the pupil to love the

truth, appreciate the beautiful, and choose the good. Books which contain information alone, should never be used for oral reading but only as reference works. The monotonous statement of facts, however important, can never produce good reading.

No text book, which is not of itself a literary whole, is to be taken selection after selection, in the order of the book. But rather the contents of all the readers should be analyzed, and tabulated or indexed together, and the selections assigned when and where they have a clear and significant bearing. The real test should be the practical success of the teacher in using the book in question. If the class does not become interested, or the teacher does not find it available, it should be discarded, even though in the most approved lists.

The voice should receive attention from the first, and all proper efforts made to help the child to control and improve it for expressing thought and feeling—his own or the author's. Drills for enunciation and articulation will be needed in every grade. These are to be given on words so difficult as to need special attention and on words on which the children are found to fail of good pronunciation. Drills should be had on groups of words, to master difficult combinations and to secure smoothness. In pronunciation make more of pitch of tone than of stress to indicate accent. This enables the child to be very deliberate and distribute his efforts so as to give each syllable its full value. The first few moments of each exercise may well be given to a vigorous exercise along these lines, especially on words occuring in the immediate lesson.

The voice is the instrument of thought and emotion. Clear, sharp imagination is essential to either. This makes concrete presentation and motor expression important; hence, in every grade, selections appropriate should be acted out, that is, be given pantomimic and dramatic representation.

Suggestions on Teaching Primary Reading.

Starting Point.—Try to settle definitely in your own mind what the child already knows that will help him in learning to read. You will find that the average child knows several hundred words, can pronounce them, recognize them when spoken, and is able to use them in easy sentences. You must build on this foundation. Remember that children have little power of continued attention where they have little interest. Your first aim must be to create interest and pleasure in the reading lesson. Make the change from hearing and speaking words to reading and writing them just as easy and unconscious for the pupil as possible. Keep difficulties out of sight, and do not worry or weary the child.

Aims.—1. To recognize the written and printed forms of the words which the child has already learned thru hearing and speaking.

2. To combine elementary sounds into words and to separate words into their proper sounds.

3. To write words and combine them into simple sentences.

4. To read and talk in natural, pleasant, animated tones.

5. To teach the perfect expression of the thoughts, feelings and impulses gained from the written symbols.

Method.—Do not attempt to follow any one method. Combine word, sentence and phonic methods. A live teacher is greater than any method. You cannot teach the method of any one else; you must teach by your own method, faithfully striving to get all the help and suggestions you can from every reliable source. Use the blackboard exercises freely to familiarize the pupil with the symbols of his ideas, thoughts and feelings and the expression of these.

Practice in Reading.—If you teach properly and are interested yourself, the pupils will find the greatest pleasure in learning to read. Encourage rather than criticise. Praise judiciously. Plan for variety. Above all, let the children READ. Much easy reading will give them confidence, ease, accuracy. Attempting to read what is too difficult causes halting, stumbling, discouragement and sullenness. Supplementary reading in all grades is a prime necessity. Every pupil should read thru a primer and two first readers or their equivalent before going on to a second reader. Have much sight reading, that is, the reading of easy lessons and stories without preparation. Such reading should be very simple so as not to discourage the pupil. It has a charm of novelty and creates interest in reading. Do not have much concert reading. Select one pupil to stand before the class and read the entire lesson. If the lesson is short and you have the time, let all do this. Vary the practice. This gives interest in the lesson.

Seat Work.—Always assign lessons carefully and definitely. Aim to assign some expressive work—copying or illustrating by drawing and painting, card work, paper folding, cutting and making objects described in the lesson etc. —in connection with every lesson. Children are fearless with pencil and drawing paper. They will attempt to illustrate any object, no matter how difficult. They will paint or draw a ship, a locomotive, a battle—anything with life and movement and color in it. Encourage these crudest efforts. Cut out words in large type and let pupils build simple sentences with these. Let all their seat work have a definite purpose. Do not encourage or permit dwadling, puttering and killing time. If children become tired, change their work, give them a short exercise in gymnastics, or let them go out doors and play a few moments, if the weather is favorable.

Supplementary Reading.—From the very first lesson the teacher of reading should keep in mind two things—1. Reading is the most important branch in the lower grades, for it is the door thru which the child must pass to obtain a knowledge of language, literature, history, and almost the whole realm of human learning and achievement.

2. A love for good literature, both poetry and prose, should be fostered and cherished. That pupil who leaves the public school without love for good literature has been poorly taught and has failed to get the very best thing which schools ought to give him. These results cannot be attained if children are confined to one series of readers for the seven or eight years of school life. In selecting material suitable for supplementary reading in the primary grades observe the following:—

1. It should be interesting to the child.

2. It must be truly child like, that is simple and full of fancy.

3. It must form morals, that is, it must introduce persons and matters which call out moral judgments of approval or disapproval.

4. It must be instructive and inspiring, that is, it must give useful information and awaken sympathy and enthusiasm.

5. It must be of permanent value—one children will love to read again and again.

6. It must be a connected whole.

7. It should serve to develop all aspects of the child's nature, his thoughts, feelings ,and volitions, his intellectual, emotional, moral and religious endowments.

Phonics.—The child can do but little independent reading without a knowledge of phonics. The sooner than that he comes into possession of the power to find out new words for himself, the better. The teacher who would do successful work in this important phrase of teaching reading, must base it upon some definite, carefully arranged plan. The aim is to teach the child to connect hearing and speech.

The phonic exercise at first forms no part of the reading lesson, and should always, during the reading recitation be made subservient to thought getting.

Phonic drills train the ear to distinguish the sounds of which words are composed, the eye to recognize the symbols which represent sounds, and the vocal organs to enunciate distinctly, not only the elementary sounds but combinations as tr, pr, fl, gr and sp.

The first result to be gained in phonic drill is to train the child to recognize the words when sounds are given. Let the teacher give orders by slow pronouncing or sounding, thus: "Shut the d-o-o-r," "R-u-n," "Touch your n-o-s e,' "Play b-a-l-l," "Come to m-e," etc. This exercise should continue for only two minutes at a time, twice a day.

After some skill in word sounding has been acquired, the symbols may be presented. The pupil is asked to repeat some word very slowly, as m-e, to separate the sound, and the first letter is placed on the board and he learns that the sound "m" is represented by the letter m. Continue this work thoroughly, until all the consonants are learned. Keep symbols upon the board as they are taught, for rapid drill work.

Teach key words as at, an, ed, all, in, ing, etc. Combine with consonant sounds already learned and form new words as c-an, m-an, r-an, b-all, f-all, t-all etc. Give short drills in this which enables them to quickly recognize new words.

Teach consonant digraphs as, ch, sh, wh, th, gh, ph, ng, ck. Teach vowel digraphs as, ay, ey, oa, ou, ow, ew, and au. Stories often prove effective in fixing the sound in the mind of the child. The sounds are likened to those heard in nature or the routine of daily life.

An apt illustration brightens the drill, helps the child to get the sound correctly, and aids in its retention. The stories should be short and based upon

the child's interest. A story of an engine in connection with the sound "ch." a cross cat in connection with the sound "f," of a cow in connection with the sound "m" etc.

Proceed slowly, review thoroughly, review all simple and blended phonograms and sight words, drill on word families and in separating words into sounds as, smaller (sm-all-er,) brown (br-own) etc.

The long and short sounds of vowels are also to be taught. The letters in a word should not be defaced by markings to indicate their sound. The place for this comes later.

At the end of the second year if the child has had this drill in phonics the teacher will seldom be called upon to pronounce a word for a pupil. In meeting with a new word, the child examines it to see if there is any part of it he knows, as in the word "smaller." In this word he discovers "all." Knowing the sounds of s-m and e-r, he is able to pronounce the word.

The "Key Method of Teaching Phonics" published by the School Education Co., of Minneapolis will be found very helpful in teaching this subject.

Devices.—Sheets of britol board can be procured at any printing office and cut into cards of a convenient size. On these may be written in large script the new words as they are learned. The teacher will find these very convenient for rapid drill work. Phonic cards may be made in this way also.

Small printing presses can be had by sending to A. Flanagan, Chicago, Ill., or to the Northwestern School Supply Co. of Minneapolis, Minn. These cost about $1.50 and are invaluable to the primary teacher.

When the child has made the transition from script to print, the teacher will find the printing press helpful in making reading charts for use in her school. Pictures of animals, children, etc., can be saved from magazine covers, calendars, etc., and pasted on a sheet of cardboard and short interesting little stories printed below, thus furnishing an abundance of bright, new reading matter.

Expression cards can be made in this way also, printing upon them such expressions as this: "The big apple," "The naughty, naughty kitten," "A big, black dog," etc.

FIRST YEAR.

FIRST MONTH.

Object.—To recognize at sight the written word and to pronounce it readily as a whole; to acquaint the child with the written and printed forms of words that it has known before only by sound.

First Step.—Make the child feel at home. Do not hurry him into a reader. Get him to talk freely about some familiar object, picture or experiment. Avail yourself of his native interests and passing enthusiasms. When he is intensely interested in the object, write the name of it on the board. Ask the pupil to look at it carefully. Write the word several times. Have him shut his eyes, then write the word several different places on the blackboard and let him find them. Help him write some simple word at first. Encourage his crudest efforts. When five or six words have been learned, the article "a" and

"the" should be prefixed, as, a dog, a man, a cat, a cow; the dog, the man, the cat, the cow. The child should be taught to pronounce each group as one word, pronouncing "a man" as though it were a word of two syllables. Place all new words upon the board, adding to the list from day to day. In every recitation give a drill on these words, pointing rapidly first to one and then to another, while the children pronounce them rapidly and accurately. Vary the exercises by having one pupil point to the words while another one pronounces them. Be careful about articulation at the start.

As soon as a sufficient number of words have been learned, combine into sentences. Review these sentences until the words have been firmly fixed in the child's mind. Teach new words as wholes but soon begin to teach the sounds. Careful drill in sounding letters and combinations will very soon enable the child to pronounce words independently. About twenty words, an average of about one new word a day, is sufficient for the first month's work. They should be able to write several of the simpler words on the blackboard or on unruled paper. Let them write large and round.

The manual that goes with the Summer Readers, published by Frank D. Beattys Co., New York, is a fine outline for teaching primary reading.

SECOND MONTH.

Proceed as in the first month. About thirty or forty new words can be learned this month. Make constant use of the blackboard. If the children drawl or read in an unnatural tone, you are at fault in your teaching. Vary the sentences on the blackboard constantly, so that the pupil may not repeat the sentence from memory. Be sure that the pupils grasp the thought of a sentence before they try to read it aloud.

As pupils begin to write words from memory, be very careful that they write them rapidly and correctly. Train the pupil to see the entire sentence and then speak it. Do not teach the pupils to read as they talk unless they talk correctly. Teach them to talk as well as read.

Let the pupils illustrate as many words as possible as they learn them. Drill every day in phonics.

Memorize short poems and songs. Make expression your chief aim. Teach politeness by requiring attentive listening, freedom from interruption and courteous treatment of each pupil.

THIRD MONTH.

The pupil may now have a primer and he should be able to read several pages at sight. Make constant reference to the pictures in the book, as they suggest the story the pupil is to read. The pupils should read twice a day at least. If the school is large, the recitation may be short. A short, wide-awake, interesting exercise is far better than a dull, prosy, long one. Besides the primer in daily use, there should be two or three other primers for supplementary reading. Much use should be made of the blackboard still. Encourage pupils to talk freely of what they read, to dramatize little stories, to illustrate parts of the lesson, to cut, model or make things described in their reading lessons.

Precede each reading lesson with a word drill. All new and difficult words are written on the blackboard and a short, quick drill is given on these. Give special drill in phonics also.

Make use of Thanksgiving in the work of this month. Songs, poems and stories cluster about this day.

FOURTH MONTH.

Do not hurry pupils into the first reader. They should read several primers first. Remember that the purpose of teaching reading is two fold, to teach the child to get the thought and feeling and to express these to others. The first is silent reading; the second is oral reading. The silent reading must precede the oral. Before permitting the pupil to read a sentence aloud, help him to read it silently. Never permit the reading lesson to become a mechanical grind, but emphasize the story side of the lesson.

Read to the children from the choicest juvenile literature. Cultivate the power of observation and attention. Let pupils tell, write and read about things they observe and actually experience. Make constant use of illustrations by means of modeling, drawing, making and painting.

Let pupils act words and stories. Let all the work be done under the spur of interest and with heartiness and good will.

Read the harder parts of several primers. Much drill on phonics. Word drills the same as in the previous month. Let Christmas be the spirit of this month's work.

FIFTH MONTH.

Begin the first reader. It is better to give a word drill on all new words when assigning the lesson, then test the pupil's ability to name the words the first thing when the class is called to recite. Master all new words before attempting to read them aloud. Do not call it reading when a pupil hesitates before speaking the words. Do not allow pupils to assume careless, lazy positions when reciting. Give them plenty of easy, interesting and profitable reading matter. It is better to read one first reader part thru and then take the first part of another, afterward completing the first book.

The teacher should always use model language. Do not presume that a teacher can inspire the child with a proper use of language, and at the same time make use of decidedly faulty English himself. Give special attention to articulation and enunciation.

Make use of the new year and winter in song and story. Introduce short stories of Eskimo life. Let them draw, model and cut the Eskimo house, sleds, etc. Drill in phonics the same as in previous months.

SIXTH MONTH.

Continue phonic drills. Word drills should precede each lesson. Be sure the pupils get the thought before they try to express it. Let them tell the story of the lesson in their own language. Review the hard words. Drill on all new

words. Much work in dramatization of stories should be done. See that the pupils are supplied with plenty of easy reading matter. Read only easy parts of readers. Make use of Washington and Lincoln's birthdays in the work of this month.

SEVENTH MONTH.

Continue the work of former months. Vary the general plan of recitation by occasionally letting pupils read several preceding lessons at one recitation, each pupil reading a whole page or lesson. In this exercise do not dampen the pupil's ardor by stopping him to correct minor mistakes. Let the work be animated and pleasant. Children should read only the best juvenile literature. Reading should all be taught as an expression of inner experience thru vocalization. Give great attention to silent reading. After they have read the easy parts of several readers take the harder parts.

Word and phonic drills as before. Copy written work from the blackboard. Write words from memory. Insist on all written work being neatly done. Poems and stories appropriate to the season.

EIGHTH MONTH.

Review first readers, making sure that pupils have mastered all the words. Give attention to tones, position and articulaion. Let pupils read such simple poems as Little Boy Blue, Mary's Lamb, some of Aesop's Fables and the Ugly Duckling, Cinderella, Red Riding Hood, etc.

Vary the work. Give specific seat work and see that the children perpare it. Encourage the illustration of parts or the lesson by means of drawing, painting, cutting, dramatization etc. Word and phonic drills as before. Let all such work be lively and hold the interest and close attention of the class. Above all, never let the reading lesson degenerate into a lifeless, mechanical exercise.

Teach them to use all new words in sentences. Copy easy poems and stories, observing capitals, marks of punciation etc. Exercise much care in their written work. Careless work must be rewritten. Be patient in correcting errors in writing, speech etc. Make use of the spring in song, poem and story.

Review thoroughly all preceding work in phonics. Keep up the word drills as directed in previous months. Review first readers. Give much sight reading. Complete the hard parts of first readers. Tell or have told Decoration Day stories. Learn patriotic songs. Make use of the summer season in songs, poems and stories.

Children should be able to write corectly from dictation, words and simple sentences. Demand correctness and neatness in all written work. Besides the blackboard work a child should read three primers and three first readers during the first year.

A SUGGESTED LIST OF READERS FOR THE FIRST YEAR, (TO SELECT FROM.)

The Aldine Primer.....Newson Co., Chicago, Ill.
Wheeler Primer .....Wheeler Pub. Co., Boston, Mass.
The Beginners Reader.....D. C. Heath & Co., Chicago, Ill.

Sunbonnet Babies Primer.....Rand, McNally Co., Chicago., Ill.
Gordon Primer .....D. C. Heath & Co., Chicago, Ill.
Blodgett Primer .....Ginn & Co., Chicago, Ill.
Summer Primer .....Frank D. Beattys & Co., New York
Cyr First Reader.....Ginn & Co., Chicago, Ill.
Brooks First Reader.....American Book Co., Chicago, Ill.
Summers First Reader.....Frank D. Beattys & Co., New York
Blodgett First Reader.....Ginn & Co., Chicago, Ill.
Jones First Reader.....Ginn & Co., Chicago, Ill.

SUPPLEMENTARY LIST.

Aldine First Reader.....Newson Co., Chicago, Ill.
Child Life No. 1. .....McMillan Co., Chicago, Ill.
The Cat School.....Educational Pub. Co., Chicago, Ill.
Nursery Classics .....D. C. Heath & Co., Chicago, Ill.
Finger Play, Book 1. .....D. C. Heath & Co., Chicago, Ill.
The Nixie Well .....Educational Pub. Co., Chicago, Ill.
The Graded Literature Readers, No. 1. Maynard, Merill & Co., New York City.

SUGGESTED STORIES TO TELL.

The Three Bears.
Cinderella.
Jack and the Bean Stalk.
Adventures of Pinnochio (Educational Pub. Co.)
Stories to Tell to Children (Houghton Miffin Co., Chicago.
Red Riding Hood.
Three Billy Goats Gruff.
Bow-wow and Mew-mew.
The Ugly Duckling.
Hiawatha.
The Lost Dime.

SUGGESTED POEMS.

Mother Goose Rhymes.
Bobby Shafto.
O, Mother How Pretty the Moon Looks.
Selections from Stephenson and Fields.
A Million Little Diamonds.
Sleep Baby Sleep.
Flag Salute.
Come Little Leaves.
The Baby.

SECOND YEAR.

FIRST MONTH.

Much work in phonics continued throughout the year. A bright, quick word drill should precede each lesson.

Review first reader work or use easy supplementary reader of first grade for the first month, bringing your class gradually to the second reader. Drill on all new words before you permit a pupil to read from the book, and then insist on his reading promptly, without drawling or hesitation. Do not try to advance too rapidly, but do not keep a class on a lesson after it has lost its interest for them. The pupil must be interested in the lesson, master its thought

and be filled with its sentiment before he can express them easily, freely, spontaneously.

Every school should have a series of readers for use in supplementary reading. Frequent changes from the regular reader to the supplementary one is better than to read one through. See that all written work is neatly and promptly done.

SECOND MONTH.

Thorough work in phonics as in the first year. Word drill as before. Ten or fifteen pages of the regular reader, besides some easy supplementary work. Give much attention to the pupil's silent reading by having him read a paragraph or selection to himself and then tell in his own words the substance of what he has read. New words that appear in sight reading should be written on the board. Drill in pronunciation and expression.

THIRD MONTH .

About fifteen pages of the second reader besides some supplementary work. Commit choice selections. No piece is to be committed to memory by a pupil unless he first grasps the thought of the selection. Assign the new lesson with great care, so that each pupil knows just what he must do in preparing it. Be careful not to assign too much writtne work. When it is assigned, it should be done and the pupil should be held responsible for it. Test the pupil's knowledge of the meaning of words by requiring him to illustrate them by drawing by synonyms, or by use in sentences, after the meaning has been fully expla ned. Do not fall into the habit of pronouncing words for the pupil while he is reading since that shows that the lesson has not been properly prepared. Such blundering over a lesson does little good and much harm. Teach punctuation marks in the reader not already learned.

FOURTH MONTH.

About twelve or fifteen pages of second reader and some supplementary work. Occasional lessons in sight reading. The teacher should read to the pupils, choosing easy stories that contain life and action or that describe animal life. Choice legends, folk lore and fairy tales are always interesting. If pupils show lack of interest, change poem or story.

Continue the phonic and word drills as described in the first year's work. Question the pupils on the lesson and be sure that he gets the meaning perfectly. Drill on expression.

FIFTH MONTH.

Fifteen to twenty pages in the second reader with supplementary work. For variety, let each pupil select some favorite piece and read it entire. Teach children to read all things with sweet and pleasant tones. Word and phonic drills should be kept up.

SIXTH MONTH.

The easy parts of several second readers should have been finished by this time and the harder parts taken up. From fifteen to twenty pages can be read besides some easy supplementary work. Review lessons passed over, letting each pupil read a page or a whole selection. They should be able now to make preparation of the lesson before coming to class, following some such directions as:

1. Read the lesson over carefully.
2. Write all the words that you do not know.
3. Make a list of all the words ending in "ing."
4. Write the names of the people and animals mentioned in the lesson.
5. Write all the sentences that tells what the dog had in his mouth, etc.

SEVENTH MONTH.

Precede the study of the lesson with a word drill. Read about twenty pages. Supplementary work should be easy work for sight reading. Plan your seat work so that the children may make careful study and preparation of the lesson. Memorize short selections. Insist on correct position and secure vigorous work. Put life and cheerfulness into your work if you expect results from your class. Phonics as before.

EIGHTH MONTH.

Complete the Second Reader. Review difficult lessons. Sight reading from supplementary work. Place upon the board questions on the lesson to which children shall write the complete answers. Make clippings of easy, appropriate reading matter, paste them on cards and use for sight reading.

Seldom pronounce a word for a pupil while he is reading. Do not permit blundering over words or stopping to spell new words. This shows that the word drills were not thorough and the lesson not properly prepared. Cultivate the power to take in new words at a glance. Teach pupils to adapt their manner and voice to the style of the piece. Encourage them to look for beautiful thoughts and to read them in a beautiful way.

NINTH MONTH.

Review second year's work. Hard parts of several readers completed. Pupils should be able to read aloud readily and accurately, any lesson in the first or second readers. They should be able to tell in good language, the substance of what they have read. Word and phonic drills should be kept up and constant reviews should be given.

SUGGESTED LIST OF READERS FOR SECOND YEAR. (TO SELECT FROM.)

The Circus Reader.....Benj. H. Sanborn, Chicago, Ill.
Brooks' Second Reader.....American Book Co., Chicago, Ill.
Cyr's Dramatic First.....Ginn & Co., Chicago, Ill.
Summers Second Reader.....Frank D. Beattys & Co., Ne wYork.
The Jones Second.....Ginn & Co., Chicago, Ill.
The Aldine Second.....D. C. Heath & Co., Chicago, Ill.
The Gordon Second.....D. C. Heath & Co., Chicago, Ill.

SUGGESTED LIST FOR SUPPLEMENTARY READING.

Boy Blue and His Friends.....Little, Brown & Co., Chicago, Ill.
Heart of Oak Books, No. 1.....D. C. Heath & Co., Chicago. Ill.
Finger Play Reader, No. 2.....D. C. Heath & Co, Chicago, Ill.
Graded Literature, Nos. 1 and 2..American Book Co., Chicago, Ill.
Hiawatha Primer, Nos. 1 and 2..American Book Co., Chicago, Ill.
Stories of Mother Goose Village...Rand, McNally Co., Chicago Ill.
Child Literature .....American Book Co., Chicago, Ill.
Graded Literature Readers, 2....Maynard, Merril Co., Chicago, Ill.
In Table Land .....Silver, Burdett & Co., Chicago, Ill.

SUGGESTED STORIES TO TELL OR READ.

Little Fir Tree.
Hans Andersen's Fairy Tales.
Aesop's Fables.
The Four Friends.
Classic Stories for Little Ones.
Selections from Thompson-Seton's Animal Stories.

Stories to Tell to Children, Published by Houghton, Mifflin Co., Chicago.

SUGGESTED POEMS

My Shadow.
Where Go the Boats?
America.
Little Boy Blue.
The Wonderful World.
Foreign Lands.
All Things Beautiful.
Seven Times One.
The Winds.
The Swing.

THIRD YEAR.

FIRST THREE MONTHS.

The objects to be obtained are partly mechanical and partly mental. Among the mechanical objects are correct pronounciations, accurate and pleasing enunciation, distinct articulation, proper pitch, ready adaptation to style of selection, accent and emphasis.

Among the mental objetcs are the grasping of thought and feeling easily from the printed page, fluency in oral reading, and the attainment of a larger vocabulary, with power to use words with increasing discrimination. A word drill should precede each lesson. Write all difficult words on the board, dividing them into syllables. Help the child to find out the words for himself and drill on the list so that each child may know them.

Read a second reader or an easy supplementary reader the first month. Read from fifteen to twenty pages of a third reader with some easy supplementary work each month.

Question pupils *before* reciting to test preparation, *during* the recitation to develop the lesson, and *after* the recitation to test their retention and application of the lesson.

SECOND THREE MONTHS.

Finish the easier parts of several readers beside some supplementary work. Observe word drill as before. Review of phonics and teach simpler diacritical marks. Assign lessons carefully and give specific directions in regard to written work. Each pupil should learn at least one short selection each month. The meaning of words and phrases should be learned from their relation to other words in the text rather than from formal definitions.

THIRD THREE MONTHS.

Drill on all difficult words in the lesson. Do not allow the pupils to fall into the habit of depending upon the teacher to pronounce the difficult words while reading. Do not let the class attempt to read more than they can prepare well. A lesson has not been well prepared when a pupil must constantly stop reading for the teacher to pronounce words. The teacher has either been negligent or the lesson was too long. The teacher must ascertain the trouble and take pains to remove it.

Encourage pupils to talk about what they read at home. In order to read well the pupil must be pleased and interested in what he reads. It is better for the teacher to make corrections after a pupil has finished reading rather than to interrupt him during his recitation.

When the children read clearly, fluently and feelingly, the probabilities are that they will enjoy the reading period. Then the teacher has it in her hands to formulate a taste for good literature. Commit to memory one choice selection each month.

SUGGESTED LIST OF READERS, THIRD YEAR (TO SELECT FROM)

The Aldine Third Reader.....Newson Co., Chicago, Ill.
The Brooks Third Reader.....American Book Co., Chicago, Ill.
The Cyr Third Reader.....Ginn & Co., Chicago, Ill.
The Blodgett Third Reader.....Ginn & Co., Chicago, Ill.
The Jones.....Ginn & Co., Chicago, Ill.
Summers Third Reader.....Frank D. Beattys & Co., New York.
Heath Third Reader.....D. C. Heath & Co., Chicago, Ill.

SUGGESTED SUPPLEMENTARY LIST

Heart of Oak Books, No. 3.....D. C. Heath & Co., Chicago, Ill.
Little Folks of Many Lands.....Ginn & Co., Chicago, Ill.
Lights to Literature, No. 2.....Rand, McNally & Co., Chicago, Ill.
Sprague Classic Readers, No. 2..Educational Pub. Co., Chicago, Ill.
The Gordon Third Reader.....D. C. Heath & Co., Chicago, Ill.
Graded Literature Readers, No. 3..Maynard Merrill & Co., New York.
Bunny Boy and Grizzly Bear.....A. Flanagan & Co., Chicago, Ill.
Bunny Cotton Tail.....A. Flanagan & Co., Chicago, Ill.

SUGGESTED STORIES TO READ OR TELL

The Early Cave Men.
The Tree Dwellers.
Pied Piper and Other Stories.
Stepping Stones to Literature.
Legends of the Red Children.
The Later Cave Men.
Swiss Family Robinson.
Alladin.
Robinson Crusoe.
Alice in Wonderland.

SUGGESTED POEMS

The Swing.
The Wind.
Land of Counterpane.
Wynken, Blinken and Nod.
Who Stole the Nest?
Hiawatha's Childhood.
Suppose.
Hiawatha's Sailing.
Seein' Things at Night.
The Gobbelins.
Bed in Summer.
Bob-o-link.
Land of Story Books.

FOURTH YEAR.

FIRST THREE MONTHS.

The preparation of each lesson should be preceded by a thorough word drill, and each drill should mark an increase in power and independence. In this grade the child should be taught the use of a dictionary. Every day a part of the reading preparation should be the looking up of certain words in the dictionary.

The object of oral reading is to be heard, understood and felt. The good teacher will keep this object in mind and will make the children feel that they read to make others understand, feel and enjoy what is read.

Accent, inflection and emphasis should receive special atention in this grade. Continue the practice of learning choice selections. In assigning lessons, fix upon some leading thought as the aim of the lesson and then plan the seat work of the pupils so that it will lead up to this aim. Be ashamed to dismiss any class every member of which has not learned at least one new thing.

About fifteen or twenty pages of the regular reader may be read each month beside some easy supplementary work.

SECOND THREE MONTHS.

Continue word drills and dictionary work as in the first three months. Plan your work with the individual needs of the pupils in the class vividly in mind,—think of the pupil who hesitates, the one who repeats, the one who articulates poorly, who miscalls words, who mispronounces, who can see only one word at a time, who is awkward and clumsy, who is neglected at home. Plan an abundance of bright, interesting and easy matter. Take the easy parts of a couple of readers, about twenty pages each month. At least one choice selection should be memorized each month.

THIRD THREE MONTHS.

Review lessons as may be seen best. Halting and lifeless reading usually arises from a failure to master the words in the lesson, and to gather the thought.

Cure the evil by removing the cause. Children having defects in articulation should be trained to a habit of clear, careful enunciation. To aid expression, one pupil should be selected each day to read the entire lesson to the whole class. The teacher may call for difficult words and write them on the board. Pupils may compose sentences containing them. The harder parts of two or three readers may be finished this three months besides easy supplementary reading. Much easy sight reading gives the child confidence in his ability. If the children are led to think as they read, they will come in time to care for thoughtful books. The child who is in love with good books cannot be led far away from what is sane and right in life.

A SUGGESTED LIST OF READERS FOR FOURTH YEAR, (TO SELECT FROM)

Brooks 4th Reader.....American Book Co., Chicago, Ill.
Blodgett 4th Reader.....Ginn & Co., Chicago, Ill.
The Gordon Reader.....D. C. Heath & Co., Chicago, Ill.
The Jones Fourth.....Ginn & Co., Chicago, Ill.
Graded Literature Readers, No. 4..Maynard Merrill & Co., New York City.

A SUGGESTED SUPPLEMENTARY LIST

Classics Old & New No. 4.....American Book Co., Chicago, Ill.
True Fairy Stories.....American Book Co., Chicago, Ill.
Heart of Oak, Book III.....D. C. Heath & Co., Chicago, Ill.
Heath 4th Reader.....D. C. Heath & Co., Chicago, Ill.
Seven Little Sisters.....Ginn & Co., Chicago, Ill.
Lights to Literature, Book 3.....Rand McNally & Co., Chicago, Ill.
Indian Stories.....Silver Burdett & Co., Chicago, Ill.

SUGGESTED STORIES

Wigwam Stories.....Ginn & Co., Chicago, Ill.
Docas, the Indian Boy.....D. C. Heath & Co., Chicago, Ill.
Ben, the Black Bear.....Scribner's Sons, New York City
Two Little Knights of Kentucky.
Black Beauty.....A. Flanagan, Chicago, Ill.
The Nuremburg Stove.....A. Flanagan, Chicago, Ill.

SUGGESTED POEMS

The Singing Lesson.
Where Go the Boats.
The Gobbelins.
The Night Wind.
The Brook.
The First Snow Ball.
The 23rd Paslm.
I Remember, I Remember.
The Village Blacksmith.
Psalm of Life.

FIFTH YEAR.

FIRST THREE MONTHS

Study all suggestions and directions for the first years in reading. See that the position of the pupil while reading is graceful, easy and erect. Insist on a pupil's reading loud enough for all in the class to hear distinctly, but check pupils who read ruedly loud. Encourage the use of the dictionary. Have pupils bring selections of their own choosing to school and read them to the class. This will encourage the habit of home reading. Give thorough word drills before the preparation of each lesson. Give special attention to all pupils who are poor readers. Call on them to read a paragraph from the book in the recitation in arithmetic, geography, language, etc. Supply an abundance of easy supplementary reading. Parker's Penny Classics are good and so cheap that they are within the reach of all. They are published by C. M. Parker, Taylorville, Ill. Many good classics may be had from A. Flanagan, Chicago, for four cents each. It is utter folly to expect children to become good readers by keeping them on one set of readers for eight years. Good work in reading reacts favorably on every other branch of study. Much of the pupil's trouble in arithmetic is due to the fact that he cannot read his problems correctly.

SECOND THREE MONTHS.

Word drill and dictionary work as before. Have pupils read silently and then tell the substance of what they have read. Let one read aloud while the others have books closed, then ask those who have listened to give the thought. Make good use of plenty of easy supplementary material. Have much sight reading. Reading must be more than language teaching, it should be genuine literary training. To read well a pupil must feel the spirit and beauty of what he reads. Nothing stimulates a pupil's expression as the desire to impress upon others the beauty and feeling of a thought which he has really mastered; so that back of all good expression in reading, deeper than any mechanics of voice, are imigination and thought and feeling. Unless the mind conceives the thought, unless imagination puts life and vividness into the piece, unless the heart thrills with its sentiment and emotion, how can the vocal organs express it well?

The successful teacher of reading must be a lover of the tender and true, the beautiful and good. The reading of her pupils in an index of the teacher's character.

THIRD THREE MONTHS.

The pupils should have completed the easy parts of at least two fifth readers besides plenty easy supplementary matter up to this time. They now take the harder parts of the readers. Continue with word drills. Encourage the use of the dictionary.

Ask pupils to report on books they have read. This encourages the home reading. The first requisite for good reading is interest in what one is reading. If the teacher has not studied the lesson carefully, the class have poor in-

struction and inspiration. In planning the lesson, keep in mind (1) the class, not as a whole only, but as individuals; (2) the time for study of the lesson and for recitation; (3) what the main topic of the lesson is,—the aim of the lesson; (4) what knowledge the pupils have on the lesson; (5) methods, devices, blackboard work, etc.

At the close of the year the pupil should be able to read with proper expression any selection in the reader studied; to give the substanc of what has been read; to give the meaning of words from the context; to recite several choice selections.

SUGGESTED LIST OF READERS

Brooks Fifth Reader.....American Book Co., Chicago, Ill.
The Jones Fifth Reader.....Ginn & Co., Chicago, Ill.
Graded Literature Readers, No. 5.....Maynard, Merrill & Co., N. Y. City.
Heath Fifth Reader.....D. C. Heath & Co., Chicago, Ill.
Lights to Literature, Book 4....Rand McNally & Co., Chicago, Ill.

SUGGESTED SUPPLEMENTARY LIST

Ben, the Black Bear.....Chas. Scribner's Sons, Chicago, Ill.
Heart of Oak Books, No. 4.....D. C. Heath & Co., Chicago, Ill.
Progressive Readers, Book 5.....American Book Co., Chicago, Ill.
The Wonderful Chair.....D. C. Heath & Co., Chicago, Ill.

SUGGESTED STORIES

Every Day Life in the Colonies.	America's stories for America's Children.
Timothy's Quest.	Mouffion, the Dog of France.
Wild Animals I Have Known.	Gulliver's Travels.
Legend of Sleepy Hollow.	Lives of the Hunted.
Water Babies.	Docas, the Indian Boy.

SUGGESTED POEMS

Home, Sweet Home.	Those Evening Bells.
In School Days.	Thou Too Sail On O Ship of State.
The Landing of the Pilgrims.	The Brook.
The Daffodils.	The Arrow and the Song.
The Old Oaken Bucket.	Battle Hym of the Republic.

SIXTH YEAR.

Take an easy sixth reader or simple supplementary work for the first month. Aim to teach the pupils how to get the thought from the printed pages to read aloud clearly, forcibly and agreeably. Teach them to acquire a mastery of words and a power of vivid picturing, to create a taste for good reading. Observe carefully the directions given for all previous work.

There should be no relaxation in the effort to teach prompt word recognition, distinct articulation, clearness of tone, correct expression. The teacher should bear in mind that the pupil is growing intellectually and is prepared to learn many things that have been beyond his power in the lower grades. All

reading matter of this grade should be of a distinctly literary character. Make a great deal of use of comparisons to develop observation and judgment. Compare authors, the customs, places, ideals and aims of the people.

Give attention to expression as heretofore. Put weak-voiced children before the class and let them read while the class listens with books closed. Plan your lesson and determine the leading thoughts which you wish to bring out. Suggest some plan of study to the pupils, as this:—1, Read the lesson as a whole silently. 2, Select the leading thought of each paragraph. 3, Study the meaning of the words, phrases, etc. 4, Look up all biographical, historiacl and geographical references. 5, The finest expression and the best thought. 6, Read the whole section with expression.

If a teacher dislikes work and shirks preparation, then these suggestions will be of no value to her or her pupils. Mental and moral growth in the pupils is the wide-awake, intelligent work on the part of the teacher.

SUGGESTED LIST OF READERS

Brooks Sixth Reader.....American Book Co., Chicago, Ill.
Jones Sixth Reader.....Ginn & Co., Chicago, Ill.
Heath Sixth Reader.....D. C. Heath & Co., Chicago, Ill.
Graded Literature Readers, No. 6.....Maynard Merrill & Co., N .Y. City.

SUGGESTED SUPPLEMENTARY LIST

Lights to Literature, Book 5....Rand McNally & Co., Chicago, Ill.
Progressive Readers.....American Book Co., Chicago, Ill.
America's Story for Amer. Children.....D. C. Heath & Co., Chicago, Ill.
Winslow's Geographic Readers 1-5..D. C. Heath & Co., Chicago, Ill.

SUGGESTED STORIES

Tom Sawyer.
Selections from Tom Brown's School Days.
The Jungle Books.
Old Greek Stories.
Grandfather's Chair.
The Cricket on the Hearth.
Twice Told Tales.
Arabian Nights.
Troubadour Tales.
Ten Boys Who Lived on the Road from Long Ago to Now.

SUGGESTED POEMS

Sheridan's Ride.
The American Flag.
Building of the Ship.
Love of Country (Scott.)
The Day is Done.
Paul Revere's Ride.
The Barefoot Boy.
A Song (Riley.)
Abou Ben Adhem.

SEVENTH YEAR.

The teacher should refer to all that has been given in this course on teaching reading. Interest pupils in authors by stories, photographs, pictures of their homes, choice selections, and by giving circumstances under which they wrote the selection which the pupils are studying.

Correlate the reading lesson with the lesson in geography, and history. There is a great gain to the pupil if while he is studying the New England States in geography he may at the same time read Miss Standish and prepare a history lesson on the settlement of Massachusetts.

It should not be necessary now to devote much time in the class to the mechanical element in reading. Pupils of this grade should be able to enter into the spirit of the selection. Not till reading ceases to be a drill, not till the pupil has a mastery of words, will the reading lesson become an important factor in the pupil's culture. Let the teacher make a thorough preparation of the lesson. For the teacher to fully understand, appreciate and enjoy such a piece as Lowell's Vision of Sir Launfal is the first and greatest step toward preparation for teaching it successfully.

Make a judicious use of home reading from the library.

Students should frequently hear good reading by the teacher or by the best reader in the class in order that the spirit of the same may leave its impression. Memorize choice selections.

SUGGESTED LIST OF READERS

Brooks Seventh Reader.....American Book Co., Chicago, Ill.
Jones Seventh Reader.....Ginn & Co., Chicago, Ill.
Williams Choice Literature, Book 1.....American Book Co., Chicago, Ill.
Carpenter's Geographical Readers.....American Book Co., Chicago, Ill.

SUGGESTED STORIES FOR 7TH GRADE

The Last of the Mohicans.
The Vision of Sir Launfal.
Pilgrim's Progress.
Gettysburg Address.
The Sketch Book.
Snow Bound.
The Spy.
The Prairie.
The Great Stone Face.
Grandmother's Story of Bunker Hill.

SUGGESTED POOEMS

The Star Spangled Banner (Key).
Death of the Flowers (Bryant).
Bugle Song, (Tennyson).
Ring Out Wild Bells, (Tennyson).
A Song, (Riley).
Battle Hymn of the Republic (Howe).
The Bell of Atra, (Longfellow).
To a Waterfowl, (Bryant).

EIGHTH YEAR.

If a reader is used, the class should make a careful study of the best selections rather than read the whole book. At least a part of the year should be spent on the masterpiece of literature. Such whole selections as Whittier's Snow Bound, Irving's Sketch Book, and Hawthorne's Great Stone Face should be carefully studied. Pupils should have much practice in sight reading. They should memorize choice selections or passages. They should learn something of the great writers and the different departments of literature.

SUGGESTED LIST OF READERS FOR THE EIGHTH GRADE

Williams Choice Literature, (Grammar Grades Part II).....
.....American Book Co., Chicago, Ill.
Literary Readings (Curry).....Rand McNally Co., Chicago, Ill.
Brooks Eighth Reader.....American Book Co., Chicago, Ill.
Jones Eighth Reader.....Ginn & Co., Chicago, Ill.
Parker's Penny Classics.....C. M. Parker, Taylorville, Ill.
Famous Poems Explained.....Hinds, Noble & Eldredge, New York

SUGGESTED STORIES SUITABLE FOR EIGHTH GRADES

The Hoosier Schoolmaster.
The Sketch Book, (Dickens).
Tom Sawyer.
Napoleon, the Little Corsican.
Silas Marner.
Sentimental Tommy.
With Sully in Sioux Land.

SUGGESTED POEMS SUITABLE FOR EIGHTH GRADES

O Captain, My Captain, (Whitman).
Breathes There a Man (Scott).
The Daffodils, (Wordsworth).
The Sandpiper, (Thaxter).
Spring, (Shelly).
Crossing the Bar, (Tennyson).
Columbus (Miller).
Recessional (Kipling).
Psalms XIX and XC.
Lincoln's Gettysburg Speech.

THE SANDPIPER.

SUGGESTED TEACHING "THE SANDPIPER."

Children in the country and those who have never seen the sea will have some difficulty in comprehending the poem. The teacher must therefore explain how the author lived nearly all her life on one of the isles of Shoals off the coast of New Hampshire.

Get the children to imagine a little girl on a sandy ocean beach gathering the dry dift-wood for fuel. Help them to picture the slender, long-legged bird, similar to those that flit along some of our rivers, running up and down the beach.

Show pictures of lighthouses, and explain their use. Make them see the picture of the rising sun on the sea shore.

Have them find out all they can of the life of Celia Thaxter.

OUTLINE.

1. What is drift wood?
2. "The wild waves reach their hands for it." What is the meaning?
3. "The tide runs high." Explain tides, (combine their knowledge of geography in this way with their reading).
4. "Make them understand how just before a storm the sandpiper runs up and down the beach as described here."
5. Explain "sullen clouds," "scud back and forth." Have you ever watched a storm come up? Describe it. What is a lighthouse?
6. The girl and the bird have been together so many times that they know each other and have become friends. Why does she shall him "comrade?"
7. What lesson does the last stanza teach?

COLUMBUS.

SUGGESTED TEACHING OF "COLUMBUS."

Have the children find out all they can of the life of Joaquin Miller.

Help them to think of and understand the dangers of the voyage, of how the sailors thought the sea was filled with awful monsters. Tell them of how the sailors threatened to throw Columbus overboard if he did not take them back home. Tell of his matchless courage in managing them.

Review their knowledge of the voyage of Columbus as learned in their histories.

OUTLINE.

1. What are the "Azores?" Locate them and tell what you know of them.
2. What is the meaning of "mutious'? To what does it refer?
3. Explain "He kept his deck and peered thru darkness."
4. In the first part of verse four notice his description of a storm at sea.
5. Explain "a starlit flag unfurled."
6. "Time's burst of dawn" (a new era in the world's history).

Language and Grammar

Perhaps no other thing the school can do for its pupils equals in importance its training of their ability to communicate with those around them. In the reading classes we devote one or two periods each day to teaching the pupil to get the thoughts of others from the printed page. The language work devotes one period each day to the other side of the art of communication, viz., that of expressing one's ideas to others.

For years before the pupil comes to school he has been expressing himself to others in ordinary conversation. The language course in school aims to extend this power, to widen the child's vocabulary, to improve the clearness with which he speaks, and to help him to speak correctly a swell as clearly; further it must teach the child to express himself in the ordinary written form.

The language work may have at times other aims combined with this aim. that is, it may do other things. E. g., every gain in ability to express ones self is an aid in understanding others, so language helps reading and the understanding of literature. Again, every experience in expressing his ideas, i. e., in getting them clearly in his own mind and finding words for them, is an exercise in thinking, and increases his ability to think and to organize his ideas. Further, every gain in power of expression is likely to be of value to the pupil in other subjects, geography, history, or even arithmetic, and the teacher frequently takes advantage of this to correlate the language and some other subject. But after all the teacher should ever remember that the primary aim of language work is to teach the child to express himself freely, clearly, and corectly, both orally and in writing.

In teaching the pupil to express himself we must think more than almost anywhere else what the child can do and what he wants to do. From elementary school to college the complaint has been that the pupils are asked to write on topics they know little about and care little about. In the actual experience of life we talk or write because we have heard or read or seen something we think will be of interest to others. We seldom reverse the process and look up something or listen to something that we say may get ready to talk about it. Why should we so generally do this in language class? Why should the language work be almost always something of story, or poem, brought in from outside the school work or even the pupil's experience, just to get "something for a language lesson?" Why not instead make use of the facts gained in some other lesson or in the pupil's experience outside schools. This will not only furnish natural and interesting material for language but will enable the language work to reinforce the work of other subjects.

FIRST AND SECOND GRADES.

The language work of these grades will consist mainly of two kinds—

Stories and their reproduction.

Conversations between teacher and pupil regarding things already experienced by the pupils, or regarding experiences teacher and pupil have together, as the study of objects or pictures.

From two to three times a week the teacher should tell to the pupils some story. It may be a story from child literature, like "Three Bears," or "Red Riding Hood," or it may be a story from history, physiology, or nature study. In preparing the story the teacher will need:—

To get in mind the essential points of the story and in the right order.

To choose a simple and clear wording for them.

To be careful to use correct English.

Until she has had considerable experience in telling stories to pupils, she would better practice the story over to herself before she undertakes to present it to pupils.

It may be necessary at first to tell a story twice to the class before they can do much in reproducing it. In the reproduction of it the pupils will often need to be helped by questions and suggestions, and frequently a sentence or two will need to be regiven by the teacher in the midst of the reproduction. Often a sentence or paragraph or section of the story which has been picked up in a straggling way, a fragment from one pupil, a few words more from another, will need to be retold—all put together—by some one pupil before going on with the story. It is well for the teacher to remember that this part of the work needs to be as carefully prepared for, by her as the telling of the story.

For the conversation between teacher and pupil in language class the committee does not like to suggest any certain subjects. Much freedom must be left here to the ingenuity of the teacher. Almost anything that will interest the children and get them to talking will serve the purpose at this point, tho of course the topics presented will aim also to be instructive, to get the pupil to observe the things in nature and in society around them, and to furnish a basis later for geography, history, civics, literature, etc. They may be on subjects or incidents familiar to the children, or simple nature lessons like the differences between summer and winter, fall and spring, or on the various shapes of land and water seen after a shower. (See suggestive lessons at close of first year in this course.)

Pictures are often used for this purpose. The picture to use as the basis of a language lesson is not generally the picture of some one person, animal, or object. To furnish suggestions for talking, a picture should present several objects, persons or animals; if there is some central object in the picture around which the rest of the picture naturally groups itself, this will help or can be made to help the pupil in organizing his account of what he sees in the picture. The picture for this purpose should present too "something going on" as a means of stirring up the pupil's imagination—of getting them to thinking and telling what probably happened just before and what will likely happen after what they see in the picture. After they have had some practice in this they may be able to make up quite a story based on a well-chosen picture. The picture once selected the teacher will need to study it, find in it the things

which she wishes the pupils to observe, plan the questions she will ask to get them to observe and to talk, decide on the order in which she will ask the questions. Among the best pictures for these purposes are often those in the lower books of almost any standard series of readers; others can be found in the teachers' magazines, children's story-books or magazines, on tablet covers, or in the general magazines.

Written composition begins with the copying on the board of words placed there in script by the teacher. Soon if not from the very first this copy is a sentence of one or two words with its capital and period or a little later its question mark; as soon as any punctuation appears in the copy it should be reproduced by the pupil. This would soon be followed by copying on paper from a copy on their paper or on the board. One of the early copies each pupil likes to work at is his own name. Soon after the class begins to read from print in their readers, they will begin writing in script occasional short sentences from the reader. In all this copying or transferring of print to script the pupil should be required to observe every capital and punctuation mark; if this turns out to be too much to ask, it merely means that too difficult a copy has been chosen, for the punctuation is a part of the writing and should be from the beginning.

Among the earliest of the "rules" to be taught to the pupil are the capital I and the capital O.

By the end of the first year the pupil should be able to write his name and P. O. address, to put into script short sentences from his reader, punctuation included, and to write easy sentences dictated by the teacher.

LITERATURE.—The literature for these grades will be in addition to the stories told them for reproduction, stories and poems read to them by the teacher, and gems of poetry and prose memorized by them thro frequent oral repetition. The distinction between stories read to them and stories to be told to them will be seen at once if we think of some selection like Hiawatha. Parts of it can be read to them and they can understand it (with an occasional word of explanation by the teacher) and be interested in it. Other parts of it cannot be read to them to advantage, but must be read by the teacher and retold in simplier language. Still other parts of it cannot be presented to lower grades to advantage at all.

"In order to increase and improve the pupil's stock of words and phrases, to develop his perception of the sublime and the beautiful, let him during every month of his schol life learn choice poems and pieces of literature by heart. In the lower grades these may be taught by the teacher's repeating them to the class until they are mastered. By frequent repetitions keep fresh in mind selections already mastered, not allowing pupils to forget the old ones when new ones are learned." It may be added that to accomplish these results, i. e., to increase the pupil's vocabulary and help him to appreciate the beautiful, the meaning as well as the words must be clear to him.

TOPICS FOR DISCUSSION IN LOWER GRADES.

The topics suggested are those in which children and teachers may make observations together and get the facts. Teachers should use topics from this list or others which are especially adapter for the locality in which they are teaching. Be sure the facts given are true. Objects should be studied in the school room whenever practicable.

Fall.—Home, members of the family. Domestic animals as cat, dog, horses, cow, fowls. Wild animals as rabbits, badger, gopher, fox, prairie hens, geese, meadow lark. Occupations as butter making, blacksmith, carpenter, harvesting, threshing, flour mills, merchant. Preparation for winter of man, plants, trees, animals, migration of birds. Distribution of seeds by wind, water, animals, birds, man.

A type lesson, "The Cat," is given. In a similar manner the other animals may be studied and discussed.

THE CAT.

Of what use is the cat? (Catches mice.)

How is she fitted for this work? Look at her feet. (Claws are sharp and hooked.)

Do they touch the floor when she walks? Why not? (She draws them up.)

What else do you notice about the cat's feet? (She has cushions on them.)

How do these help? (She walks noiselessly.) The claws are kept from being broken or dulled.

How does she sharpen her claws? (She scratches on trees or other wood or sometimes on Mother's rugs.

How does the cat know there is a mouse near? (Hears it gnawing.)

A child may go into the hall or wardrobe and scratch as a mouse gnaws.

Watch the cat's ears, tail, position of body, expression of face. Do it again. what does she do?

Sometimes the cat wishes to go into a hole when hunting. How does she measure the size of the hole. (The feelers or whiskers measure for her. Any hole which is so large that the whiskers do not touch the sides is large enough for the body to pass through.)

Did you ever see a cat start into a hole and back out? Why did she? ?

How else may the whiskers help besides measuring? (They help her as she moves about in the dark.)

Notice the cat's eyes in the day time. When it is getting dark. How do they differ? (At night the curtains open wide so all the light possible may get in.)

Look at Kitty's teeth. What are the small front ones for? (For nipping grass and catnip. What are the long ones for? The back ones?

How does Kitty drink? (She laps the milk or water. Her tongue is like a little spoon.) How does she get the dish so clean from which she eats? (Her tongue has tiny hooks on it pointing back.) Look at it.

Does anything harm Kitty? (Dogs and sometimes people.)

How does she get away from the dogs? (She climbs a tree if possible.)

What helps her to do this? (Her sharp hooked claws.) Can a dog climb a tree? Why not? If Kitty sees no tree, what will she do?

How does the cat ask you to open the door for her? How does she ask for a bit of fresh meat? How does she tell you that she is happy? What does she do after dinner? (Washes herself and takes a nap.) Can a cat be taught to obey?

How does she wash her babies? How does she carry them? How does she train them to mind her?

STORIES.

"The Cat That Walked by Himself," Kipling's "Just So Stories," "Why Kitty Washes After Dinner." POEMS, "Gingham Dog and Calico Cat," "Sugar Plum Tree," Field.

WINTER.

Snow stars, uses of snow. Length of day and night (compare with length during summer.)

Means of telling direction. Winter sleep of animals (hibernation.)

Coats of animals (thickness and color.) Appearance of trees now. Coal mining, wood cutting.

TYPE LESSON ON THE RABBIT. (COMMON HARE.)

Tracks are sometimes seen as children come to school on a sunny winter morning. What has made them? (Cats, dogs, rabbits, mice.)

How may we tell the rabbit tracks? Draw a picture on the board. If they cannot let them look again. Notice position of tracks. (The two front feet strike together and the two hind feet come each side and a little ahead of the front feet.)

Which legs help most in hopping? (The hind legs.) Why do they? (They are longer and stronger.) Did you ever watch a rabbit go up the hill? (He goes up as easily as down because of the strong hind legs.)

What enemies has the rabbit? (Dogs, cats, men.) Why do his eyes help him escape? (Because of position for he can see all around without turning his head.) What does he turn? (His eyes.) What else helps Bunny know that a dog is coming? His ears. (They are long and easily moved so he may catch the sound.) Notice position of ears when he is running. Down on back? Why? (So they may not be in the way as he goes under fences, through bushes, etc.)

What else helps Bunny escape from his enemies? (Color of his coat.) In summer it is a brownish gray, the color of the fields, bushes, trees; in winter it is the color of the snow.

Sometimes when a dog is chasing Bunny, she makes a quick turn. The dog can not turn as quickly and the rabbit gets some distance ahead and gains time.

Does the rabbit harm anything? (Eats vegetables in the garden and in winter bark on young trees.) Does this harm the tree? (It kills them if he gnaws all around. It prevents the sap from passing from the roots to the branches and leaves. On many fruit farms, rabbit fences are built to protect the young trees from rabbits.

What kind of teeth must Bunny have to be able to gnaw bark on trees? (Sharp and long.) See if they are.

Are all the teeth sharp and long? Examine the teeth of a tame rabbit if possible. The gnawing of bark wears the teeth off, but they keep growing out. What would happen if one of these long teeth should be broken? (The one opposite would grow out long like a tusk, and the rabbit could not eat.

The nest and care of young are interesting. The story of Raggylug may be told.

SPRING.

Awakening of trees, plants, animals. Return of birds, nest ,food, eggs, care of young. Uses of sun, rain, soil, air. Preparation of soil in gardens, and fields. Seeding, haying, work of running water. Study work of water after a heavy rain. See divisions of land and water as shown in a muddy road.

SECOND YEAR.

The oral work of the second year is a continuation of that of the first year, the advance being in the length of the stories and the complexity, and in the fullness of detail and degree of organization expected from the pupil. The retelling of the longer, more complicated stories may be assisted by placing on the board a series of questions similar to those used already in oral work. It is not alone stories told by the teacher that furnish material for the language period; frequently a lesson presented in oral hygiene, nature study, elementary scciology, or history earlier in the day or on some previous day, may be brought over to the language period for a full reproduction. The language period can occasionally with profit to both language and number be given to increasing the accuracy and fullness of the pupil's statement and explanation of his number work.

SECOND YEAR—WRITTEN WORK.

The second year should continue the written work of the first year—there should be short sentences to be written from dictation, the copying of script from the board, the writing in script of short sentences from the reader, and in all this, the pupil is to be held responsible for reproduction of capitals and punctuation. In addition this garde is gradually to introduce other exercises in written composition.

The copying of sentences from the board with blanks to be filled in by the pupil. The blanks may call for is *or* are, was *or* were, or similar choice of words; or they may require the pupil to fill out from the facts discussed in some other or earlier lesson. E. g., after a conversation about the seasons, the following sentences might be used: The trees get their leaves in the.... The trees lose their leaves in the ..... We have snow in..... It is warmest in..... The seasons are....., ..., ..., and.....

The pupils may write answers to a series of questions placed on the board.

Later in the year when a longer series of questions is used in this way, the teacher may help the pupil divide his story or written lesson into para-

graphs, by dividing her questions into the same grouping in paragraphs as she expects in the pupils' answers.

Letter-writting may begin in this grade. One way would be for the teacher to place on the board a letter which could be used as a reading lesson. She should be especially careful to have her letter in excellent form, and should help the pupils to notice the form and punctuation. Then after this had been done two or three times, teacher and pupils might together write out a letter. Then the pupils might with the aid of heading and salutation placed on the board write a letter of two to five sentences to their teacher or tneir parents.

THIRD YEAR.

There is no sudden change at this or at any other point, but in general intermediate work as compared with primary will offer more written work, more frequent and longer drills, more independent work in memory gems and reproductions, and more definite helps to pupils in learning to organize their ideas for oral or written composition.

The aims are as before—

Freedom of expression.

Clearness of expression.

Correctness of expression.

The first two of these are to be secured thru—

The pupil's having something to say; that is, his knowing something about the subject in question and having confidence in its being worth saying.

The pupil's possession of the necessary vocabulary; that is, knowing the words and the use of the words needed to express this knowledge.

Practice in organizing his ideas so as to state them clearly.

The something to say can be gotte nfrom a story read or told to them by the teacher and now to be reproduced by them; it can by the time the pupils are in the third grade be a story read by the pupil himself in reader, library book or elsewhere; it can be what has been observed in object-lesson, field-trip, or on the way to school; it can be from the material presented in the hygiene, nature study, geography or other lesson,—any of these now brought over to the language period that the *way* of the telling may be emphasized.

"The best ways to add to one's stock of words are to listen to good talkers, to read good books, and to commit to memory passages of prose and poetry that are really worthy." The best talker the pupil ordinarily hears, at least the only one over whom the school has control is the teacher; so the teacher must be careful that his own choice of words and use of words is such that the pupil may imitate to advantage—imitate the pupil surely will, be the example good or bad. Poems and prose suitable for memorized should be studied by teacher and pupils until the pupils understand and can read it well; then they are ready to memorize it. The memory gems thus learned are by no means confined to those named in the language course. We frequently come upon a fine selection in the reading lesson, or in getting up the program for some holiday, or even in con-

nection with the nature study, history, or other lesson; by all means let the pupils learn it, especially if it be a selection that the pupils themselves enjoy. One school man criticises the old course on the ground that the pupils should choose their own gems; true, but the Course names *one* selection for each month, leaving teacher and class to choose the other one to three selections a class should learn each month.

Correctness is a third part of the aim in language. It is perhaps less important than the other two—certainly has to wait for its emphasis until the pupils speak with some degree of freedom and clearness, but as we advance from the third to the fifth grades correctness of expression comes forward for an increasing share of attention.

THIRD YEAR—FIRST MONTH.

Literature—September, to be memorized. Each month the teacher should read to the pupils selections from readers, library books, etc. These should be easier selections than those studied by the class, and to make it a valuable and interesting exercise, the teacher must *prepare* for it possibly by rehearsing the selection to herself before attempting to give it to the class.

Composition—Three or four stories for reproduction—sometimes the reproduction guided by questions placed on the board. Drill on correct use of there and their; to, too, two.

SECOND MONTH.

Literature—October's Bright Blue Weather.

Composition—As last month, but in neither month should the oral or written compositions be confined to the language class stories. Take a nature study or history or other lesson as material for language work ocassionally. Use of teach and learn, of and off.

THIRD MONTH.

Literature—Whittier's Corn Song. Read to pupils other essay pieces from Whittier.

Composition—Correct use of see and saw, did and done. When pupils write these exercises or those of other months require in every exercis straight margins, punctuation and correct spelling. Continue oral and written reproduction of stories and material from other lessons; when the reproduction is written from questions placed on the board the teacher should provide for paragraphing by grouping in paragraphs the questions whose answers are to make up the respective paragraphs in the pupil's story.

FOURTH MONTH.

Literature—Lowell's First Snowfall. Memorize too some easy poem the pupils select from the reading lesson, or a few verses from the Bible story of Christmas. Read Longfellow's Two Angels.

Composition—If this month falls in December or near it, part of the oral and written work will center around Christmas; part will come from the other work of the school. Drill on use of I and me, he and him, she and her. Notice the danger points, e. g., pupils practically never say "Me did the work," tho many of them say, "'John and me did it." One device is to ask two pupils to stand, and then in answer to your question, Who are standing, get as great a variety of replies as you can; e. g., Mary and John are standing, Mary and he are standing, She and John are standing, She and he, they from other pupils about those standing; or from the two, such answers as, John and I are standing, Mary and I are standing, He and I, She and I, We, We two, We pupils. Work out a variety of these drills; e. g., ask pupils to go to the board and write what they did, getting the same group of beginnings for the sentences, as John and I came to the board, We came, He and I, etc. Or ask what pupils went to the board, what pupils left the room, etc.

FIFTH MONTH.

Literature—Stevenson's Winter Time. Let the pupils learn also one or two short prose quotations, proverbs.

Composition—Continue drills on pronouns, emphazing they or them, we or us. Notice the remarks of the pupils at recess or at play, and give exercises to afford them practice in the right forms in place of any incorrect forms they use. Do not confine the language work to the memory gem and drills, but have oral and written composition as frequently as possible.

SIXTH MONTH.

Literature—Longfellow's Children's Hour. Read to the pupils two or three other poems of Longfellow's.

Composition—For reproduction read or tell incidents from the life of Longfellow. If this month's work falls in February, many conversations and written lessons will center around the celebrations of the month. See history course for suggestions. Teach the use of the comma in series, as in, "The seasons are spring, summer, fall, and winter." Also comma with name of person spoken to, as in, John, will you close the door?

SEVENTH MONTH.

Literature—Bryant's March.

Composition—Tell various stanzas of the above poem in pupil's own words. Conversations based on the nature study work of the farm work of this season. Drill on use of very and awful, good and well.

EIGHTH MONTH.

Literature—Tennyson's Sweet and Low; Anderson's Ugly Duckling.

Composition—Conversations about the Ugly Duckling, or nature study or elementary sociology (see these courses for suggestions.) Teach use of this

that, these and those. If you have heard the pupils using such expressions as them books, these kind of apples, etc., teach the correct form and give some practice in its use.

NINTH MONTH.

Literature—The Brook, to be read in full and parts to be memorized.

Composition—Every month should review in its work the work of preceding months and this is especially true of the month that ends any year's work. Have at least one composition in writing requiring division into paragraphs, the teacher furnishing the outline. Review especially the practice in the use of pronouns.

FOURTH YEAR.

The work of this year continues the practice in oral and written reproductions. There is special emphasis on collecting around each main point its related details, and in written work this means special emprasis on paragraphing. The form as to margins and indentions should be pretty well mastered by the end of this year. Language drills for this year continue practice in use of pronouns and take up drills in the correct use of irregular verbs. The letter-writing of this grade includes the addressing of envelopes, writing of short business letters such as those ordering goods; also the writing of informal notes of invitation, etc.

FIRST MONTH.

Reproduction of stories told them expressly for language work, or of stories told or facts observed in other subjects. Let the teacher place on the board a question outline as suggested for last year. Later let her use at times a topical outline; in written work each paragraph of questions or each general heading of the topical outline indicates the material for one paragraph of the pupil's composition.

Review the drills in use of pronouns (See any good language book for suggestions. Badlam's Suggestive Lessons in Language, Heath & Co., 50c, is one good one for the teacher's use.) Teach the formation of plurals under the general rule of adding an s or es. Help them to develop their own rule.

Read and explain Whittier's Barefoot Boy; memorize parts of it.

SECOND MONTH.

Continue reproductions of stories or material from other lessons or possibly sometimes a story or composition based on a picture. Let the teacher put on the board the three or four or five general headings she expects to use for some written reproduction, and have the pupils in their preparation choose and fill in under these main heads the proper sub-heads or details. In class, the teacher and pupils together work out the best order and selection of these sub-heads. Then the story is told from this outline and possibly for the next day it is written.

Drills on pronouns in such sentences as, It was I who did it; It was they (or Mary and he) who were there.

Plurals of words ending in y, f, or fe. (Using only such words as the pupils now need or soon will need.)

Literature—Field's Dutch Lullaby.

THIRD MONTH.

Put on the board a form of a letter ordering goods (carefully margined and punctuated); let the pupils copy or let them write a similar letter to some other firm ordering some other item of goods. Insist on accuracy of form.

If this month falls in November much of the reproduction work will center around the Pilgrims and Thanksgiving; if not, go to the nature study, or elementary sociology, or physiology for material.

Drills on irregular verbs begin to receive emphasis; select one or two your pupils frequently misuse, possibly saw and seen, come and came. See language books for suggestions.

Plurals continued, bringing in many illustrations from words in the acquaintance and use of the pupils.

Literature—The Village Blacksmith.

FOURTH MONTH.

Verb drills continue with emphasis on broke and broken, spoke and spoken. It is understood that the verbs mentioned for any month are merely suggestive and if your pupils seldom make mistakes in the use of those suggested, replace them with others or with other language work that are problems for your pupils.

Business letters continued, ordering two or three things instead of one and possibly enclosing P. O. money order or bank draft in payment.

Have at least two full oral reproductions of stories or other material, and one written,—more if time permits.

Literature—Thaxter's The Sparrows.

FIFTH MONTH.

Study the parts of a letter and the folding of letters and addressing of envelopes. In verb drills this month emphasize drove and driven, rode and ridden, went and gone. (One device used is to place on the board the three principal parts of several verbs including the verbs to be used that day. Without giving the grammatical names of these principal parts tell the pupils that when we are talking about something that was done in time gone by, if we use have, had, or has we use with it the third form, but if we wish to tell of the action in one word we use the second form always. Then the teacher presents a series of sentences using various forms of some verb, as in I saw the bird. I see the bird. I have seen the bird. I shall see the bird. He had seen the bird, etc. The pupil is taught to give some other sentence with the corresponding form as in the following:

TEACHER	PUPIL
I see the bird.	I drive the team
I saw the bird.	I drove the team.
You may see the bird.	You may drive the team.
I had seen the bird.	I had driven the team.
We have seen the bird.	We have driven the team.
They will see the bird.	They will drive the team.
He has seen the bird, etc.	He has driven the team, etc.

Literature—Selections from Snowbound; Psalm CXXI.

SIXTH MONTH.

Business letters continued, asking for correction of errors in bills, errors in shipping as sending of wrong goods, etc.

Irregular verb drills continued, reviewing frequently those already studied and adding flew and flown and two to four others that make trouble for your pupils.

The reproduction work this year has taught the pupils to talk or write from an outline, either question or topical, and to paragraph according to it. During the remainder of the year there should be frequent "study recitations" where teacher and pupils work together in the making out of outlines. See second and third months for suggstions. Let the pupils problem in study period be sometimes the making of a list of a dozen to twenty points that ought to be told in telling the story, and class time be devoted to organizing these. Another time let the teacher place on the board the fifteen or twenty items, and the pupil find three to five general headings under which to group them and then group the items under these headings. In any case the recitation period should generally begin with some discussion of these outlines and improvement of them; then the pupils may tell the story or recite the facts observed using their outline as a basis, or may have for next day's assignment the writing up of a composition using their outline as a basis.

Literature—Holmes, Old Ironsides.

SEVENTH MONTH.

Irregular verbs continued, with reviews and special drill on began and begun, ran and run, sang and sung, drank and drunk.

In the oral and written work of all subjects emphasize organization of the facts.

Have two or three letters written, answering advertisements for "Help wanted," e. g., some one has advertised for an office boy—let pupils write an application for the place.

Literature—Hood's I Remember, I Remember, memorized; read to the class story of Joseph.

EIGHTH MONTH.

Irregular verbs for this month are ate and eaten, write and written, and the forms of two other verbs you have heard your pupils misuse. Do not confine the drills to one or two devices; look at all the language books available

and use all the devices and drills you think likely to be helpful to your class. Do not however adopt the plan of putting incorrect forms on the board for your pupils to correct.

Stories have probably been the basis of most of the reproductions thus far. This month try the plan several times of having the class write up the facts observed in a nature study lesson, or the analysis of a problem in arithmetic, or the summary of a geography lesson

Literature—Hemans, The Voice of Spring.

NINTH MONTH.

Review the irregular verbs taught during the year and add exercises in the use of lay and lain, and laid.

Have one business letter, and one social letter of at least three paragraphs, and one story reproduction and the summarizing of the facts of one lesson written during the month's work in language; and as much more as time permits, especially to emphasize any one of these that gives particular trouble.

Literature—Phoebe Cary, The Leak in the Dyke; explain the conditions in Holland and make clear the meaning of the story. Memorize parts of it.

FIFTH YEAR.

This year's work continues practice in composition using it more and more as a help to the other subjects; drills in irregular verbs continue, sometimes definite verbs being mentioned, always with the understanding however that the teacher drill her pupils on other verbs than those mentioned in the Course if they need drill on other verbs more; the practice in letter-writing continues, with the emphasis this year on social letters; sentences are classified as to use and pupils should be learning to use such words as subject and predicate, noun and verb, without however having formal definitions for them; the common abbreviations met with in reading or geography lesson or elsewhere should be noticed and occasionally brought together as a part of some language lesson.

FIRST MONTH.

Composition—In the reproductions, oral or written, aim to get a good start for the year's work by care on the pupil's part as to margins, punctuation, correct English, organization of thought, so far as the work of the preceding grades make possible. In the drills notice particularly is and are, was and were and the common contractions, isn't, aren't, wasn't, weren't, hasn't, doesn't, don't, haven't, and hadn't. Insist on "am not" in its proper place.

Literature—Whittier's Barbara Frietchie, read and parts of it memorized; review Helen Hunt's September.

SECOND MONTH.

In reproductions continue talking or writing from outline; besides the stories reproduced, have the class write an account of an imaginary trip down the Amazon, or a visit to a coffee or rubber plantation. Drill on took and taken,

gave and given. Have pupils find sentences, telling or declarative sentences, question or interrogative sentences, in reading lessons or other material.

Literature—Newman's Lead, Kindly Light.

THIRD MONTH.

Suggested topics for compositions—Standish's expedition against the Indians, The First Winter at Plymouth; Occupations and Products of the British Isles (paragraph for each country). Drill on chose and chosen, froze and frozen, rose and risen. Continue finding sentences of various kinds, adding the imperative sentence; pay little attention to accurate definitions, but much to neatness, margins, and punctuation in the writing of the sentences.

Literature—Hemans, Landing of the Pilgrims, explained and memorized.

FOURTH MONTH.

Let the pupils outline some story from the reading lesson and then tell it from their outline; same thing occasionally with a geography or physiology or other lesson. Oral and written compositions may well be a part of the Christmas program. Drill on flowed, flew and flown (Here as elsewhere do not bring together two forms which your pupils seldom or never interchange.) Pupils continue classifying sentences and writing sentences of various kinds.

Literature—Cary, Litle Gottlieb.

FIFTH MONTH.

Pupils write one or two business letters, orders for goods, sending money to pay certain bills etc. Then class make a study of social letters, noticing the parts, suitable forms for salutation, and for complimentary close, then write a short letter or two, then a letter or two of some length, telling some distant relative how they celebrated Thanksgiving or Christmas (possibly actually sending the letters.) See any good language texts for forms; be strictly accurate in the forms you place before them on the board, and insist on every comma, period, abbreviation, and margin just as it ought to be. Continue drills in irregular verbs adding any that your school seems to need. Explain and illustrate in easy sentences the meaning of subjects and predicate; give five minutes to this work occasionally in the language period and once in a while ask in reading lesson for the subject or predicate of some sentence.

Literature—America, explained and memorized correctly.

SIXTH MONTH.

Many of the stories of various subjects in February will center around Lincoln, Washington, or Longfellow; these stories from whatever subject will be all the more valuable to the pupils if used as bases for oral or written language work. The assignments in the various subjects will at different times include such work as a paragraph about some incident in the life of one of these

leaders, or putting in the pupils own words a stanza or two of some narrative poem, a paragraph or stanza to be studies by the pupil and then written from dictation, or a letter describing the celebration of some one of the holidays.

Pick out nouns and after the pupils get so that they generally recognize a noun call to their attention that some of the nouns mean more than one and some of them only one—singular and plural.

Literature to memorize—Bryant, Abraham Lincoln.

SEVENTH MONTH.

Compositions—One business letter and one social letter; one long reproduction—occupying a period for outline and a study and recitation period to write. Teach the use of the hyphen in dividing words at the end of the line. The special study in formal language this month is forming the possessives of ordinary nouns; start with forms they are thoroly familiar with, develop the rule, and then let them apply it to many words they are in the habit of using.

Literature—Have Star Spangled Banner memorized, after being explained.

EIGHTH MONTH.

Composition—At least one letter or reproduction of a period's length each week in language period and often some outlining or talking or writing from outline or writing of short summaries in reading, geography, history, etc. Continue work in forming possessives introducing the irregular forms in ordinary use as men's, women's. Have one or two lessons on the common abbreviations met with thus far.

Literature—Explain and have memorized, Paul Revere's Ride.

NINTH MONTH.

Review the irregular verbs studies this year.

Collect the uses of the comma so far as the class has had an opportunity to get acquainted with them.

Compositions collect around the observance of Memorial Day, and around the work of the other subjects.

Literature—The Blue and the Gray, or Woodman, Spare That Tree.

SIXTH YEAR.

In composition work from now on advance is not so much in form as in organization of thought, in ability to seize the essentials and to arrange them properly on the one hand, or on the other hand to expand a general topic by putting under it the details that belong to it. The biography in history and the summary or imaginary journey in geography will furnish much material for language, tho here as always any good material is to be used what ever lesson it be from.

Some paragraphing may be done in keeping to the author's wording mainly but changing certain indicated words.

Social correspondence should now include formal and informal notes of invitation, acceptance, regrets, etc. Business letters, advertisements for things lost, or of things found, applications for positions, should receive several lessons.

Pupils should now receive several lessons in condensing phrases to words, clauses to phrases, etc. Some work in choice of connectives should be carried on from this grade thro the eighth grade.

In grammar the pupil should by the end of this year know the various parts of speech in ordinary and simple constructions, but this use of the names is merely as names, with a general idea of the meaning but without closely drawn distinctions.

FIRST MONTH.

Tell the story of Glueck's Visitor; pupils reproduce the story orally, and then in writing from an outline given them by the teacher. Every day after the first week should call on the pupil for some written work in some subject—not always in any one subject, but sometimes in one, sometimes in another. In all this written work the same care in punctuation, form, and wording is needed in history or geography papers as in language. Correct use of less and fewer, much and many. Make lists of nouns (These lists tho for any part of speech are not to take very much time—the yshould always be the minor part of the assignment.) Also in short easy sentences give much practice in selecting whole subject and whole predicate, and the main word or words in each, tho we are not striving for definitions or close distinctions—especially in the compound tenses of the verbs. Note that the main word of the subject is not always a noun; help pupils to get to know the pronouns in ordinary use, tho not worrying them with definitions. The child finds the word chair, or shovel, or spoon, a very useful part of the language, tho it would puzzle him or his teacher to give a good definition of any of these words.

Literature—Ruskin's Glueck's Visitor.

SECOND MONTH.

Composition—In this month's work, emphasize the outlining of lessons; let the pupils every day get some practice in outlining some lesson, sometimes filling in the main sub-heads after the teacher has given the general headings, sometimes himself selecting the general topics, sometimes the teacher puts on the board the fifteen or twenty items of a biography or other lesson and the pupil studies them to group them in four or five groups, perhaps writing up his summary of some one of the topics.

Review the drills in the use of I, he, she, we, they, me, us, them, him, her, if class seems to need it.

Literature—Thaxter's Maize the Nation's Emblem.

THIRD MONTH.

This month's work is to emphasize writing from outlines, writings short summaries, etc. Sometimes call for a paragraph summarizing the lesson in geography or history, physiology or reading, or some part of one of these lessons.

Sometimes give a full outline from which the pupil can write a composition of such length as to take him his study time for one day's lesson to prepare. Modifiers of nouns receive some attention; help the pupils to notice that some modifiers are single words and that some are groups of words that belong together—phrases.

Literature—Sheeley's The Cloud.

FOURTH MONTH.

Composition—Reproductions, outlines, and summaries continued. Take a paragraph from some reader and break up its long sentences into shorter ones. E. g., "My master often drove me in double harness with my mother because she was steady and could teach me how to go better than a strange horse could," might be placed on the board; "My master often drove me in double harness. He drove me with my mother. She was steady. She could teach me how to go. A strange horse could not teach me so well." Place on the board several sentences thus broken in parts, and with them a list of words like because, as, but, when, since, while, etc., asking the pupils to write the same facts in fewer sentences using the connectives found on the board. Be sure to place on the board all the connectives needed, and do not expect the pupils to get just the sentences in the reader. If they get the thought and have expressed it correctly in fewer sentences they have met the requirement. In the same way they may take one of their own paragraphs or longer compositions and with a list of connectives before them may combine their short sentences into longer sentences.

Continue practice in selecting simple subject and predicate, whole subject and predicate.

Literature—Burton's Christmastide.

FIFTH MONTH.

Compositions as in preceding months. Make use of some written work in every subject tho of course not every day in any one subject. Papers written for geography or history may be discussed as to *fact* in that subject, and as to form, language, etc., in the language class.

Bring one or two of the bills over from the arithmetic period for language work; receipt the bills.

In reading class sometimes ask for subject, predciate, nouns, adjectives, etc. Spend some time this month on adverbs and adverbial phrases.

Literature—Whittier's King Solomon and the Ants to be memorized, selections from Snowbound to be read.

SIXTH MONTH.

Continue reproductions, outlining, and summarizing, and practice in the use of connectives.

Sometimes place on the board a paragraph with blanks in the place of connectives (conj. or prep.), the pupils to write the exercise putting in connectives. Do not expect exact agreement; if the connective the pupil selects is suitable accaccept it. Another exercise is to ask pupils to write sentences using given connectives.

Have two or three each of business and social letters written. (Probably would better begin with a lesson on exact form and punctuation).

Literature—Memorize Byron's Washington.

SEVENTH MONTH.

Comopsitions—Every subject calls for occasional outlines, paragrph summaries, or longer sumamries. Have some of these written up in the language work and some of them in the regular work of their own subjects, but everywhere have them well written and kept up to the standard of language work. Give a few exercises in condensing phrases to words, cluases to phrases or words, and a few in seeking variety of wordings; as, e. g., the expression "a rich man," might be worded, a man of wealth, a wealthy man, a man of property, and a man who had a great deal of property, etc. Teach informal and formal notes of invitation, acceptance, regrests, etc. (See any good language text for forms.) Spend part of the recitation period of two or three days in pointing out easy sentences the object or object compliment of the verb; do not give difficult or extensive drills in this work but frequently call upon pupils to name the object in some easy sentence they are reading.

Literature—Longfellow's Legend of the Crossbill, to be memorized.

EIGHTH MONTH.

Review business letters; review plurals and possessives. In several easy sentences point out the atribute complement and give occasional practice in recognizing it as was done last month with object complements. At least once each week have one written composition, outline, summary, paraphrase, or other exercise long enougm to occupy an hour in its preparation.

Literature—Van Dyke's Ruby Crowned Kinglet to be memorized. With it read Bryant's To a Waterfowl.

NINTH MONTH.

General review of the memory gems of the year and restatement of their meaning (where at all suitable) in the pupils own words. Review of letters and social notes, and a few lessons reviewing the pupil's knowledge of subject, predicate, complements, nouns, verbs, etc., tho this review is in the way of illustrations rather than definitions.

Literature—O'Hara's Bivouac of the Dead.

SEVENTH YEAR.

The literature work of the year calls as heretofore for the reading and study of one or two standard pieces of literature each month, and the memorizing of at least parts of them. The composition includes all the kinds of work that have been given in preceding years. The reproductions call for more independence of text or teacher; in geography, history, physiology, or reading, the pupil may be asked to report orally or in writing reference work from other texts or from library books. In reading they may be asked to report on the geograph-

ical or historical setting of the selection, to report on particular allusions, etc.; in all subjects there should be much outlining, and talking or writing from either their own outlines or those furnished by the teacher; or in reading or history they may be asked to trace the career of a particular personage, as Evangeline, Miles Standish, Basil, Samuel Adams. Pupils should be called on frequently either in the language period or arithmetic period to write the checks, drafts, receipts, notes, needed in his work in arithmetic. The grammar of this year deals with the simple sentence and in it all, the teacher should remember that the purpose is not to have the pupil unravel a lot of linguistic tangles, but to give him much practice in finding the thought elements of the ordinary sentence. About a third of the time should be devoted in this and the next grade to spelling; of course the better way will be to devote occasionally a whole period to spelling, but generally to have a few words for the pupil to learn to spell in addition to the other language work of the day.

FIRST MONTH.

Literature—Study the meaning of Lowell's Youssouf and then memorize it; teacher read to the class and explain Paslm XIX.

Composition—Pupil tell or write in his own words the thoughts of the second or third stanza of Youssouf; similar assignments from the reading lesson. Pupils study and talk from outlines given by the teachers in their elementary agriculture. Drills to eradicate some of the worst of their errors of speech.

Grammar—Review their studies of the sentence ,the kinds of sentences as to use, subject and predicate; develop definitions of the noun, pronoun, verb, but do not be too technical.

SECOND MONTH.

Literature—Whittier's The Huskers to be memorized after the meaning is understood.

Composition—Every recitation in any subject should be in part an oral language lesson. For written exercises let the pupils write in their own words parts of some selection being studied; let them make a series of questions in the study of some of their lessons let them write up the facts observed in their agriculture lesson or some trip to the woods; or write a short biography of Whittier.

Grammar—In dozens of sentences have the pupils find whole subject and whole predicate, simple subjects and simple predicate. Note the order inverted thro the use of there or it, sometimes as in, From spire and barn looked westerly the patient weather-cocks. Grammar is credited with being a great help to one's thinking or reading; much of this comes thru clear recognition of what we are talking about—subject, simple or modified—and what we say about it—predicate, simple or modified.

THIRD MONTH.

Literature—Lowell's Wendell Philips, and Lowell's Midnight.

Composition—Continue as in preceding months; use frequent dictation exercises.

Grammar—Continue the work of the preceding month and add the copula and its attribute complement or predicate nominative.

FOURTH MONTH.

Literature—Lowell's Present Crisis read to the class and its meaning studied out; three or four stanzas and the common quotations memorized.

Composition—The outlining of lessons. Physiology especially as it is to be completed soon calls during the remaining time of its study for much outlining, summarizing and frequent reports from other texts, magazines, or paers. In the language period present several model forms for business letters.

Grammar—Spend the few days that can be given to grammar on the object complement and after a few lessons on it give practice on many easy sentences containing sometimes attribute complements and sometimes objects.

FIFTH MONTH.

Literature—Whittier's Frost Spirit to be memorized.

Composition—Continued in connection with other lessons as usual. In any study of business forms be careful to make clear the distinction that a note is a promise to pay while a check or draft is an order to pay.

Grammar—Give several days practice in analyzing not too difficult sentences, pointing out the whole subject and predicate, simple subject and predicate, object or attribute complement.

SIXTH MONTH.

Literature—Moore's Those Evening Bells, and the Gettysburg Address.

Composition—Business forms and letters written and two social letters of some length written. Continue the oral and written work with the other lessons and try to keep it to the highest possible standard of English.

Grammar—Give a few sentences containing Double Object, i. e., two words for the same person or thing as used after verbs of naming, thinking, and the like; e. g. They named the boy John. The people elected Taft president. Also a few containing the indirect object. Then proceed with anaylsis as in the preceding month putting into the sentences occasionally some containing double or indirect objects.

SEVENTH MONTH.

Literature—Lowell's The Oak. Read to the class Lamb's story of Macbeth.

Composition—As in preceding months.

Grammar—Study the modifiers of the simple subject—adjectives and adjective phrases. Learn the comparison of the common irregularity compared adjectives.

EIGHTH MONTH.

Literature—Lowell's To a Dandeloin; read to the class another of Lamb's Tales from Shakespeare.

Composition—Every subject should call for outlines, summaries and once in a while for special reports; along with the poems from Lowell the class should

be getting together facts of Lowells life and these should be the basis of considerable oral reproduction work.

Grammar—Study the modifiers of the simple practice,—adverbs, adverbial phrases and indirected objects. Learn the comparison of the common irregulaly compared adverbs.

NINTH MONTH.

Literature—Lowell's William Lloyd Garrison to be studied and parts of it memorized.

....*Composition*—Much talking from outlines in reviews in the various subjects, and a few carefully written plays of some length. Essay on Lowell's life and the review of the pieces memorized from him during the year.

Grammar—Review of analysis of the simple sentences so far as provided for in the work done in preceding months; in addition some drill on correct choice of adverb or adjective to follow verbs of different kinds, as in the following: The horse travels slowly. He is slow. He seems slow but he really travels quite rapidly, etc.

EIGHTH YEAR.

In the eighth year the pupil should continue to memorize one or more selections each month, and should read in the course of the year several library books, some in connection with his geography, history, or reading, and some of them books of fiction, humor, travel, etc. In connection with composition the pupil write as before social and business letters, social notes, business papers; and now makes a close study of appropriate wording of them. In the various subjects he is writing character sketches, summaries, outlines, special reports from reference books, etc. The grammar of this grade deals with the analysis of the complex sentence in many easy illustrations, and with studies and drills in the parts of speech so far as these studies affect the pupil's correct use of English. As in the preceding year about one-third of the time is given to spelling.

FIRST MONTH.

Literature—Some selection of prose or poetry from the reading lesson to be memorized; or Kipling's Recessional, of Goldsmith's Village Preacher.

Composition—Numerous outlines in geography, agriculture, or history, or summaries from outlines given by the teacher. At least one of these outlines or summaries each week should be taken over to the language period for study of its form and wording.

Grammar—Finding in many simple sentences whole subjects and predicate, simple subjects and predicate, the complement if any and the modifiers of each of these main parts of the sentence.

SECOND MONTH.

Literature—Study and memorize Whittier's Abraham Davenport and the first stanza of Drake's American Flag.

Composition—Thoro study of social letters; have a few of the pupil's letters placed on the board and study them to improve their arrangement, wording, form, etc. Written work continues in other subjects and good form insisted on.

Grammar—Give many easy sentences containing adjective or relative classes; have the pupils find the adjective clauses and in it, its subject, predicate verb, and its complement if any. Put one or two days on adjective clauses like that in "I remember the house where I was born."

THIRD MONTH.

Literature—Whittier's For an Autumn Festival.

Composition—Business letters to receive special emphasis; work not simply for form but for a brief, definite, and business-like wording.

Grammar—Complex sentences containing adverbial clauses. Pupil should become acquainted with the common connectives used to introduce adverbial clauses. The sentences used should be generally easy ones; it is not digging out a few difficult puzzles that gives a pupil a knowledge of English, but much practice with the English he can grasp with reasonable ease. The pupils can frequently be asked to advantage to point out adjective or adverbial clauses, the subject, the predicate verb etc., in sentences too long or too difficult for time to be taken to work out the whole sentences; this may be done often in reading, and even in other subjects will often be a means of helping to clear up the meaning.

FOURTH MONTH.

Literature—Death of the Old Year, or other selection from Tennyson; read to the school the Bible stories of Christmas.

Composition—Besides the written work in the various subjects, have one composition each week in language; or sometimes in place of it let the pupils talk from their own or the teacher's outline.

Grammar—Complex sentences containing substantive clauses, but not too difficult sentences.

FIFTH MONTH.

Literature—Chambered Nautilus memorized; or Whittier's New Year studied and parts of it memorized.

Composition—Keep the written work of all subjects up to standard. Study especially the business forms, notes, drafts, receipts, and work for a suitable wording (notes and drafts have a pretty definite form, but receipts vary with the transaction and the teacher should try to think of several different kinds of transactions and have the pupils work for a brief form of receipt which yet covers the necessary facts.)

Grammar—Teach the Nominative case as the subject and predicate nominative, and the nominative by apposition; teach the following uses of the Objective case—object of a verb or preposition, objective by apposition, indirect object. Drill on correct use of the pronouns, testing results by these rules.

SIXTH MONTH.

Literature—Read Whittier's Ichabod and Tennyson's Sir Galahad; memorize parts.

Composition—Both oral and written. Study especially the correction of any errors of speech that make trouble for your pupils.

Grammar—Formation of plurals and possessives; drill on the pronouns continues from last month unless success has been already attained.

SEVENTH MONTH.

Literature—Stevenson's The Little Land; parts of Snowbound, or Parable of the Sower.

Composition—Oral recitation on the chief facts of Whittier's life; then an outline worked out by the teacher and pupils together; then the writing of an essay from the outline. Each week one written summary in geography, history, or civics.

Grammar—Principal parts of the commonly used in regular verbs. Much practice in their use (See course for intermediate grades for suggestions.)

EIGHTH MONTH.

Literature—Bryant's Return of the Birds.

Composition—One character sketch in history and one in reading and let each pupil give one or more special reports either oral or in writing, in reading, history, geography, or agriculture, on material looked up outside the regular texts.

Grammar—Teach use and meaning of the six tenses; show clearly their time relation. Continue drill in the use of the irregular verbs if it is needed by your class.

NINTH MONTH.

Literature—My Native Land, Tennyson's Crossing the Bar .

Composition—Much outlining, summarizing, and talking from outlines in the different subjetcs; frequent oral or written reports from sources outside the text.

Grammar—General review of analysis and of the drills so far as there seems to be need.

Writing

FIRST YEAR.

As to the slant in writing, the essential thing is uniformity. The best teachers of writing now favor the use of copy books only as reference books for teachers and pupils—not as books in which the forms are copied. Copying in the books nearly always discourage free movement.

As soon as the pupils can write, have them copy all the new words in the lesson each day. Before leaving this grade each pupil should be able:—

1. To write his name well.
2. To write his post office address.
3. To write the name of his township, county and state.
4. To write the names of familiar objects.
5. To write lists of words from the reading lesson.
6. To write short sentences of from three to six words.

Slate or paper should have rulings as a guide for the base of the writing. The pencil should be at least four inches long.

SECOND YEAR.

Continue writing with pencil. Attention should be given to position of paper, manner of holding pencil, also to the direction from which the light strikes the paper. See to it that the pupil's eyes are not in range of the reflected light.

Teachers should attend to the following:—

1. Rule paper with headlines having spaces at least 3-16 in. wide.
2. Secure easy and natural position at desk.
3. Show the pupil *how* to make a letter, not upon the blackboard only, but upon his paper; especially do this in teaching the use of the pen. Do not confine pupils to the letter; make the word of short sentence the unit of their work though older pupils can be interested in the elemnets and should master them.
4. Do not ask first and second year pupils to write too long at a time. When pen is used, preserve one copy of pupil's work each week for future comparison.
5. Insist on neatness.
6. Never chide the poor penman, but notice improvements, even if slight.

THIRD YEAR.

Materials—One copy book for the entire year, good ink, pen that will not scratch, straight holder, penwiper, blotter, practice paper (foolscap cut in sheets about the size of copybook, in which it should be kept), and blackboard.

Copybooks—Use more for their copies than their writing space. Refer frequently to the copies and study the forms of letters and words, even when writing on the board of practice paper.

Position and Pen Holding—Follow direction on cover of copybook.

Capitals—A good plan is to teach capitals incidentally. When pupils have use for a capital, teach them how to make it. Near the close of the year review and make a special study of the capital. Their classification may be found on the cover of almost any copybook.

Small Letters—Take up the small letters by groupings, giving special attention to the types. Emphasize the characteristic marks of individual letters, especially those in letters liable to be confused with others. The *a* is frequently so made as to be taken for *o*. Show pupils that the down stroke in the *a* is its essential feature. The letter *i* is its "backbone." The *u* and *n* are frequently confused in writing. Show that the one is rounded below, the other is rounded above. The lower part of *b* is frequently made incorrectly. Show that it is made like the *v*. Similar comparisons and groupings should be made whenever certain important lines in letters tend to be ignored or confused with other letters. Attention to these clear distinctions at the start may make all the difference between legible and illegible writing.

Figures—Give frequent drills on the figures, requiring the pupils to make them rapidly and well. Their constant use is demanded in a practical way.

FOURTH, FIFTH AND SIXTH YEARS.

Class—The same period in writing may be used for fourth, fifth and sixth years pupils. If necessary, it may be limited to fifteen minutes' actual drill, but should not exceed twenty-five. It ought to be daily.

Materials—Every pupil should be supplied with a copybook, and paper cut to convenient size to keep i nthe copybook. The number or grade of his copybook should be determined not by the class but by the special needs of each individual pupil. Suitable pen, ink and blotter must be furnished by the district where books and supplies are "free," otherwise by the pupils.

Train the pupil to be scrupulously neat and orderly in taking out, in handling and putting away writing materials. Most desks are furnished with inkwells. The pupil should have a place for his copybook and pen. He should keep his copybook, his paper, his desk, and his hands and fingers free from ink spots. The floor must not be specked with ink. The pen should always be wiped.

If trouble is experienced in regard to neatness, let class *prepare for writing* and *put away materials to* counts.

It is of the greatest importance in order to secure good results and also on account of the pupils' health, that desks should be of proper height and size. The single desk is in every way preferable to the double desk.

Aim—During these three years the pupil should study writing as an art. The first work will be to secure easy, rapid movement—what is commonly

called the muscular movement. The exact formation of the letters is, therefore, not of the most importance. Coppybooks should be used mainly for reference. Teachers will find the attempt to imitate copies in a book a check to the movement so laboriously acquired through the exercises. Where this fault is found, writing in the copybook ought to be stopped and the free exercises and phrase writing resumed.

Position—Follow directions usually found in the copybook. See that the pupils sit in a good position. The weight of the body should not rest upon the arm that does the writing. Some teachers find it helpful to give pupils the idea of pivotal motion by letting pupils at first rest the weight on the forearm muscle. Gradually as the pupil gains control he can distribute his weight more evenly among feet and arms. It is better to have weight rest on forearm muscle than to rub sleeve on desk in a constrained attempt to produce a pivot, without the rest necessary to the idea of a pivot.

For muscular movement the muscle of the forearm must be upon the desk.

General Drill—The muscular movement may be acquired by a course of training on movement exercise and simple letters, (see copybook manual) not in a few weeks or a term but possibly during a school year. Do not expect results too soon. Drill for speed and for skill. Advance little and review much, remembering that an exercise is valuable only in proportion as it is mastered. Supplement the drill exercises given in copybook with blackboard work, explaining and studying the forms practiced by the class. In order to steady class down to a smooth movement and also to gain control of arm, it may be necessary to use counts, pausing slightly at starting points and angles where combinations of letters are made. The counting should be regular but varied in rapidity.

Individual Work—Copybooks may be used after drill to show daily progress. At the beginning of the term have each pupil write a stanza of America, and each succeeding month rewrite it, preserving the copies for *comparison*. After general drill special attention should be given the needs of the individual pupil, the teacher passing from desk to desk, noting the work.

Other Work—All written work should be neat and legible. Accept no scribbled or blotted exercise in any recitation. Continue to drill on the figures.

SEVENTH AND EIGHTH YEARS.

Every pupil should have an advanced copybook for reference. Combine seventh and eighth years, but let the class use same period for writing as the other class or classes.

If suitable subject matter is selected, making the period a study in English, composition, business forms, forms of social correspondence, besides being a drill in movement and form of small and large letters, it will be easy to make this period as interesting and profitable as any school exercise.

The pupil shoud strive to acquire an easy, simple, legible handwriting, well rounded small letters, simple capitals (permit no "frills or ruffles"), and uniform spacing.

Pay special attention to paragraphing, indenting and margins.

Letter Writing—The necessary requisites of a good letter are: 1. That it should be legible. 2. That it should state definitely where written, when, by whom, and to whom. 3. That it should begin and end courteously and appropriately. 4. That the style should depend upon the relation between the writer and the one to whom he writes, the circumstances under which he writes, and that about which he writes.

Pupils learn to write good English by practice, give them much drill in social and business letter writing.

FIRST MONTH.

Business—Let business letters, as a rule, be short; but omit no information necessary to a proper understanding of the business in hand. The meaning should be so clear as to admit no possibility of a misunderstanding. Teach a model form, then furnish data from day to day to which pupils may give proper wording and put in form.

Include many articles of letters, pertaining to various kinds of business.

Teach classification of parts of business letter, i. e., heading, (place and date) address, salutation, body, complimentary close, signature.

Also address of envelope and position of stamp.

SECOND MONTH.

Social Letters—Social letters are of various kinds. Adapt the style to the nature of the case. (See 4, under Letter Writing.)

For example, write: (1) A short note, asking a friend to spend an evening with you; (2) a reply, accepting the invitation; (3) a reply, declining the invitation; (4) a more formal note, introducing a friend to another; (5) a formal invitation in the third person; (6) a petition to a faculty, or some person or persons in authority; (7) a familiar letter of friendship to an old acquaintance.

THIRD MONTH.

Notes—Distinguished between (1) negotiable and non-negotiable notes; (2) individual and joint notes; (3) time and demand notes; (4) bills receivable and bills payable. Teach the meaning of "or order," "or bearer," "maker," "payer," "payee," and "endorser." Show model form, furnish data, and give pupils practice on all kinds of notes.

FOURTH MONTH.

Receipts and Checks—Teach *receipts, checks, certificates of deposit,* and *deposit slips.* From bankers and other business men may be gotten blanks for these forms, possibly enough to supply the class with models.

A receipt should state (1) what was received; (2) where; (3) when; (4) of whom; (5) by whom; and (6) on what account.

FIFTH MONTH.

Drafts—Distinguish sight drafts and time drafts. Teach the meaning of "drawer," "payee" and "drawee." Compare notes and drafts. A note has necessarily two parties, the *maker* and *payee;* a draft has three parties, the *drawer,*

the *payee* and the *drawee.* Compare an *accepted draft and a note.* Show how exchange is carried on by means of drafts.

SIXTH MONTH.

Bills—Bills may be for goods bought, for services rendered.

Almost every business man has printed bill-heads.

Secure blanks, familiarize pupils with forms of bills, and give them practice in writing bills for as many different kinds of business as practicable.

Cash Account—Teach the form of an account, the purpose of a cash account, the principle of debiting and crediting, and the method of balancing. Teach pupils to do neat ruling and keep their columns of figures straight.

SEVENTH MONTH.

Personal Accounts—Personal accounts, merchandise accounts and the day book.

EIGHTH AND NINTH MONTHS.

Review—Review work for the year, giving special attention to business correspondence.

Pupils should be able to write forms of notes, receipts and bills without referring to copy. Also correct forms of business letters and letters of application.

Note—In all this writing of forms in the last two grades, the teacher must not in working for form and wording, let the pupil get careless as to his penmanship. The aim is first and chiefly that the pupil be learning to write with fair speed a plain easily readable hand-writing; the exercises here suggested are here simply as means to assist the work in writing and to make it more interesting. There are many complaints that in the past pupils who write miserably have gotten a grade in writing by knowing certain forms, while pupils who write well have failed because they did not know the difference between formal and informal invitations, or between notes and drafts. These things are important but they are matters to be tested in the language or arithmetic. In this work in writing, teachers and examiners are urged to put the emphasis on the penmanship itself.

Spelling

The spelling of the first three grades is to be in connection with the reading and language lessons of those grades. Usually it will thus occupy part of the study and part of the recitation periods of those subjects each day, tho occasionally the lesson assigned in language will be solely spelling and dictation exercises, and possibly a reading period will occasionally be given to word-drills and spelling. In the intermediate grades, spelling is to receive careful attention in all written work of whatever subjects, in addition, it, together with physiology and history occupies a period daily; i. e., during the weeks the class has physiology there is an occasional period taken from physiology to give it to spelling, and during the remainder of the year spelling and history divide the time about equally between them, tho not necessarily alternating every day. In the seventh and eight grades the spelling work is mainly done in connection with the blackboard and other written work of the pupil's various lessons, but about a third of the language and grammar time is given to spelling. This will mean that some weeks six to ten words form part of every language lesson with no special period for spelling, and other weeks two study periods and two recitation periods of the language time will be given to spelling, dictation exercises, abbreviations, a few of the best rules of spelling, formation of plurals and possessives, etc.

While spelling in its comprehensive sense is closely related to reading and language, it is not enough, (in the present stage of educational progress, at any rate) to teach it incidentally. It requires special attention. Taking the term narrowly, your motive in teaching should be to remove ground for the common complaint, "You send us boys and girls from school who cannot spell," and to do this by securing a sure memory of the correct sequence of the letters that constitute the particular words that you may have under consideration.

This leads us to the inquiry how such a memory can be gained. First let us note grounds for mental confusion in letter sequence. Confusion arises from (1) defective sense, (2) weak attention, (3) difficulty in distinguishing *the* word from another, (4) attention too long placed upon the incorrect instead of the correct way, and finally (5) lack of drill. The purpose being to avoid or remove confusion, and to develop a sense of certainty, we must unceasingly attack these causes. First of all, make sure that no pupil's eyesight or hearing are defective; if they are, try to have the parents take care of the unfortunate defects without delay. Do not emphasize the wrong ways to spell, but the one and only right one. Let there be no confusion in the original effort to get the word correctly. This effort should be repeated if necessary, and without great delay, until the sequence comes to mind automatically, like the sequence of movements in piano-playing or typewriitng. Every error creates a tendency, which,

if indulged in, soon becomes a pernicious habit. When one first feels the need of spelling a word and finds his memory confused, he should suspend until he assures himself that he is right and not until then should he proceed. But on the other hand he should not fail to proceed, nor delay unduly. This putting of mental emphasis upon the *right* way, and that promptly, is highly important. Immediately one should drill on the newly acquired word until it is mastered. Children will soon learn how much more easily and certainly the lesson is learned if the mind is thus concentrated. Given a teacher with vigilance and a pupil with application, and wonders will result. Good spellers in practical life follow this method. Such often have use for a dictionary and keep one conveniently at hand.

To attain this correct habit is worth while, for those whose spelling is faultless stand one of the most delicate tests of the grain of their culture. The poor speller who excuses his mistakes by saying that the sense is more important than the form is partly right, and yet he probably loses more than he gains from the ridicule and disgust which are aroused from the literal evidence of his slovenliness.

TEXTS

The Bailey-Manuel Spelling Book, published by Houghton Mifflin Co., Chicago emphasizes the use of dictation exercises containing a few lines possessing great literary merit. It provides for three lessons a week from the text, and two lessons a week to be supplied by the teacher. It emphasizes the teacher's collection from the pupil's written work of words needing special attention.

The Champion Spelling Book, by Warren E. Hicks, published by the American Book Co., Chicago, emphasizes rivalry and frequent spelling contests. It makes two new words prominent in each lesson, and develops eight other subordinate ones. It presents about 1,200 words each year, teaching 312 of them with clearness and intensity. Also, it teaches diacritical markings.

Cavin's Orthography, published by C. M. Parker of Taylorville, Ill., is an excellent text for 7th and 8th grade students in word analysis. It is based on the Illinois Course of Study in Spelling, which used to be very much like the course in vogue in North Dakota.

Aiton's Descriptive Speller, published by Ginn and Co., Chicago, has words grouped that are likely to fit in with other lessons of the day or that pertain to some topic in which the children are supposed to have an interest, such as the play-ground, nursery tales, number work, health lessons, domestic affairs, nature study, biography, farm life, birds, etc. It is believed that an interest aroused by this group plan renders spelling lessons less formal. This text also uses dictation exercises freely.

E. G. Ward's Rational Method in Spelling, published by Silver, Burdett & Co., Chicago, emphasizes dictation very much. Two books are provided, the pupil's book and the teacher's manual.

The former is used for study only and the latter for both oral and written recitations. Text book work begins with the third grade. The pupil has a few new words each day, a few sentences and some words for review. The recitation work provides that the teacher shall dictate different sentences from those in the pupil's book, but which contain the words that he has studied, the pupils

not beginning to write until the teacher has dictated all of the sentence, clause, or phrase, depending upon the age and adaptability of the class. The review words may be either written from dictation or spelled orally.

GENERAL SUGGESTIONS

1. Spelling depends upon pronunciation. Children often misspell a word because they do not know precisely what the word is. Careful distinct pronunciation of the word should therefore be the first step in spelling, and the drill in the pronunciation of the spelling lists should be a staple exercise.

2. The teacher should always let the pupils pronounce and spell the words aloud before they study them silently. By spelling aloud we appeal to the auditory memory and bring it to the assistance of the visual memory. For the same reason frequent reviews should be given in the form of oral spelling. In oral spelling the syllables should always be carefully indicated by pauses,—but not pronounced.

3. The words should be studied from lists written or printed in the way we see them in ordinary writing and print; i. e., without diacritical marks, for it is the image of this ordinary form that we wish to stamp upon the visual memory.

4. When lists of words are assigned for a spelling lesson care should be taken that pupils show their meaning. To learn to spell words that we do not understand, and therefore cannot use, is absurd. The best lists are those that are selected from the pupils' written papers and other lessons; although it is usually advisable to supplement such lists with a good spelling book, at least in the upper grades. Such a book may be introduced in the Third or Fourth grades.

5. In selecting words from the pupil's other lessons, it is not always well to take the most difficult that occur there. In such subjects as geography and literature we meet with many unusual words that children should not be asked to learn to spell. The important and reasonably common words are the ones that should receive attention.

6. When dictating words for spelling aim to pronounce them but once, but be sure that each pupil hears them distinctly. Defective hearing need not imply deafness, but simply an inability to discern differences between similar sounds, such as *on* and *in* and *uh*, *ar* and *ur*.

7. Make "Eye and Ear" lists for words whose spelling merely corresponds, but which have, for example, one silent letter. Such lists might be written on the board, with the troublesome letters underscored, as, for example, separate. "Eye" lists should be made up containing words that appeal almost entirely to the visual memory, as for instance *prey*, *ocean*.

THIRD GRADE.

1. Spell important words of all the lessons studied in the grade, selecting especially such as the pupil is able to make use of.

2. Write names of objects in the school room, of boys and girls, of fruits, trees, flowers, parts of a house, building material, occupations, tools, material used for clothing, articles of food, parts of the human body, etc.

3. Give frequent dictation exercises; bring in the use of the apostrophe, homonyms and other matters that can be better taught in sentences than in

isolated words. Drill on such homonyms as bad, bade; be, bee; beat, beet; blew, blue; cent, sent; dew, due; knew, new; knows, nose; etc.

4. Have pupils make lists of words they have misspelled, cultivate a pride in keeping these "black lists" small.

5. Have frequent phonic exercises. Phonics shoul be continued and reviewed until the pupils can give the sounds of all letters and common phonograms.

6. Give exercises in word-building. For example, make a list of words to which "less" can be annexed; words to which "er" can be annexed, or "y," or other suffixes. Make a list of words to which "un" can be pre-fixed; lists to which "mis" and other pre-fixes can be used.

7. Let pupils, with book in hand, pronounce lists of words. Drill on syllabication and accent.

8. When studying the meaning of a word, it is a good practice to call for a synonym, in case we have a synonymous word; or to give a word of opposite meaning,—an antonym. Give synonyms of such words as applaud, cute, dim, frail, tarry, handsome, etc. Antonyms of such words as alike, absent, cold, cheap, come, deep, evil, friend, false, good, keen, long, etc.

FOURTH GRADE.

1. Spell important words taken from the various lessons of the day. If a spelling book is used, it should not furnish more than half the work for the subject.

2. Teach the use of the dictionary, and the principal diacritical markings of the letters as a means of indicating pronunciation.

3. Train pupils to scrutinize the difficult parts of their new words and to fix those in mind.

4. Continue dictation exercises, bringing in the use of the apostrophe, period, question mark, and capital letters.

5. Continue drills in articulation, the sounds of letters and phonograms, syllabication and accent, synonyms, antonyms, and homonyms.

6. Learn the rules for dropping final *e*, changing *y* to *i*, doubling the final consonant, and the rule in regard to *i* before *e*.

7. Give frequent reviews, especially of all misspelled words found in the written work of the classes, but do not expect the pupils to spell all the difficult words met in their studies. Such a demand would be unreasonable.

FIFTH AND SIXTH GRADES.

Continue in the various lines suggested for the fourth grade, reviewing them and extending them as it may seem desirable to do.

Give some attention to common prefixes and suffixes, and other studies in word analysis and word building.

In the dictation exercises include plural forms of nouns, possessives, homonyms, contractions, punctuation, capitalization, and letter writing.

Give articulation drills,—including careful enunciation, pronunciation, and syllabication.

Teach the rules for spelling the plurals; changing *fe* to *ves*, adding *es*, and changing *y* to *ies*.

Have each pupil keep a list of words he has misspelled, and review them until they are well mastered. Have frequent oral spelling matches.

SEVENTH AND EIGHTH GRADES.

In these grades, especially the eighth, the use of the spelling book should depend entirely upon the ability of the class. If it is found that pupils habitually misspell words belonging to lower grade work then advance work in the spelling book should be avoided, and words selected from the other studies and from the work assigned to lower grades. If, on the other hand, the class is strong a richer course may be given, taking up the origin of words,—prefixes, suffixes and roots, some French and Latin phrases found in English print and sometimes heard, and the spelling and pronunciation of such difficult words as "embrolio," "ennui," "boudoir," "esprit de corps." But always remember that the first problem for any class is to secure accuracy in all written work.

Bearing these general suggestions in mind you should plan your work in these grades so as to continue drill in misspelled words, word analysis, the habitual use of the dictionary, articulation and syllabication drills, and dictation exercises.

By the time the pupil graduates from the common school the habit of correct spelling should be well established, and also the habit of observing and mastering the different parts of new words when they are added to the vocabulary.

Geography, Nature Studyand Agriculture

Geography

Geography was defined in the last preceding Course of Study as "the study of man and his physical environment and how he has used and changed the natural conditions to aid his life and development." It is a recognized law that education at any time must be an outgrowth of the knowledge and interests the pupil already possesses; thru these are developed the new knowledge and the new interests. The pupil already knows many things (and is interested in some of them) regarding his natural surroundings,—he knows the domestic animals and some of their characteristics, he knows many things about grains, weeds, trees, weather, local occupations and means of transportation, etc., etc. Here then is the place to begin; his early geography work will be mainly nature study and geography of his home and school surroundings.

It is neither necessary nor wise however to confine his work too strictly to these limits. There is ample material here for more than the time that can be allotted; but it will add interest and value and at the same time be a help to later studies, if along with these studies of local surroundings there are frequent glimpses out into the larger world. Children are always interested in stories of child life in other lands. Primitive people like the Indians, the Eskimos, the Arabs, live a life simple enough to be understood by children and illustrative of the struggles of our ancestors to secure food, shelter, and clothing. The foods and clothing of the children themselves have a story that will often be of interest and at the same time carry the pupil's imagination to other lands and climates. The stories of the reading or language lessons often make references that need geographical facts to explain them. All these things the teacher should utilize as occasion offers and should sometimes make the occasion.

Thus the geography of the lower grades consists of three lines of work, closely related to each other; home geography, nature study, and occasional lessons leading out from these to other lands and peoples. For suggestions as to nature study, go to the course in nature study following the geographical course. The home geography will take up the following and related topics:

I. Oral and Observation Work.

I. Exercises in Location, Direction, Time and Distance.

a. *Location and Directions* In what direction does the sun rise? Set? Where is the sun when it is noon? What objects in the school room are north of you? East of you? South of you? West of you? What objects in sight of the school are north, south, east, west?

(b) *Time*: The teacher should prepare a series of simple observations or calculations involving: (a) seconds; (b) minutes; (c) hours; (d) days; (e) weeks; (f) months; (g) years. (Use calendar.)

(c) *Distance*: The teacher should pay much attention to short and local distances: (a) Measurement in inches; (b) measurement in feet; (c) measurement in yards; (d) measurement in rods; (e) measurement in one-fourth, one-half and one mile; (f) measurements across 40 acres, 80 acres, 160 acres.

II. Exercises on Water Forms: 1. Let the children see and discuss and name all the nearby water forms, as (a) Lakes, ponds, pools, water holes, etc. (b) Rivers, creeks, rivulets, etc.

III. Exercises on Land Forms: (These may be studied along with water forms.) 1. Study by observation around the school house and by short excursions to (a) Hills, slopes, prairies, plains, etc. (b) Ridges, divides, valleys, ravines, gullies, etc.

IV. Exercises Involving Modifications of Land and Water: 1. These observations may be made in conjunction with II and III. (a) Erosion and transportation of fine silt and clay in time of rains. (b) Forming of above into little alluvial cones, banks, etc. (c) Tiny erosion forms, as waterfalls, canyons, etc.

V. Exercises in Rocks, Clay and Soil: 1. The teacher should let the children collect a number of rocks; especially such as granite, sandstone, shale and limestone, common stone, pebbles, clay silts.

2. These should be named and explained in a very brief way.

VI. Exercises in Map Making for the Third Grade: 1. The maps should be outline in character, showing: (a) Location of the school house. (b) Locations of roads, walks, etc. (c) Location of important objects or forms studied near the school house.

VII. Exercises Involving Industrial Geography: (To make a study on the wants of man and how these are supplied.) 1. How seeds are planted or grown into vegetables or plants, producing new seeds.

2 How crops are produced.

3. How these crops are consumed. (a) At home, if so, how, and results. (b) Shipped away; if so, how and for what use?

4. What domestic animals do you know; and how protected? (a) Are these all for the use of man? (b) Are these in part raised for market? If so, how shipped and for what use?

5. What fruits are grown in the neighborhood? How and when consumed?

6. What fruits are eaten here that are not grown in the community? (a) Why do we not grow these fruits? (b) What ones might we grow if we would try?

7. What trees are grown here besides the fruit trees? (a) Use to which these are placed. (b) Where do we get the lumber used for houses, etc?

8. Out of what sort of material is this school house made? (a) Name all the different kinds. (b) Tell how each kind was prepared for the building.

9. Name the different kinds of material out of which men make homes. (a) How many of these have you seen? (b) How many of these are from North Dakota? (c) How many of these came from this country? (d) How are these materials prepared for use?

10. Name all the kinds of material we wear for clothing. (a) Give the story of the preparation of woolen goods. Cotton goods. Silk goods. Leather goods.

11. Name all the leading kinds of farm machinery. (a) For what used? (b) Where manufactured?

12. Make a list of all products sent out of the neighborhood. (a) How transported? (b) For what used?

13. Make a list of all the products brought into the neighborhood. (a) How brought in? (b) Use? (c) Why brought in?

14. Name all the industries in your district.

15. Name all the ways by which men make a living in your community. (See course in elementary sociology for further suggestions along this line.)

VIII. Exercises on Climate: Let students observe the different changes of the weather. (a) Changes in temperatures and some results. (b) Changes in wind and some results. (c) Changes from clear to coludy weather and some results.

For studies in the life of primitive peoples, children of other lands, stories of our common foods and clothing, the questions asked by the pupils themselves, the material in the school readers, the library books, will furnish many suggestions. Every teacher should have in her own or the school library several books like the following: Andrews' Seven Little Sisters and Each and All; Starr's Strange Peoples and American Indians; Dutton's In Field and Pasture and Hunting and Fishing; World and Its People, Children of the Palm Land, Children of the Cold, Big People and Little People of Other Lands.

In all this work dealing with places outside our own country and occasionally in dealing with even American religions use the globe frequently as well as the map in pointing out localities. (Some would say use it before using maps.)

FOURTH GRADE.

In the fourth grade the pupil is introduced to the book. No real teacher will however expect fourth grade geography to consist mainly of recitation by the pupils of material they have learned from the book. Geography has been entirely oral up to the fourth grade and there must be no sudden change. For the first few weeks of the fourth year the work will continue to be oral and the book is used for the pictures it gives of the things the teacher is telling them about; or the pupils find on the map in the book the places, rivers, mountains, etc., which the teacher finds on the wallmap; or sometimes teacher and pupils read together certain paragraphs. For some time (and with many classes the entire year) one must give a large part of nearly every recitation in geography to teaching the pupils to read the text and get something from it, and to get into the habit of hunting up on the map the various things mentioned in the text or in the oral material given by the teacher.

Geography especially in these grades needs to be a live subject. To this end constant use should be made of pictures, magazine articles, geographical news items in the newspapers, folders and other publications of the railroads, scenic post cards, specimens, relics, maps, and charts. The teacher should make a collection of these and encourage the children to contribute. Make the child and his interests the test of material; he wishes to know not dead facts about things that have to him no effect on human beings; but rather what people did or are doing, why they do it, how they do it, and to see where these things are going on. So the Course as laid out suggests not so much a logical grouping of the chief facts about each region as a series of vivid pictures of the leading occupations and types of life in each region.

It is planned to give the first two months to reviewing and systematizing the ideas gained by the pupils in the first three grades, a month to the geography of North Dakota, a month to North America, and the remainder of the year to the various sections of the United States. (About a third of the time should be given to nature study.) (See nature study course.)

FIRST MONTH.

I. Exercises in Location, Direction, Distance: Location of towns, roads, bridges, railroads. These topics teach direction and distance. Teach the units of distance, foot, yard, rod, mile; pupils should measure many short distances in the lower units, and should become quite ready in estimating short distances. Teach the points of the compass and apply them in the direction of familiar objects from the schoolhouse. Have pupils draw map of the schoolhouse and schoolyard, locating roads, walks, etc.

II. Exercises in Water Forms: Clouds, snow, frost, dew, rain. Where is water found in the locality? Its uses?

In all work read to or with the pupils any material in their book that will add interest or clearness to the oral work; especially note any pictures that apply.

SECOND MONTH.

Review and organize the ideas gained from the oral industrial geography and elementary sociology work of the first three years regarding the occupations necessary to supply the needs of the pupils. Study division of labor in the home and neighborhood.

Study the farm (a) comparing the farm in spring with the farm in fall; (b) Comparing the wheat farm, the stock farm, the dairy farm, the farm of the market gardener; (c) The relation of the grain elevator to the farm, the creamery, the grocery store, the blacksmith shop, the school, etc.

Have pupils draw map of the neighborhood, putting in the school house, the principal roads leading to it, the road leading to the village, and the homes of the pupils.

Teacher present a map of the county with the names of the adjacent counties, and showing the pupils' own township and the names of the adjacent townships; also any important rivers or any railroads; the county seat and the village at which the neighborhood trades.

THIRD MONTH—A STUDY OF NORTH DAKOTA.

After a review of local industries and principal products of the locality, let the teacher tell the pupils of the principal occupation of our state agriculture,—and with it the chief facts about agriculture in the Red River valley, agriculture in the central part of the state, and agriculture in the "Slope Country," about stockraising and how it differs in eastern and western parts of the state; about our coal mining; and about our manufacturing of flour, flax-tow, butter, etc. Many of these things the children will figure out for themselves, if given the basic facts of soil, climate, etc.

This discussion of products will lead to a notice of the chief railroads and where outside the state (Minneapolis, Duluth, etc.) they take the products shipped out; and thence to some notice of the chief cities that act as collecting centers for these products, and distributing centers for the imports. What are the principal goods we have to import? (Note in particular the chief centers, imports, and exports of your own locality.)

All this should be taught with constant reference to a state map kept before your class; and there should be frequent incidental naming of rivers, cities, neighboring states, railroads, adjacent counties, etc., and finally the class should be able to close up the month's work with a day or two of review naming as the teacher points out, or pointing out as the teacher names, many of the cities, rivers, etc., and tell many of the facts told to them (tho we are not to forget that the aim has been to interest the pupil and help him to get a general understanding of conditions rather than to have him memorize certain "cut and dried" facts.)

FOURTH MONTH.

Demonstrate by the use of a globe "the great, wide, wonderful world." Note the equator, poles, directions, continents, oceans, seasons, people; many of these things can be taught incidentally in connection with a review of the stories of primitive peoples, child life, and oral geography taken up in the lower grades. Do not forget to use the maps, pictures, and descriptive matter of the geographies in the hands of the pupils so far as it will help in this work.

After about two weeks spent on the world as a whole, study North America noticing the oceans that surround it, the directions of the continents, its general shape, its size (over 100 North Dakotas), the two chief mountain systems, five or six river systems (and their direction as showing slope), the countries of North America and a general notion of their climate, the approximate location of our own state in North America and the United States, and the people of the various regions (whites, negroes, Indians, Eskimos) and where found. Many teachers will teach these facts best by following the French in their exploration of the St. Lawrence and Mississippi valleys (not naming many individual explorers,) De Soto in his wanderings, Lewis and Clarke's expedition, etc.

FIFTH MONTH.

(Divided between the United States as a whole and the New England section.)

The study of the United States is a continuation of the studies of North America begun last month, and can be carried on thru exploration as in the pre-

ceding month; thru imaginary journeys to Florida, New Orleans, New York or Boston, San Francisco, etc.; thru following a car of North Dakota wheat to New York, a car of apples or a barrel of sugar or sack of coffee from its place of production to us here in this state.

NEW ENGLAND SECTION.

Its settlement (connected with the Thanksgiving story); its climate and surface and soil—simply the most striking characteristics; show it is largely driven out of agriculture, and how it comes to be manufacturing and commercial.

Some things to add interest and at the same time give a clear view of New England life might be an account of the quarrying of marble, a story of a whaling voyage or a cod or halibut fishing voyage, an account of a visit to the lumber camps, a visit to a "maple sugar camp," a hunting or fishing trip in northern Maine, stories of Boston in the Revolution, or of ship-building in the early days.

SIX MONTH.

MIDDLE ATLANTIC SECTION

Note its direction from New England and from us, its location in United States, its surrounding and what states it includes, and teach pupils to locate a few of the chief cities.

Tell of its mines of iron and coal, its oil and natural gas; call attention to its oportunities for trade with Europe and the West and Central parts of the United States. Many classes will by this time be able to find out many of these facts from their texts and should in that case be expected to do so, tho the recitation should not be mainly a recitation from the text.

Some things to add interest might be a story of a journey thru a coal mine or a visit to an oil well, a trip to Niagara Falls or to Washington, an imaginary journey along the Erie Canal, a conversation with the pupils regarding the uses of iron and steel, a description of the harbor of New York with its ships and what they bring or carry away, the oyster beds of the Chesapeake, why truck gardening is so important in this section, a seaside resort like Atlantic City.

From the Middle Atlantic section come over into our section; show how the two sections are alike; review North Dakota and use it as a type of the North Central states. Bring out the fact that father south more corn and stock are raised; that in the regions that have coal and iron or peculiar commercial advantages, large manufacturing and commercial centers have grown up; note what and where several of them are. Some special features may be a day at a wheat farm or a stockranch, a day in the pineries, a journey down the Great Lakes or Mississippi, a visit to a packing plant, a day at Gary.

SEVENTH MONTH.

Southern States from Virginia to Texas. Note their location as a part of the United States and their direction from us; the states included; point out a few of the more important rivers; and several of the principal cities, especially New Orleans, Galveston, Charleston, Savannah, Mobile, Memphis.

Some interesting topics would be plantation life before the war, a cotton plantation of today, the making of sugar, the raising of rice, a southern pinery

and its products, the coral builders and coral fishing, a Texas cattle ranch, a day on a tobacco plantation, a visit to an orange grove. Finally a summary furnished largely by the pupils from their texts and the oral work, of the chief products, imports, and cities of the section.

EIGHTH MONTH.

The Plateau States. Locate in the United States and note their direction from the sections previously studied; note their mountains and their lack of large rivers and why; note the sparse population and the few cities; the necessity of irrigation. Some interesting lessons could take up Lewis and Clarke's expedition, a day at a gold mine, or a trip through Yellowstone Park, the canyon of the Colorado, the work of the Mormons at Salt Lake City (how they made the desert into good farms.)

The Pacific States. Located and named. Tell about the discovery of gold in California and the rush of goldseekers; the earthquake at San Francisco, the Japan Stream and its effect on the climate of all the states, a Washington fruit farm, salmon fishing and canning.

NINTH MONTH.

ALASKA, HAWAII, PORTO RICO, THE PHILIPPINES

Alaska—Note its location in North America and its direction from Canada and from United States. Its climate as affected by its distance from the equator and its nearness to the Japan Stream, its people both natives and immigrants. Interesting lessons can be given on the seals and seal-fisheries, salmon fisheries, glaciers, goldmining at Nome.

The sub-tropical dependencies should be located, their size made clear by comparing it with our own or other states (Porto Rico about the size of Monton county, Philippines about half larger than this state.) Notice the similarity of the three in climate and products, and compare as to distance away, commercial advantages, etc.

FIFTH GRADE.

The fourth year's work has aimed to give a bird's eye view of the United States, and a notion of the life and occupations of the various sections; the fifth year gives a similar but still more hasty view of the remaining countries and continents of the world. The material in the hands of the pupil is the remaining portion of the Elementary text. The pupil has had a year's expeirence in the use of a text in geography and is also a stronger reader than he was a year before, so we may expect more from him in the study of his lessons. The work of this year should however be largely of the same kind as was that of the fourth — a series of vivid pictures of the life and occupations of the people studied and how these are influenced by the climate and physical conditions. These studies should be conducted with the map before the pupils much of the time; all of the stories, descriptions, imaginary journeys, etc., should be given definite location in the pupil's mind by constant reference to a wall or text-map, or both, or often on an out-line map quickly drawn on the board by the teacher. It is now generally believed that the carefully drawn and colored maps with

many details common some years ago do not give a fair return for the time they cost; but pupils should do considerable drawing of "skethcy" outline maps put on the board or paper in a few minutes and containing only a few assigned details.

Give about a third of the geography time to Nature Study — (See Nature Study Course.)

FIFTH YEAR.

FIRST MONTH.

Canada and Newfoundland. Note location; climate affected by location and by the Greenland and Japan currents; size about that of the United States; compare various parts with the adjacent parts of our country, as Novia Scotia with Maine, Southern Ontario with New York, Manitoba and the Northwest with Dakota, British Columbia with Washington. Special topics for a day or two each might be The Klondike, the fur trade of the Northwest, Winnipeg as a trade-center (what it exports and imports and why it came to be a great city), a fishing trip to the Newfoundland Banks.

Mexico and Central America. Note location and direction from the United States; compare Mexico with Southwest U. S.; compare West Indies with Porto Rico; special topics of interest are a journey from San Antonio to Mexico city, what United States did for the health of Havana, Spain's colonization and government of Cuba, the raising of bananas, the Panama Canal.

SECOND MONTH.

South America. Its location as to the equator and the United States. Have pupils draw an outline map putting in the two mountain and three river systems. Several interesting lessons can be made of the following topics and thru them one can bring out the chief facts of this continent's geography; a journey down the Amazon river, a visit to a coffee plantation, how rubber is produced, a stock farm in the Pampas, a visit to the diamond mines, South American Indians compared with North American Indians, Quito.

THIRD MONTH.

Europe. Note location; size (about the same as United States); population (about four times that of U. S.); the climate as affected by ocean, ocean current, and winds; the forests, steppes ,etc.; the homes of the people we know best; a dozen of the chief cities.

British Isles. After noting its location and size, spend a day or so each on a trip thru the Highlands of Scotland; comparing western Britain with its coal, iron, wool, and manufacturing with Pennsylvania; Ireland with its agriculture and the manufacturing that grow out of it; Ireland's struggle for independence; a journey around the islands touching at the chief seaports and learning what is shipped out or in at them. Notice especially what we send there and what we get from them.

FOURTH MONTH.

Central and Western Europe. Spend a few minutes each day on the map-study of the countries and a few of their most important cities. The main study however is on such topics as grape-culture in France, silk-culture, production of beet sugar in Germany, Paris as a center of art and fashions, the German's service in the army. A trip up the Rhine river, iron-manufacturing in western Germany, Holland's struggle with the sea, a voyage around the Baltic, characteristics of the Dutch, Germans and French.

FIFTH MONTH.

SOUTH EUROPE AND RUSSIA

Compare Russia with United States and Europe in size and poulation. Compare its climate with that of Western Europe; compare the plain of the Volga with the Mississippi valley; call attention to the lack of education, the few manufacturers, the little commerce, the general backward condition.

One country—Italy or Spain—studied as a type of South European countries and conditions. Note the general lack of education, the few manufacturers, the lines of agriculture followed, the small commerce. If Italy is chosen some time should be given to the history of Rome, to an imaginary trip thru Italy passing thru its art centers, the tunnels thru the Alps, production of olive oil, etc. If Spain is chosen a lesson each could be given to Spain's exploration of America, to Spain's struggle to expel the Moors, the Spanish-American war, in addition to the text studies of the country.

Two days each on the Austro-Hungarian and Turkish Empires.

SIXTH MONTH.

Asia. Begin with a day on the map, noting the location of the continent as a whole, the hot and cold regions, the deserts, the principal countries in Asia and also Japan, the Philippines, and the East Indies.

Siberia, its tundras, its mines, its convict camps.

China. Its resources, its dense population, their conservation and industry, the raising of tea, the making of silks, the Boxer troubles, the meaning of the "Open Door," the recent changes and troubles in China.

Japan. Locate; compare with the British Isle in size and poulation; the rapid progress Japan has made in the past few years; her wars with China and Russia; her chief products.

SEVENTH MONTH.

Western Asia, the desert,—take an imaginary caravan journey and notice what is carried and where to, spend a day in an account of the Arab life and migrations. Note the contest among European nations for the control of Western Asia.

India. Notice the location and its dense population. Interesting lessons can be given on the Sepoy rebellion, India's religion and sacred cities, the forests and their animals, the heavy ranfall, the making of opium, routes to Britain and what is carried each way.

Farther India, the climate, the people, the tin mines, Singapore, the Malay pirates.

East Indies, location, principal islands and the European nations owing them, what is gotten from them. Special topics of interest are the natives and their life and customs, the work of the missionaires, what U. S. done for the Philipines, the typhoons.

EIGHTH MONTH.

Africa, its location as to the equator, and Europe and United States. Notice the desert and watered regions and the reasons why.

British Afirca—parts included, the Nile valley and its inundations, the Suez canal; South Africa, the Boers and their struggle with England, chief products now.

Congo Basin, compare with the Selvas, the Arabs and their trade and cruelties.

German Africa includes what, produces what.

Sahara, its oases, its palms, its caravans, and what they carry.

Other lessons can be given, on the natives and their life, Livingstone's journey, Roosevelt's hunting trip, the animals of Africa.

NINTH MONTH.

Australia. Location and direction from the other continents; size compared with Europe, North America or United States. Special topics are the life of the Bushman, sheep-raising in Australia, the peculiar animals of Austrlia, her trade with England—route, and goods exchanged.

New Zealand. Volcanic islands, with geysers; note products and compare with Australia.

SIXTH YEAR.

The pupil now begins the use of the larger book. The first three months of the year as well as the earlier pages of the geography are devoted to giving the pupil a general notion of the physical and other causes lying back of the facts he has learned and is now to investigate further. The last thing the pupil should be expected to do however is to learn a lot of abstract principles and outlines of physical geography with the idea that he is to learn to apply them to concrete facts later. Rather let all this physical geography be taught thru observation, pictures, sketches on the board, use of maps, innumerable incidents and illustrations. and thru these things be made as concrete as possible. Not all the illustrations need be given by the teacher; she can often refer the pupils to pages in their own text or other books at hand where illustrations of the principles under investigation can be found. Then in later months or grades, where further illustrations arise, she should be continually referring back to these earlier pages and month's work; thus will causes and effects, principles and their illustrations, become gradually associated in the pupil's mind.

About one-third of the time should be given to nature study—a day or two at a time and occasionally three days or a week.

FIRST MONTH.

Parts of a sphere,—volume, surface, circumference, diameter, radius,—and the application of these lines on the earth's surface in circles—meridians, degrees of latitude and longitude. The practical use of these lines, etc.

Divisions of land and water with constant reference to the globe and maps. Pupils should be able to find on the globe or map any continent or ocean, the latitude of each continent should be hunted up by the pupils, and that of our own continent and country should be memorized); three or four of the larger islands; the Mediterranean, Gulf of Mexico, Great Lakes.

Make some study of land formation, and find on the maps, slopes as determined by mountains and shown by rivers, divides as found by separating the St. Lawrence system from the Mississippi system.

SECOND MONTH.

MOTIONS OF THE EARTH

Around the sun. Show by carrying the globe around some object representing the sun how the seasons are caused, then take up several practical questions, as Why is it warmer in summer than in winter? Why do vertical rays of the sun heat a given area more than slant rays do? Is it warmer the farther south one goes?

Rotation on its axis. Its effect in day and night. Why are days longer in summer than in winter?

Give a day or two to the great wind systems with the globe, wall-maps and text maps constantly before the children.

Erosion. Water from rain and snow runs off the surface of the ground, evaporates, or sinks into the ground. Work of underground water; springs. Work of rivers; valleys, origin and growth of valleys; waterfalls, deposits, alluvial plains, deltas. Final results of erosion on the original land area.

THIRD MONTH.

Rainfall and weather. With a map before the pupils show the relation of winds and mountains to rainfall; notice a half dozen typical regions, like the Amazon valley, the Great Basin, East India, the Steppes of Russia, the Puget Sound region.

Ocean Currents. Find on a map the principal currents that affect man, and refer pupils to pages in the geographies where they can find something about the effects of the Gulf Stream, Japan Stream, Greenland Current, and find on the isothermal map the results on all these currents.

Distribution of plants and animals. Spend a day each in the study of the Congo Basin or Amazon valley, southern United States, the great forest belt along the northern boundary of the United States, Australia, and perhaps other typical regions, noticing especially the plants and animals of interest to man. Go to the Carpenter books, Round the World series, books of travel, etc., for material to make these topics live and interesting.

Spend a day or two studying the races of men; have various pupils tell stories from Seven Little Sisters, Starr's Strange Peoples, or the various geographical readers.

FOURTH MONTH.

North America: Outline study.

1. Location: 1. General (with reference to other land divisions.) 2. Exact (with reference to Latitude and Longitude). 3. (Outline maps.)

2. Area: Relative (compared with Europe, Asia, North Dakota.) Absolute (square miles).

3. Physical Features. 1. Boundary conditions. 2. Elevations. 3. River systems. 4. Valleys. 5. Plains. 6. Lakes. 7. Deposits.

4. Climate: Influenced by (a) Latiude, (b) Altitude, (c) Topography, (d) Water Bodies, (e) Winds.

5. Products: animal, vegetable, mineral.

6. Inhabitants.

7. Political Divisions.

8. Governments.

United States.

1. Location: General, Exact.

2. Area: Relative. Absolute.

3. Physical Features: boundary, conditions, coast line, elevations, drainage.

4. Climate: heat belts, rainfall, winds.

5. Products: natural, manufactured.

6. Inhabitants.

7. Chief Industries: name and study. Why successful. Transportation.

8. Important Cities: for what noted. Why located as they are.

9. Points of Interest: historical, scenic.

Teach Standard Time: require map. Six leading lines of railroads. Locate canals and study importance. Use pictures, clippings from papers, magazines, books of travel to supplement the work.

Reference: Carpenter's "North America" and other reference books.

FIFTH MONTH.

New England States.

Location, latitude and what part they are of the United States; area as compared with the United Staes and with our state; surface, drainage, and soil; climate compared with our own; chief industries and how these came to be the leading ones; chief cities noted with maps in hand; other points of interest, historical, or scenic.

Suggested Type Studies: Boston studied from a standpoint of a historical center. Bunker Hill Monument, Lexington, Concord, Minute Men, Old South Church, Faneuil Hall, Harvard College, The Common, Plymouth.

2. Merrimac River. A type in which water power is utilized. Cotton mill. The manufacture of cotton.

3. The White Mountains. Mount Washington, a type of mountain.

4. Other studies. Granite quarries of Massachusetts. Marble quarries of Vermont. Making maple sugar.

SIXTH MONTH.

Middle Atlantic Section. Study on the same general plan as was suggested for the New England section, with any modifications you think needed to fit this section.

Suggested Type Studies: 1. The Great Lakes, Niagara Falls. Description. Utilization of water power. Welland canal. Buffalo and its warehouses. Erie Canal.

2. The Hudson River. Scenic, historic and commercial value. The Catskill and Adirondack Mountains. Summer resorts. New York City, great seaport and foreign commerce. Central Park. Brooklyn Bridge. Statue of Liberty. Docks.

3. The Appalachian Mountain System; anthracite coal, iron. Pittsburg. The blast furnace, steel production, shipbuilding at Philadelphia. Oil wells, gas wells.

4. Washington. The capital of the United States. The Capitol. The Treasury Building. The State, War and Navy Buildings. The Smithsonian Institute. The Congressional Library. The National Museum. The White House. The Bureau of Printing and Engraving. Historic places near Washington, namely, Alexandria, Mount Vernon, Arlington National Cemetery.

5. Baltimore. The oyster fisheries of Chesapeake Bay.

SEVENTH MONTH.

North Central Section. Study with an outline you make somewhat similar to that for the New England States.

Suggested Type Studies: 1. Excursion on the upper Mississippi River from St. Louis to St. Paul. Minneapolis, a center for the manufacture of flour. The wheat fields of the northwest.

2. Pineries and Lumbering in Northern Michigan, Wisconsin and Minnesota. Lake Superior and the Copper Mines. The iron mines of Michigan and Minnesota. Transportation of ore.

3. The hardwood forests of Indiana and the Ohio Valley.

4. The Mammoth Cave.

5. The Missouri River and the country thru which it flows. Compared with the Ohio River.

6. Map Review. Chief Cities, and why they came to be where they are.

EIGHTH MONTH.

Southern States. Study on the same general plan as the New England States and then make a study of some of the following types or others you can find material for in your library.

1. The Pineries of North Carolina. Products: Tar, pitch and turpentine, resin and lumber.

2. Rice in South Carolina. Peanuts. Sweet Potatoes.

3. Florida. Rock Formation. Coral. Everglades. Winter resort. Oranges. Sponges

4 Markets for cotton and its cultivation.

5. Tobacco culture in Kentucky.

6. A trip on the Mississippi River from Cairo to the Delta. Make a special study of the jetties.

7. Texas and cattle raising.

NINTH MONTH.

Western Section. Study on the same general plan as the New England section. Compare the Plateau and Pacific States as to rainfall and occupations; note the effect of the Japan Stream; call attention to the few good harbors on the Pacific and what this means for the development of cities where there are harbors. What effect will the Panama Canal have on these cities and the Pacific States?

SUGGESTED TYPE STUDIES

Natural features, as Pike's Peak, Yellowstone Park, Colorado River and the Grand Canyon, the redwood forests of California and Washington.

Occupations of the section, as Gold Mining, story of the discovery, different methods of mining gold; ranch life; irrigation and alfalfa and fruit; fruit raising; salmon fishing and canning.

Cities, as San Francisco, Los Angeles, Denver, and the Pudget Sound cities.

SEVENTH YEAR.

FIRST MONTH.

Review the United States, not by sections as it was studied before, but by making a study of the great productive regions, as the wheat, corn, cotton, hardwood lumber, pine lumber, pork, beef, etc., areas of the United States; e. g., the wheat area may be studied from the following outline:

I. *Location*: (a) Zone, (b) States included.

II. *Climatic Conditions*: (a) Temperature. (b) Rainfall. (e) Winds.

III. *Area*: (a) Relative. (b) Rank of States.

IV. *Soils*: (a) Kinds. (b) Origin. (c) Fertility.

V. *Population*: (a) Number. (b) Occupation.

VI. *The Growth of Wheat*: (a) Preparation of the soil. (b) When and how seeded. (c) When and how harvested. (d) When and how threshed. (e) Yield.

VII. *The Marketing of Wheat*: (a) When sold and to whom. (b) Where converted into flour. Why?

VIII. *The Making of Flour*: (a) The Flour Mill. Where? How operated. (b) The disposition of flour.

IX. The general influence of the wheat crop on the people of the area.

Note: A similar outline may be made by the teacher for the study of other areas.

SECOND AND THIRD MONTH.

NORTH DAKOTA.

Give half of the time of these two months to agriculture and stock-raising (See Course of Study in agriculture for suggestions). In the geography work study—

Location and size .

Surface, drainage and rivers, noticing the "Valley," central part, and the "Slope."

Climate especially as to rainfall.

Wheat-raising, noting the changing methods, irrigation and dry farming, "Big farms."

Corn raising and flax raising.

Stock raising and dairying, contrasting the Valley and western methods.

Coal, area, present development.

Other occupations and products.

Railroads and commerce.

The commercial centers, both leading centers of the state and those of special interest to your locality.

The location of the state educational institutions and the purpose of each.

After the detailed study of the state the pupil should be able to draw an outline map of state from memory and place in it the principal rivers and railroads, principal cities, and the cities having state institutions. Maps can be secured from the Department of Agriculture and Labor which give the railroads and new towns right up to date of publication and on the back of these maps is a page of statistics and other data from which can be secured answers to many of the questions suggested by this outline. From the same source can be gotten the North Dakota Year Book and Magazine which furnish facts regarding recent developments; the Institute Annual and bulletins from the Agricultural College are valuable for geography as well as agriculture.

FOURTH MONTH.

Alaska. How secured by us, position, surface, climate, occupations, and products, gold, salmon, seals, Japan Stream and its effects.

Porto Rico, the Philippines, and Hawaii. Their positions, surfaces, and climate; their peoples; their occupations and products, compared with each other and with the United States; how we secured them; how they are governed; what they sell to us and what they buy from us.

FIFTH MONTH.

Canada, Newfoundland, Greenland: Study in the same topical manner as the United States.

Compare Canada with the United States. Study the Provinces of Canada.

Suggested Type Studies:

1. St. Lawrence River. Thousand Islands Quebec.
2. Cod fishing off Newfoundland.
3. Canadian people and rural life.
4. Canadian Northwest.

SIXTH MONTH.

Mexico, Cetnral America, West Indies: Study in the same topical manner as the United States.

Suggested Type Studies: 1. City of Mexico. The native people of these countries. Occupation. Seaports. 2. Volcanoes.

SEVENTH MONTH

South America: Use the same topics that are given for North America. (Fourth month, sixth year. See type studies suggested for fifth grade and add such others as your library permits.

EIGHTH MONTH.

South America (continued): Study the following topics: 1. Panama Canal. 2. Cause of wet and dry season. 3. Cattle raising and agriculture in South America. Study the valleys of the Orinoco, Amazon and LaPlata Rivers. 4. Leading commercial cities of Soulh America. 5. Countries of South America. Be sure the pupil has a thoro knowledge of these two continents.

Compare North and South America as to size, coast line, river systems, climate, peoples, industries and governments. Require outline map with the four principal rivers, the mountains, and eight to twelve principal cities. Have pupils go to their histories and learn what we have had to do with South America.

NINTH MONTH.

Africa. Studied rapidly from same general outline as North America.

Egypt. The Nile River; its inundation. Cairo and the Pyramids; Alexandria and its commerce. Joseph and his people.

The Shara desert.

Suez Canal: Description; owned by England; difficulty of construction value to commerce; the Red Sea, Aden.

South Africa: England's relation to it; the native people; the Boers and the Transvaal war; the Diamond mines of Kimberly; the lake region of central Africa; the large animals of Africa.

With the map before the class trace out carefully the parts of Africa claimed by the different powers of Europe.

Compare the Congo Basin and the Amazon; the negroes of Africa and the Indians of South America; Suez and Panama canals.

EIGHTH YEAR.

FIRST MONTH.

A General Review of the Physical and Astronomical Geography: Proofs of the earth's rotundity. The inclination of the earth's axis. Zones, latitude, longitude, surveying. Seasons. Motions of the earth. The positions of the earth. The sun, moon, stars. What effects the climate of a place on the earth's surface?

Winds. What are they? Causes? Kinds? Use? Ocean currents. Cause. Changes going on affecting the earth.

Use reference books.

SECOND MONTH.

Europe: Study as a whole in the same topical manner as North America. Relation to Eurasia.

British Isles: Study in the same topical manner as the United States.

Suggested Type Studies for the British Isles:

1. Trip by steamer from New York to Liverpool. Preparations for journey. Boat lines. Plan of boat. Expense of trip. Time taken in crossing the ocean. Incidents of a trip. Icebergs. Life in the ocean.

2. Liverpool. Cause of growth. Commerce. The Mersey River. Tides. Wet and dry docks. Manchester ship canal. Cotton.

3. Leeds, Birmingham, Sheffield. Coal and iron. Great manufacturing centers.

4. London. A great metropolis. The Thames River. St. Paul's Cathedral. Westminster Abbey. The Houses of Parliament. The Tower.

5. Scotland. The people. Compare with the English. Edinburg. Glasgow. Shipbuilding. The Clyde River. The Highlands and Lowlands.

6. Ireland. The people. Occupations. English Rule. Peat bogs. Belfast and Dublin. Linen. Queenstown. Ocean traffic. Submarine cables.

7. Wales. People. Occupations.

THIRD MONTH.

France, Holland, Germany, Norway, Sweden and Switzerland: Study in the same topical manner as the British Isles.

Suggested Type Studies: 1. France, the city of art. Lyons and the silk industry. Bordeau and grape culture. Characteristics of the French people.

2. Holland. Dutch windmills. Canals. Dykes. Reclaimed land. The industry of the people. Amsterdam. Diamond cutting. Compare Holland and Belguim.

3. Germany. The Rhine River. Scenery. History. Cities. The German army. Berlin, the Kaiser City. German schools and universities. Dresden and chinaware. Hamburg. Sugar beet industry. The Baltic and the North Sea Canal.

4. Norway and Sweden. The Land of the Midnight Sun. Effect of the Gulf Stream upon climate. Fishing. Cod and Herring. Forests. Iron ore. Agricultural products of Sweden. Manners and customs.

5. Switzerland. The Alps. Glaciers. Scenery. The Swiss peasant life.

FOURTH MONTH.

Russia, Spain, Portugal, Italy and the Remaining Countries of Europe: Study in the same topical manner as the British Isles.

Suggested Type Studies: 1. Russia. The building of St. Petersburg by Peter the Great. A Russian village. The Siberian railroad. Russia's agricultural resources. The government of Russia in contrast with ours. Moscow. *Nizhnij Novgorod.*

2. The Danube River. A trip down the Danube River.

3. The Mediterranean Sea. Strait and Rock of Gibraltar. The world's great forts. The peninsulas of southern Europe. The islands of the Mediterranean. Italy and Italians. Rome. Venice. Naples. Greece and her past glory. Ruins of Athens. The Valley of the Po. Mount Vesuvius. Volcanoes. Turkey and the Turks. The Black Sea. Constantinople.

4. Map study of Europe as a whole.

Note: In the study of the continents, make constant use of "Carpenter's Geographical Readers" and other reference books given in the list at the end of the course of study in Geography.

FIFTH MONTH.

Asia: Study in the same topical manner at North America. Relation to Eurasia.

SIXTH MONTH.

Asia: In this month give a more detailed study to all the countries of Asia. Some of the topics to be studied:

1. India. The people. English rule. The sacred river—Ganges. The religious beliefs of the people. Benares. Calcutta. Productions. Rice. Cotton. Coffee. Opium. Wheat. Jute. The Himalayas. Rivers of Southern Asia. Animals.

2. China. The Mongolian race. Races of mankind. The peculiarities of the people. Tea culture. Opium in China. Food products The Chinese wall. The Grand Canal. The great undeveloped coal fields of China. Thibet.

3. Japan. The people. The Yankees of the Orient. Account of its rapid stride to the front. Its position and relations to Asia. The war with Russia, etc.

SEVENTH MONTH.

Australia: Study in the same topical manner as North America as far as practicable. Suggested type studies:

1. Ranch life in Australia. Sheep. Wool. Shipment of frozen meat to Europe. The rabbit nuisance. The lack of rain in Western Australia. The cause. The study of the trade winds. The great coral reef. Gold mining. Wheat. The vine. Queer animals of Austrailia. The native people. Early settlers. Government. Political divisions. Chief cities.

New Zealand, Tasmania: Study in the same topical manner. Discuss.

The Philippines: Study in the same topical manner. Discuss—

1. The manner in which the United States obtained possession of them.
2. The character of the native people.
3. The problem before the United States in dealing with the people of these islands.

Samoan Islands. Hawaii, New Guinea, Borneo, Sumatra, Java.

EIGHTH MONTH.

A review of world geography: British Empire, territories included, principal products, ports, and the trade routes to and from each.

Likewise the Dutch Possessions, then the French, German, and Russia territories.

Other important groups, as the Scandinavian countries, the Countries of South Europe the South American Republics, China and Japan.

Note the present migration of Germans and Italians to South America, of Slavs, Italians, and Greeks to the United States, of Japanese to Hawaii and Korea; German and British rivalry to our world trade, etc.

NINTH MONTH.

A review of the geography of the United States and its possessions.

The occupations and products of the various sections.

The development going on in the West and South.

The present condition of American resources and the problem of their conservation.

The leading railroad lines and the steamship routes that connect us to the rest of the world; the Panama Canal and its value.

Our colonies, their peoples and their products; the development going on there.

Suggestions as to Sources of Material in Geography

Home Geography. Besides books published under the name of Home Geography by almost every standard school book publishing company, the following will be found helpful: Frye's Brooks and Brook Basins, 50c, Ginn & Co.; Shaler's First Book in Geology, 45c, Heath & Co.; Payne's Geographical Nature Study, 25c, American Book Co. To those who are beginning the use of a sand-table, Frye's Child and Nature, 75c, Ginn, will be valuable.

Mathematical Geography. Johnson's Mathematical Geography, $1.00, American Book Co., and Jackson's The Earth in Space, 40c, Heath & Co., explain fully the necessary phases of the earth's relations as a planet. These topics are well treated too in a book which includes them and physical and climate geography, Salisbury, Tower, and Barrows' Elements of Geography, Houghton, Miffin & Co.

In presenting the type-studies suggested in the Course, in furnishing details to make more clear, more vivid, and more interesting the every day work of geography, and for outside reading or special reports, the teacher and class should go to the various series of geographical readers: Winslow Readers, Earth and its People, United States, Our American Neighbors, Europe, Distant Countries, 50c each, Heath & Co.; Carpenter Series, North America, South America, Asia, Africa, Australia, 60c each, and Europe, 70c, American Book Co.; Youth's Companion Series, made up of articles appearing in that paper at various times, and now collected in several books at 25c each, The Wide World, Strange Lands near Home, Northern Europe, Under Skies, Toward the Rising Sun, by Ginn & Co.; Our Country East, Our Country West, The Great Lake Country, On the Gulf, On the Plains, by Perry Mason, Boston; McMurry's Type Studies, 50c and Larger Types, 75c, Macmillan Co.; World and its People Series, especially Our American Neighbors (60c), Modern Europe (60), Views in Africa (65), Australia and Islands of the Sea (68), Silver, Burdett & Co.; Fairbanks' Western United States, 65c, Heath & Co.

Another series somewhat like the above, but with Books I and II adapted to primary grades and Books III (48c), IV (54c), and V (60) adapted to intermediate grades is the Round the World Series, Silver Burdett.

What may be called a "cross section of these same topics taken the other way" is gotten in the various series of Industrial Readers: Chamberlain's How We Are Fed, How We are Clothed, How We are Sheltered, How We Travel, 50c each, Macmillan Co.; Carpenter's How We Are Fed, How We Are Clothed, How We Are Sheltered, 60c each, American Book Co.; Carpenter's Foods and Their Uses, 60c, Scribner's Sons.

For those who desire one extended reference work on geography, probably the best is Mills' International Geography, $3.50, Appleton & Co., a book written by several eminent geographers, each a specialist in the topic he presents. Patton's Natural Resources of the United States, $3.00, is a standard work on that topic.

Nature Study

The work given in this syllabus is not meant to be comprehensive, but merely suggestive. It is not expected that the teacher must treat all of the topics mentioned, nor is she expected to confine herself to this course of study. Indeed, in any district the work undertaken must depend upon the materials at hand. The topics suggested are such as can be studied in the larger number of schools in North Dakotta, and yet in the individual districts some of the contemplated material will be lacking so that the topic must be omitted. On the other hand, each individual district will have plants, animals, or other material that is not mentioned in the syllabus, but is quite as valuable for our purpose and should be made use of, by all means.

Work is mapped out for each of the four seasons, including summer, because summer is really the best time of all the year for nature study. Schools in session then will also be able to do much of the work suggested for spring or autumn.

Teachers should keep constantly in mind the primary objects in nature study, which are:

1. To train and cultivate the interest and enthusiasm of the child in natural objects; to develop an intelligent appreciation of the things in nature.
2. To stimulate and train the child in breadth and accuracy of observation and correct interpretation of his environment.
3. To help the child to gather with his own senses full and accurate knowledge of his material environment: (1) for the sake of this knowledge itself; and (2) because of its value as a concrete basis for the interpretation and correlation of his other studies.

Children should be encouraged to notice the material objects and phenomena which may be observed about their home and on the way to and from school, also to bring to the school materials for study. Observation and drawing with oral and writen description should be properly combined in the various lessons. Whenever the subject admits, the child should be led to continue the studies and observations of the same throughout the year.

The teacher should be supplied with one or more good books on nature study to guide and suggest in the selection of materials and methods of presentation. At the present time the book entitled "Nature Study," by Frederick L. Holtz, seems particularly well suited for use in North Dakota. It also gives an excellent list of other books, periodicals and government bulletins, many of which should be at hand to aid the teacher and pupil. A special feature is a very extensive outline of a graded course in Nature Study, much more elaborate than the one here printed. Other reference books are suggested elsewhere.

SCHOOL GARDENS, ETC.

The window garden, school garden, and home garden are valuable adjuncts of nature study work. Eeach school should have its window boxes in which all manner of seeds, bulbs, and cuttings or slips can be started and plants raised.

If there is a school garden many of these plants, started early in the spring, may be transplanted later. If there is no school garden much can be learned through window gardening.

When the school is in session during a good portion of the growing season it should have a garden, the ground of course, being previously properly prepared and proteciton provided. If the school closes on the approach of summer and does not reopen till September, or if there is no protection against stray cattle or against the North Dakota winds, then the school garden will yield nothing but disappointment. In rural communities it will, therefore, usually be better to induce the pupils to plant a garden at home and care for it. The idea here is to let the child do his own planning, do the weeding, hoeing, watering, etc., and make his own observations. The other pupils should be encouraged to undertake small experiments to establish the value of different methods of tillage, or demonstrate the relative value of different varieties of plants.

The most necessary, most feasible and most helpful thing to do upon our rural school grounds is to establish shelter belts, and then plant groups of trees and shrubs, arranged in an artistic manner, so that the whole will present an attractive picture and furnish material of great value for instruction. The habit and uses of various plants can be brought out and the child led to appreciate the value of such decorative planting in connection with the home. After these hedges and clumps of trees and shrubs are well established they will furnish excellent protection for plats of small annual plants whenever the school is in session long enough during the growing season to care for such a garden and get the benefit of it.

The experiments suggested for "Autumn, Spring or Summer" are very simple and should make the garden work much more interesting and educative. They may be performed at the time of year most appropriate. Leave enough time between the different experiments that each one may impress itself upon the minds of the children. They are taken from Goodrich's "The First Book of Farming," and from Atkinson's "First Studies of Plant Life." These two books are, therefore, needed for full directions. They give an excellent treatment of the subjects indicated in their titles. Of course, there are other books in which similar experiments are described, and any such will answer as well, provided the procedure is simple enough for the present purpose.

There is much work that may be classed as nature study, as agricultrue, or as geography. Do not call it nature study unless it is based upon observation by the children. The outline in geography will probably suggest additional work in the line of nature study.

LISTS OF TREES, SHRUBS, FLOWERS AND BIRDS.

These brief lists of plants and birds having most general distribution in the state and attracting most frequent notice may be of assistance to teachers and students of this subject. Needless to say that only a small fraction of our resources in this field can be mentioned here, there being over 775 species and varieties of native seed-bearing plants and over 340 species of birds catalogued for North Dakota. *Trees and Ornamental Shrubs* most commonly known in North Dakota. *Trees*: Cottonwood, Carolina poplar, box elder, white

elm, green ash, basswood, soft maple, golden willow, white willow, hackberry, balm of gilead, mountain ash, cut-leaf, birch. *Shrubs*: Lilac, snowball spirea (especially van Houten's), Tartarian honeysuckle, Russian olive, buckthorn, caragana or Siberian pea tree, dogwood, syringa, barberry, flowering currant.

Growing wild and having ornamental value: rose, silverberry, wolfberry, meadowsweet, black currant, plum, buffalo berry, hawthorn apple, Virginia creeper (the common woodbine). *Wild Flowers*: The following are some of the commonest wildflowers growing upon the prairies in nearly all parts of North Dakota. They are arranged approximately in order, beginning with the earliest and ending with those that bloom late in the fall: Pasque flower, hog's fennel, golden violet, Solomon's seal, meadow rue, puccoon, vetch, milk vetch, meadow parsnip, anemone (several species), silverweed, wild onion (an early species), ground plum, buttercup, prairie rocket, blue violet, beard-tongue, harebell, chickweed, wolfberry, gaillardia, alum root, locoweed, scarlet gaura, red lily, prairie mallow, wild rose, golden aster, false sunflower, milkweed, yellow, black-eyed Susan, purple cone-flower, long header cone-flower, blue lettuce, horse mint, hedge nettle, wild mint, water parsnip, water hemlock, prairie clover (white and red), five-finger (several species), thistle, evening primrose, avens, wild onins(a later species), silver-leaf psoralea, bedstraw, wild cucumber, lead, gum plant, sunflower, blazing star, aster (several species), goldenrod (several species.)

HELPFUL BOOKS.

From the wealth of Nature Study literature now available the following books are suggested. The list, of course, is not complete. There are other books equally helpful.

Holtz—Nature Study. Scribner's, $1.50.

Atkinson—First Studies of Plant Life. Ginn & Co., $ .65.

Goodrich—First Book of Farming. Doubleday, Page & Co., $1.00.

Hodge—Nature Study and Life. Ginn & Co., $1.50.

Chapman—Birds of Eastern North America. D. Appleton & Co., $3.00.

Chapman and Reed—Color Key of North American Birds.

Lange—How to Know the Wild Birds of Minnesota, etc. Northwestern School Supply Co., $ .25.

Comstock—Insect Life. D. Appleton & Co., $1.75.

Kern—Among Country Schools. Ginn & Co., $1.25.

Heinrich—The Window Flower Garden. Orange Judd & Co., $ .50.

Bullard—Moths and Butterflies. G. P. Putnam's Sons.

Weed—Life Histories of American Insects. Macmillan.

Keeler—Our Native Trees. Scribners, $2.00.

Keeler—Our Northern Shrubs. Scribners. $1.00.

Dana—How to Know the Wild Flowers. Scribners, $1.75.

Goff and Mayne—First Principles of Agriculture. Am. Bk. Co., $ .80.

Walker—Our Birds and Their Nestlings. Am. Bk. Co., $ .60.

Apgar—Birds of the United States. Am. Bk. Co., $2.00.

Reed—Bird Guide. Parts 1 and 2, each $ .75. Chas. K. Reed, Worcester, Mass.

Schmiker—The Study of Nature.

Jackman—Nature Study.
Hornaday—Natural History. Scribners.
Seton—Wild Animals I Have Known.
Long—Ways of the Woodfolk.
Weed—Birdlife.
Miller—The Brook Book.
Willard—Story of the Prairies.
Burroughs—Signs and Seasons.
Brown—The Plant Baby and Its Friends.
Morley—Seed Babies.
Beal—Seed Dispersal.
Bailey—Garden Making.
Dana—Plants and Their Children.
Pinchot—Primer of Forestry. U. S. Dept. Agr., Washington, D. C.
Morley—Insect Folk.

Apply to state educational institutions for literature and to the Department of Agriculture at Washington, D C., for lists of its publications and how to obtain them.

Some Annual Flowers easy to grow and most suitable for children's gardens at school or home: nasturtium, sweet pea, sweet alyssum, candytuft, verbena, petunia, zinnia, coreopsis, marigold, phlox, poppy, California poppy, portulaca, sunflower, morning glory, wild cucumber.

Bulbs. The unrivaled beauty of the flowers, and the fact that they can come when no other plants are in bloom make the culture of bulbs very popular. In our climate, however, the life of most of them is too precarious out of doors, and the beginner should plant all of them in pots of earth except the Chinese lily which is grown in a flat bottomed dish with a few small stones and plenty of water. This will bloom about Christmas, while the others come into blossom later. The following are very satisfactory: Chinese lily, tulip, hyacinth, crocus, frezia, daffodil, and poet's narcissus.

Birds. Following are among the commonest to be found in summer in nearly all parts of the state: English sparrow, meadowlark, robin, vesper sparrow, red-winged blackbird, cowbird, lark bunting, common kingbird, Arkansas kingbird, Baltimore oriole, nighthawk, killdeer, mourning dove, goldfinch, several species of swallows, house wren, flicker, red-headed woodpecker, grouse, prairie chicken, yellow warbler, catbird, rose-brested grossbeak, kingfisher, many species of sandpipers, ducks, geese, hawks and owls, gulls and terns.

FIRST, SECOND AND THIRD GRADES.

In these grades it should especially be remembered that the object of nature study (teaching) should be to interest the child in nature, and not to weary him with it. The observations should be of the simplest kind. They should be accurate, but not in detail. The plants and animals must be observed as wholes. Recognition and names will be about all that can be expected. Pupils should watch the animals to see what they eat, how they act at feeding time, how they

move, etc. The spirit of kindness to all animals should be cultivated. Pupils should be encouraged to plant seeds at home and at school, and then to care for the plants and watch their growth.

AUTUMN.

Flowering Plants. Recognition and names of sunflowers, aster, goldenrod, thistle, dandelion, nasturtium, sweet pea, pansy, phlox, blazing star, zinnia, petunia. Note color; have they fragrance?

Vegetables. Recognition and names of pumpkin, squash, onion, beets, turnip, lettuce, cabbage, cauliflower, carrot, tomato, celery.

Seeds. Recognition and names of seeds of several of the above vegetables and flowers. Milkweed pod with its seeds; their dispersal by wind.

Trees. Three or four trees as near the school house as possible. Learn their names; collect leaves, draw around them and mount them; collect fruit (seed) if it can be found, save and germinate next spring.

Birds. Meadowlark, robin, English sparrow, duck, goose, goldfinch, junco, flicker, and tame canary if one can be brought in a cage from some home. Observe the most common species each day, and note their final disappearance. What becomes of them?

Insects. Find large caterpillar like that of cecropia or polyphemus moth; keep properly and watch it spin its cocoon. Find caterpillar of Monarch butterfly on milkweed, and of the cabbage buterfly; observe changes to butterfly. Grasshopper. Cricket.

WINTER.

Trees. Christmas trees, if possible: green all winter, leaves remaining on the tree; notice needle-shaped leaves. Christmas trees are usually spruces; if other evergreens are found in the district notice what species they are. Are there any pines?

Domestic Animals. Study the cat and dog, horse and cow, sheep, pig, chickens,—a few of the most easily observed characteristics of each, their use to us and the care they should receive from us, the food they eat and the differences in their manner of taking and chewing food. Note their various ways of walking, running, jumping, and their antics at play.

Birds. English sparrow and any other birds that can be found in the winter as prairie chicken, horned lark, cross-bill, snowflake, snowy owl, tame pigeon. Recognition and name. Pupils should note these hardy winter birds. What food do they live upon?

Natural Phenomena. Observation of the weather;also of different forms of water,—as water, steam, rain, snow, ice.

SPRING.

Signs of Returning Spring. Warmer weather; disappearing snow; budding twigs; first meadowlark or robin; first spring flower.

Flowering Plants. Recognition and names of pasque flowers, violet, willow catkins, geranium, daffodil, false Solomon's seal, meadow rue, or others that are

common in the district. Note the conditions under which they grow in regard to high or low ground, light, etc.

Trees and Shrubs. Observe the trees chosen in the fall. Note bursting of bud; blossoming; forming of fruit, if possible. Germinate seeds,—perhaps those that matured last fall. Lilac, snowball, and other flowering shrubs to be found: recognition and name.

Birds. Recognition of robin, meadowlark, oriole, bluebird, flicker, red-headed woodpecker, crow, rose-breasted grossbeak, red-winged, kingbird, goldfinch.

Insects. Emergence of moth from cocoons. May be left out of doors until March, or, if gathered in the fall, they should be kept in a cool place.

SUMMER.

Flowering Plants. The recognition and name of at least a dozen or fifteen summer flowers, wild and cultivated. The lists given elsewhere will suggest many species that ought to be found in abundance at this season. Cultivate an appreciation for these flowers. Notice in what kind of situations each variety grows.

Birds. Learn the names of as many as possible, at least a dozen. It may be taken for granted that those now seen are summer residents, i. e., they nest in the state. Find some of their nests. Call children's attention to the affection which parent birds display toward nest, eggs, and young; appeal to thier finer instincts and teach them not to molest them.

Visit a poultry yard where hen and chickens may be seen. Observe parental care of old hen. Food. Note any interesting habits.

Insects. Keep a small collection of insects in simple insect cages, feed them and observe. Use any insects found in the neighborhood, as grasshoppers, crickets, butterflies, moths, potato beetles, etc. Learn something of the life history of some of these insects,—as the growth of a young wingless grasshopper to the adult; the transformation of a potato beetle's eggs into larvae, those into pupae (in the ground) and these into adult beetles.

AUTUMN, SPRING OR SUMMER.

EXPERIMENTS

No. 1. Prove that seeds require moisture for germination. Place seeds in soil, sand, or sawdust and keep them moist. Repeat without moisture. Use beans, peas, and corn.

No. 2. Prove that seeds require a certain amount of heat in order to germinate.—Plant seeds in a pot or small box and keep in a warm room. Repeat keeping them out of doors in cold weather.

No. 3. Prove that plants require water.—Let a plant wilt; revive with water.

No. 4. How to test seeds.—First Book of Farming, p. 76.

No. 5. To see how seedlings come up from the ground.—Studies of Plant Life, pp. 1-7.

No. 6. To see how seeds behave when germinating. Studies of Plant Life, pp 7-17.

LOWER INTERMEDIATE GRADES.

The work in home geography will furnish excellent additional topics in nature study for these grades. Observations should still be directed to the object as a whole, seeing accurately its essentials, but not the complete details. Some of those may be filled in later. The aim should be to get certain fundamental and general truths through observation and experience. The work should be spontaneous and suggested by the material obtainable, the teacher indicating the points for observation, but refraining from telling pupils what they may find out for themselves by looking, and avoiding definitions and the setting of patterns.

AUTUMN.

Flowering Plants. Recognition and names of a dozen or more fall flowers not already identified.

Recognition of fruits of the spring flowers studied.

Special study of Russian thistle, bean, pumpkin or cucumber, wild cucumber.

Trees. Recognition of three or four not observed in previous years, as cottonwood and other poplars, if found in the district, willow, (several varieties if possible) ash, elm.

Birds. Detailed study of hen. Care and feeding. Usefulness of the hen. Continue identification of birds. There will be many migrants passing south in September and October. How far do some of them go? How late do some of them remain with us.

Insects. House fly,—life history. Grasshoppers in breeding cage; save soil so that if there are eggs in it the young may hatch out later.

WINTER.

Trees. If evergreens can be found, identify them: as spruce, balsam, fir, red cedar or arbor vitae.

Buds and Branches. Notice the condition of trees and shrubs with reference to buds and branches. Compare position and arrangement of buds on different species and notice how this determines the mode of branching. Examine branches and note length of a season's growth for several years past. Try to identify those learned previously while in foliage. Bring in some willow or other twigs and try to wake them up by placing them in water.

Domestic Animals. Horses, cattle and chickens. The leading types as draft horses and roadsters, beef and dairy cattle, egg and meat breeds of chickens. Learn the names of a few breeds of each type. A few examples ought to be found in the district.

Insects. Open a few goldenrod galls or willow galls collected in the fall to find the larva. Keep others in large bottles, corked, till the winged insect appears.

Natural Phenomena... Learn to read the thermometer, and then make observations on the weather, noting the temperature, wind direction, cloudiness, snow, or sunshine. Perform experiments to show evaporation and condensation, observe frost on the window and discuss the cause.

SPRING

Flowering Plants. Continue identification of flowers not yet known to children. Look for relationship among flowers.

Seeds. Soak several kinds; look for the little plantlet and food; germinate the seeds. Prepare seed bed in garden and plant various seeds of flowers, garden or farm plants, and follow their growth. ..Encourage children to take an interest and a share in planting the garden at home.

Make simple germination tests by placing soil or sand in a shallow pan, cover with paper, moisten, put seeds on top of paper, then cover with inverted pan or plate; keep in warm place and watch developments.

Four-footed Animals. Study of gophers and ground squirrels; see how many species you can find.

Insects. Potato beetle, lady bug, cutworms, June beetles; usefulness or harmfulness; if harmful, how may they be controlled or exterminated? How did they pass the winter?

Birds. Continue identification of birds, making a bird calendar in which the first arrivals of each species are noted. Learn to know them by their song and cry, as well as by size and color.

Toads and Frogs. Gather a few frog's or toad's eggs from a pool, keep in a dish of water and watch their development into tadpoles, and their later growth into adult frogs or toads in the pools and streams.

SUMMER

Flowering Plants. The larger number of our flowers bloom in summer and should be identified this season. Learn the parts of a typical flowers; corolla (petals), calyx (sepals), stamens and pistils, and to recognize them on various species. Study the whole plant, briefly referring to the use of root, stem, and flower.

Insects. Recognition of dragon fly. Notice large eyes (compound) and beautiful colors. Damsel flies may also be found and compared with dragon flies. Collect and study such insects as beetles, flies, mosquitoes, buterflies, moths, crickets, grasshoppers.

Birds. Nesting habits of birds. Observe what materials are used by each species in the construction of its nest, and where the nest is located. Call attention to the importance of not disturbing the nests, eggs, or young, and encourage birds to build near the schoolhouse and the home. Observe the feeding habits, learning what the food consists of and how much of it the parents carry to the young. Observe the songs and call notes of birds and learn to identify them by ear as well as by sight. Cultivate an appreciation of bird music.

AUTUMN, SPRING AND SUMMER

To show some of the substances in plants.

First Book of Farming.

No. 1. To prove that plants contain starch, p. 63.

No 2. To prove that plants contain fats and oils, p. 64.

No. 3. To prove that plants contain a nitrogenous substance which is like albumen or the white or an egg, p. 64.

No. 4. To prove that plants are made partly of water, p. 65.

No. 5. To prove that plants contain woody fiber, p. 63.

No. 6. To prove that plants contain substances which may become ashes, p. 65. To study the germination of seeds. First Book of Farming.

No. 1. To prove that seeds need air for germination, p. 72.

No 2. To prove that seeds will not sprout in poorly ventilated soil, p. 73.

No. 3. To prove that the seed leaves which appear above ground (bean) and the seed which remains below (corn) furnish food for the young plant, p. 79.

No. 4. To show which seeds can be planted deepest, those which life their seed leaves or those which do not, p. 82.

UPPER INTERMEDIATE GRADES

In these grades continue the work along the lines previously followed, but broaden its scope and study more in detail. Greater effort should be made to form the habit of searching for the causes of phenomena, of observing accurately, and of forming conclusions and generalizations with all possible care. Economic features will now begin to be of more interest and should be given more prominence, a question of frequent recurrence being how the object under consideration directly or indirectly affects the welfare of man.

AUTUMN

Weeds. Recognize such as pigeon grass or foxtail, Russian thistle, wild mustard, tumbling mustard, Canada thistle, pepper-grass, wild oats, marsh elder, great ragweed or kinghead, lamb's quarters, fleabone, purslane, sow thistle, amaranth (several species, including red-root), squirrel-tail grass (or "foxtail.") Learn to identify them. Learn the characteristics of each weed which enable it to thrive with every man's hand against it. Learn the harm weeds do; best methods of extermination. Make a collection of weed seeds, put them into vials and label them; keep them for subsequent observations.

Seeds. Study the fruits of a variety of plants. The word "fruit" is here used in the botanical sense, meaning the ripened ovary, with seeds and other parts. Note that in such plants as the sunflower, dandeloin, thistle the fruit is seedlike and dry, and is probably regarded as simply a seed. Study the winged fruit of the boxelder and observe the seed in the hard shell at one end. Compare the pea pod and the mustard pod, and note the different structure. A milkweed pod and the fruit of the evening primrose will show very different and very interesting forms. Study also the structure of fleshy fruits, as the apple. Now study the development of the fruit from the pistil of the flower; a pea pod and a rose hip will do well for this purpose.

Birds. Study their migration to the south; make a calendar showing dates when the various species disappear. Bird lovers know which species leave us early in the season and which are the last to go. Continue the work of identification and try to distinguish the migrants observed from the summer residents.

Learn to recognize the marsh hawk, sparrow hawk, Swainson's hawk, burrowing owl, great horned owl. Study their characteristics as birds of prey. their habits of flight and their food. Which ones have economic value?

Insects. Water beetles; put them into aquaria, keep covered to prevent escape; notice how they get air.

Topography. Note any interesting physiographic features that may be found in the district such as boulders, sand dunes, bad lands, hills, buttes, valleys, coulees, streams, coal beds. Learn something of their origin. Note the effect of topographic features on the plant life.

WINTER

Domestic Animals. Horses, cattle, sheep, pigs, and poultry; types and various breeds; characteristics and special advantages of each, especially those of which examples are found in the district so that they may be seen.

Wild Animals (quadrupeds.) Make a list of all that are found in the vicinity, and study especially their life in winter, as far as possible.

Trees and Shrubs. Learn to identify all species of trees and shrubs in their winter condition, without their foliage. Note characteristic form, mode of branching, color of bark, etc. Study cross and longitudinal sections of stems or branches; annual rings and medullary rays; how to read the age of a tree from the annual rings.

Birds. Make a list of birds to be found at any time between the middle of November and the middle of March. There are not many in North Dakota. Do you find any winter visitors that have come to North Dakota from the far north? Do you find that many English sparrows, prairie chickens, etc., perish in winter? If so, then is severe cold or lack of food the principal cause?

Natural Phenomena.

a. The sun. Notice how low it is in winter, even when in the meridian. With a small protractor you can easily measure its altitude in degress.

b. The moon. Observe it for a few months; note the length of time that elapses between one moon and the next new moon; how it pases around the earth from west to east as the month advances; notice its phases and how they change.

c. The stars. Identify the North Star and the big dipper. Notice how the dipper swings around the North Star counter clock-wise as the night advances. Notice the movement of all the stars as the night advances. Try to identify a few other familiar groups, as Orion and the Pleides. Notice the milky way.

Heat and Cold. Make simple observational studies on the conduction of heat in iron and other substances. Note the principle of conduction involved in clothing, ice chests, fireless cookers, etc.

SPRING

Flowering Plants. Continue identification of all that are not yet known to the pupils. Look for relationship as indicated by structure of flower and fruit. Pupils should now learn a large portion of the wild flowers of their district.

Trees and Shrubs. Identify all that grow in the district. Learn their characteristics. Study best methods of transplanting. Let class transplant a tree, and observe others do it. Teach the proper way to prune trees. Observe Arbor Day and make an effort to have windbreaks, trees and shrubs planted about the school house. Instil a sentiment in favor of similar planting at home.

Birds. Continue identification, especially of such difficult families as sparrows, warblers and vireos. Make bird calendar in which you note date when each species arrives. Notice which become permanent residents, which are migrants and how long the latter remain. Continue the story of hawks and owls and their economic value.

Note protective laws and their purposes, and instil a desire to obey them.

Insects. Observe cutworms, caterpillers, the larvæ of mosquitoes and flies, and follow up former work upon development, studying the metamorphosis of insects common in the vicinity. Explain how flies carry filth and disease into the house, and emphasize the need of keeping the premises cleanly in order to control or exterminate this pest. Harm that insects do in leaf eating, juice sucking, leaf rolling, gall making.

SUMMER

Flowering Plants. As far as possible, learn names of all not hitherto identified. Observe their favorite habitant and their characteristics.

Grasses and Sedges. Their value to animals and man. Structure of a grass plant; notice that the grains belong to this family of plants. Study especially the corn and wheat plants, including their blossom. Distinguish sedges from grasses. Identify some of our commonest grasses, as brome grass, Kentucky blue grass, June grass, timothy, red top, false red-top, feather bunch grass, grama grass, cord grass, tall manna grass, wild rye, wild barley, bluestem, slender wheat grass, slough grass, porcupine grass.

Poisonous Plants. Make a list of those growing in the district and identify them. Learn how they act as poisons.

The following grow in various parts of the state and you ought to find several of them: Poison ivy, water hemlock, water parsnip, azure larkspur, loco weed, species of zygadenus (venenosus, and elegans), two lupines (the silvery and the slow.) In case of one or two of these the poisonous property has not been entirely established, but people should be taught to regard all of them with suspicion. Some of them poison cattle that eat them; others are even dangerous to handle.

Dissemination of Seeds. Nature has provided many plants with means for the dissemination of their seeds. Find examples of:- (a) Seeds that are easily transported by the wind; (b) tumble weeds that roll over the prairie and scatter their seeds broadcast; (c) seeds provided with hooks for holding fast to the hair or wool of animals; (d) seeds often eaten by birds and other animals to be dropped elsewhere uninjured; (e) seeds growing near running water upon which they float away.

AUTUMN, SPRING OR SUMMER

EXPERIMENTS

To show the work of roots. From the First Book of Farming.

No. 1. To prove that roots absorb water from the soil for plants, p. 9.

No. 2. To prove that roots store food for the future use of the plant, p. 9.

No. 3. To prove that some roots produce new plants, p. 10.

No. 4. To determine how water gets into the root hairs, p. 19.

No. 5. To prove that roots need air, p. 21

No. 6. To prove that water contains air and that boiling drives it out, p. 21.

To show the uses of stems. From the First Book of Farming.

No. 1. To show that the stem serves as a conductor of food and moisture between leaves and roots, p. 122.

No. 2. To show that a stem will produce new plants by buds, cuttings, layerings, p. 123.

No. 3. To prove that stems store food for the future use of the plant, p. 124.

To show the relation of soils to moisture. From the First Book of Farming.

No. 1. To prove that the power of the soil to take in rainfall depends upon its texture, or the size and compactness of its particels, p. 41.

No. 2. To prove that the power of soils to take moisture from below depends on their texture, p. 43.

No. 3. To show what kind of soils have the greatest power to hold the water which enters them, p. 44.

To study the growth of seedlings. From First Studies of Plant Life.

No. 1. To show where growth in length of root and stem takes place, pp. 24-26.

No. 2. To find direction of growth of root and stem, pp. 27-32.

Agriculture

SUGGESTIONS.

In order to follow this outline successfully several sources of information must be used:

1st: A text book.

The first three months of the seventh grade does not presume the use of a book at all. Subsequent to this any good text may be used, but not followed chapter by chapter. Follow the outline rather than the text book.

2nd: Reference Books.

Several of the very best agricultural books obtainable are mentioned at the close of the outlines for the different months. These should be secured, placed in the school library, and the appropriate chapters or paragraphs read as indicated. These books will be somewhat expensive, but as indicated elsewhere, if agriculture is to be taught successfully, there must be some outlay of money.

3rd: Bulletins.

Here is an excellent source of agricultural information for teachers. Every live teacher should cultivate the habit of collecting and filing bulletins. If occasionally the teacher fail to get the publication indicated because it is out of print or for any other reason, she should not fail to ask for others. These publications are nearly all free.

4th: Apparatus and Illustrative Material.

A few pieces of cheap usuable apparatus should be found in every school, the property of the district. This should include glass tubes, rubber hose, metal cans, a measuring vessel, weighing scales, alcohol lamp, ring stand, Babcock milk testing apparatus, etc.

The most effective illustrative material may be gathered from the fields, the gardens, and the roadsides within the district.

With these aids in the hands of the alert, conscientious teacher agriculture will soon become not only a most popular subject but one which will make for real development of the boys and girls.

The teacher should go over this outline in the summer or fall, making a complete list of all bulletins, reference books, apparatus, illustrative material, etc. Then ascertain how much of this is already on hand and ready for use and immediately begin to collect that which is missing.

Now when school opens everything is on hand and a successful course may be given without delay and inconveniences.

COURSE IN ELEMENTARY AGRICULTURE

7th Grade

SEPTEMBER

COLLECTION OF SPECIMENS: CEREALS

Purpose: To train powers of observations, and to learn that there is a fund of knowledge to be gathered from the fields and roadsides.

Collect from each farm in the district heads and shelled kernels of wheat, oats, barley, rye, millet, timothy, brome grass, clover, alfalfa, etc.

Classify: Wheat: (a) bearded, (b) bald, (c) smooth chaff, (d) velvety chaff. If bald and smooth chaff it is fife, if bald and velvety chaff, blue stem, if bearded with velvety chaff it is probably velvet chaff, and if it has a smooth chaff with long stiff beards, the whole head appearing rather large and coarse, it is a variety of durum or marconi. Now shell a head of each and note the very slight differences of size, shape and color in the fife and blue stem, the narrow crease of the velvet chaff and the large size, lighter and clearer color of the durum.

Oats: (a) white ,(b) black, (c) yelow or brown, (d) whorled (spikelets branching), (e) side spikelets on same side).

Millet: (a) foxtail, (b) broomcorn. The foxtail millets are those whose heads are like the head of pigeon grass, resembling the tail of a fox or squirrel. German, Siberian and Hungarian are the principal varieties included in this group. The broom corn millets are those with large branching heads like the head of broom corn, the plant from which brooms are made. Hog milet and Early Fortune millet are the principal varieties of this group. Why does a farmer ever grow millet instead of other grasses such as timothy or brome?

Clover: (a) white, (b) red, (c) Alsike.

White clover is usually found in lawns and about farm yards providing the moisture is sufficient. It does not grow large enough for hay but increases the value of pasture very much.

Red Clover is the kind most commonly grown. It usually produces two crops a year. The seed is usually found in the second crop.

Alsike is quite tall and slender with a pink and white blossom. This variety was brought from Sweden.

If any clovers can be found in blossom note that there are many flowers clustered into a head. Note also that each little flower is like a pea blossom.

OCTOBER

COLLECTION OF SPECIMENS: WEEDS.

Purpose: Same as September.

Collect and identify as many weeds as possible: Pigeon grass, mustard (several varieties), French weed or pennycress or stink weed, Russian thistle cockle (two varieties), Canada thistle, quack grass, Marsh elder, kinghead, dandeloin, pig weed (two or three varieties), wild oats, shepperd's purse, pepper grass, and others.

Perhaps all of these will not be found in any one locality, but rather a part of these and several others not mentioned in this list. Note the root, leaves, flowers, and seeds. Shell out the seeds and place them in small bottles, properly labeled. Preserve specimens of plants.

NOVEMBER.

COLLECTION OF SPECIMENS: CORN.

Purpose: Same as September and October.

Secure specimens of as many of the following varieties as possible: Golden Dent, Northwestern Dent, Minn. 13, Minn. King, Gehu, Mercer, Triumph, Longfellow and King Philip. Note color, size and shape of ears, whether ripe or immature. (Take this ear in the hand and with the ball of the thumb attempt to move the kernels back and forth. If they yield readily the corn is immature; if rigid and resisting the ear is ripe). Shell a few kernels. Note shape, size, depth of kernels and color of cob. Split a kernal lengthwise and note difference of white and yellow portions, in dent and flint varieties. Soak some kernels for 24 hours in warm water. Note how the crease or groove fills up. Germinate a few kernels between folds of damp cloth and watch the appearance and development of the little plant.

If typical ears of the various mentioned above cannot be secured in the neighborhood they may be bought at this season from any of the seed houses of the state. If the subject of agriculture is to be successfully taught, a small investment in apparatus and illustrative material is absolutely necessary and essential.

[Farmers Bulletin No. 409, Dept. of Agriculture, Washington, D. C.]

DECEMBER.

LEGUMES AND ROOT CROPS.

Purpose: To gain practical knowledge of certain crops too little grown in North Dakota; to learn the use of bulletins and other references, and to emphasize the imoprtance of note keeping.

Red clover, white clover, Alsike clover, alfalfa, peas, beans, also potatoes, mangles and turnips. High feeding value of the legums. Enrichment of the soil. Varieties of potatoes. Kind of soil required. Best methods of cultivation, storage, etc. Other root crops. Value in ration for live stock.

Re-examine specimens collected in September. Read chapter or chapters in text book, Farmers Bulletins, Department of Agriculture, Washington, D. C., Nos. 194, 215, 224, 240, 260, 16, 278, 441 and 121. Extension Bulletin No. 1, North Dakota Agricultural College, Fargo, N. D. Circulars of Information No. 16 Agricultural Experiment Station, Madison, Wis., Bulletin No. 118 Horticultural Division, University Farm, St. Paul, Minn. Bulletin No. 94, Dept, of Horticulture, Pullman, Wasnington.

Collect samples of potatoes, Carrots, mangles, turnips, etc. Write descriptions and uses and make drawings and water colors in note books.

JANUARY.

PLANT DISEASES AND INSECTS.

Purpose: To get a general knowledge of diseases and insect enemies of plants with a definite knowledge of a few of the worst, and to cultivate further the use of references.

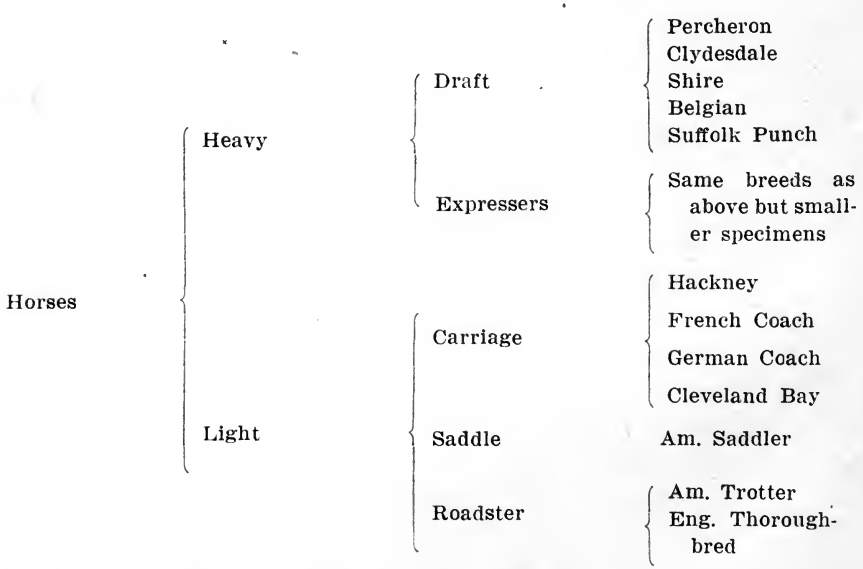
Smut in wheat and corn. Get samples if possible. Bulletin No. 122, Agricultural Experiment Station, University Farm, St. Paul, Minn.

Rust in wheat, oats and flax. Samples may be secured from any straw stack. Bulletin No. 109, Agricultural Experiment Station, S. Dak.

Insects: Cut worms, army worms, potato beetles, grasshoppers. Bulletins No. 28 and 123, Agricultural Experiment Station, University Farm, St. Paul, Minn.

FEBRUARY.

Purpose: To become as familiar as possible with horse types and breeds also to understand better the needs of these animals as to care and management.



Comfortable stables, amount and kind of feed, amount and kind of work, protection from cold and flies, examples of intelligence. Kindness to horses. Read Black Beauty. References: Types and Breeds of Farm Animals—Plumb—Published by Ginn & Co., Chicago; Fundamentals of Agriculture—Halligan—Published by D. C. Heath & Co., Chicago.

MARCH.

Purpose: Same as for February.

- Cattle
  - Beef
    - Shorthorn (Cruickshank Strain)
    - Hereford
    - Aberdeen Angus—Poll
    - Gallaway
    - West Highland
  - Dairy
    - Holstein Friesian
    - Ayrshire
    - Guernsey
    - Jersey
  - Dual purposes
    - Shorthorn (Bate Strain)
    - Polled Durham
    - Red Poll
    - Brown Swiss
    - Devon

History, utility, necessity of kindness, especially to dairy cows. Use pictures and read articles from Breeders' Gazette, Sanders Pub. Co., Chicago. References: Same as for February.

APRIL.

Purpose: Same as for February and March.

- Sheep
  - Fine Wooled
    - Spanish Merino
    - American Merino
    - Delane
    - Rambouillet
  - Medium Wooled
    - Southdown
    - Tunis
    - Dorset
    - Shropshire
    - Cheviott
    - Hampshire
    - Oxford
    - Suffolk
  - Long Wooled
    - Lincoln
    - Leicester
    - Cotswold

- Swine
  - Bacon
    - Yorkshire
    - Tamworth
    - Hampshire or Thin Rind
  - Lard
    - Berkshire
    - Chester White
    - Poland China
    - Duroc Jersey
- Poultry
  - Meat Breeds
    - Langshan
    - Cochin
    - Brahma
  - Egg Breeds
    - Leghorns
    - Minorca
    - Andulusian
    - Spanish
  - Gen. Purpose breeds
    - Rock
    - Rhode Island
    - Wyandotte
    - Orpington

History, classification, utility, incubation, brooding, care of young chicks, feeding, housing, etc. Reference: Bulletin No. 78, Agricultural Experiment Station, Fargo, N. Dak. Articles in farm and poultry journals.

MAY.

BIRDS.

Purpose: To become familiar with the great variety and importance of birds, in their relation to agriculture.

During the latter part of May and the early part of June Migrants are passing northward.

Watch birds afield and write original, detailed descriptions of at least four. Note size, color, markings, beak, method of locomotion; walking, hopping, running, flying in straight lines; zig zag or sailing, Habitat; wet places, highland, or trees; food; insects and grubs, weed seed, grain. Nesting habit, color and number of eggs (without disturbing), song.

JUNE.

CULTIVATION.

Purpose: To teach by text book and references as well as by experiment and observation the beneficial results of thorough cultivation.

A method of destroying weeds, prevents evaporation, increases water holding capacity, makes plant food available, causes tidy appearance of farm or garden.

Fill two large tin cans with equal amounts by weight of moist soil. Pack one firmly, cultivate the upper one-half inch of the second every few days. Place both in the south window or in the open sunshine. Allow no water to be added to either. Weigh at the end of two weeks and note results.

Farmers Bulletin Nos. 266, 262 and 329, U. S. Dept. of Agriculture, Washington, D. C. Make observations in different fields and report

Read Reasons for Cultivating the Soil Year Book of the U. S. Dept. of Agriculture 1895.

Write your senator or congressman asking for this copy, also ask for the last one off the press each year. They are free to North Dakota people.

EIGHTH GRADE

SEPTEMBER.

SOILS.

Purpose: To teach methods of determining the relative capacities of different soil types to produce crops.

Formation, types, plant food, use of soil maps. Collection and classification of samples.

Read chapters in text books, Soil Map of North Dakota published by D. E. Willard, St. Paul, Minn. Collect as great as variety of soils as possible, preserving in small bottles. These should include: surface, (1st 6 in.), sub surface, (2nd 6 in.) and subsoil (2nd or 3rd foot). They should be of gravel, sand, loam, clay, etc.

Test for water holding capacity and capillary power. Farmers' Bulletin No. 408, Office of Experiment Station, Washington, D. C. Reference: Soils—by Burkett, Published by Orange Judd Co., Chicago.

OCTOBER.

CONSERVATION.

Purpose: To teach the lesson of fairness to others, as well as some practical truths, the practice of which will give immediate financial return.

Removal of plant food by continuous cropping. Future generation robbed. What barnyard manure contains. Its use as a fertilizer. Commercial fertilizers. How to conserve fertility. How to conserve water in the soil. Waste in burning straw piles. Benefits of humus in the soil.

References: Soils—Burkett. Story of the Soil by Hopkins, published by the author, Cyril G. Hopkins, Urbana, Ill.

NOVEMBER.

FARM EQUIPMENT AND ECONOMY.

Purpose: To teach proper economy, system and civic pride. Costs of farm implements. Great waste in lack of housing.

Economy of good repair; of machines, buildings, fences, etc. Necessity of oil on bearing. Benefits of oil on polished surfaces when not in use. Satisfaction of having good implements in good repair, and in the proper places.

General plan of the farmstead. (This may be a neatly drawn plan of each pupil's home with beneficial changes and improvements or may be the result of the pupil's imagination in working out his ideal.)

Special plan of one principal building.

(Same Suggstion as Above.)

Circular No. 98 Ohio Experiment Station, Wooster, O.

Bulletin No. 167, Colo, Agr. Experiment Station, Ft. Collins, Colo.

Farmer's Bulletin No. 370, U.. S. Dept. of Agriculture, Washington, D. C.

DECEMBER.

CARE OF LIVE STOCK.

Purpose: To point out methods which make the keeping of live stock more profitable, also the lesson of kindness to animals.

Feeding, housing, ventilation, necessity of cleanliness, prevention of disease, proper fitting harness for horses, protection from flies, blanketing horses in winter, kind treatment of all animals. Make observations in the neighborhood and report findings.

References: Feeding and Management of Live Stock—Shaw—Published by The Webb Pub. Co., St. Paul, Minn.

JANUARY.

DAIRYING

Purpose: To create an interest in dairying by teaching a few of the fundamental principles.

Selection of dairy heard, variation in cows. Feed for dairy cows. Use of weighing scales. Use of Babcock milk tester. Composition of milk and butter. How to compute profit or loss on individual cows. Care of milk, cream and butter. Why milk sours. What causes bitter and other unpleasant tastes and odors in dairy products.

Year Book 1896—Care of Dairy Utensils.

Farmer's Bulletin No. 29, U. S. Dept. of Agriculture.

Halligan's Fundamentals of Agriculture

FEBRUARY

SEED GERMINATION

Purpose: To cultivate the power of observation, and to show some practical methods of tetsing seed grain for viability.

Test the germinating powers of many seeds such as wheat, oats, flax, corn, garden seeds, etc. Note the location of the embyro in the seed. Why the large starchy endosperm? (main portion of the seed). Watch the development of the young plant.

Types of germinators: (1) a pie tin half filled with clean sand, a piece of blotting paper over the sand, cut to fit the plate, the whole thoroughly saturated with water. Place the grains to be germinated on the blotting paper and cover with a tin plate. (2) Invert one pan inside another of large size. Pour water into the outer pan till the edges of the inner one are submerged. Lay a cloth

over the inner pan in such a way that the cloth will be in the water. Place the seeds to be germinated on this cloth, spread over another cloth and cover the whole system with a third pan. (3) Special corn germinator. Make a wooden box of one-half inch lumber 20 inches square and one-half inch deep—inside measurements. Drive small brads into the outside one-half inch from the top and two inches apart all the way around the box. Fill level full of sand. Next run a small cord around the brads and across the box in such a manner as to divide the sand surface into two squares. The upper left hand square will be No. 1, the next No. 2 and so on. Plant in each square a few kernels of corn from an ear similarly numbered. If all the kernels in any square germinate, then the ear bearing the corresponding number is suitable for planting, but if no kernels in a given square germinate the ear of corresponding number is fit only for feed.

Farmer's Bulletin No. 409, Dept. of Agriculture, Washington, D. C.

MARCH

HOME AND SCHOOL GROUNDS

Purpose: To become familiar with our common trees and shrubs, and to teach the fundamentals of landscape gardening.

Necessity of thorough ground preparation for tree planting. Kinds of trees and shurbs to plant and where to get them. Nurse trees and permanent ones. Care after planting. Arrangement. Hedges, flower beds, lawns. Plan a planting scheme for the school ground to be carried out in part in April and May.

Bulletin No. 56, North Dakota Agricultural Experiment Station.

APRIL

THE GARDEN

Purpose: To create an interest in gardening, to teach the principles of successful garden culture, and to promote the school garden idea.

Preparation of the soil. Fertilizers. Vegetables and fruits that may be grown with profit in North Dakota. How to start plants that have not time to mature when sown in the open ground. Cabbages, tomatoes, cauliflower, and celery. Care and cultivation. When and how to plant different vegetables, necessary of cultivation. How to grow strawberries, currants, gooseberries, raspberries and compass cherries. Winter protection. Food value of fruits and vegetables. Prepare by plowing or spreading a small plot for school garden purposes. In addition to vegetables and possibly a few flowers as sweet peas, some small plots of farm crops may be grown. A small plot of the varieties of clover, alfalfa, the millets, buckwheat, etc.

Bulletin No. 59, North Dakota Agricultural Experiment Station and Extension Bulletin No. 1, Agricultural College, Fargo, N. Dak.

MAY

FORESTRY AND ROADS

Purpose: General information on the subject.

The lack of a large forest area in North Dakota. The value of forests. Growing trees for profit, for protection, for ornament. Kinds of trees to plant.

Forest conditions. Effect upon weather conditions. Effect upon crop production. Kinds of roads, dust roads, stone roads, gravel roads, Macadam roads, Telford roads. The value of clay and gravel on sandy roadbeds. The value of sand and gravel on clay roadbeds. The value of good roads to a community.

Forestry of Minnesota—Popular Forestry—Green, Published by Webb Pub. Co., St. Paul.

Bulletin No. 295, Agricultural Experiment Station, Ithaca, N. Y., p 560.

JUNE

CONVENIENCE OF THE FARM HOME

Purpose: To show how the country home can be made more pleasant, sanitary, and comfortable. An adequate water supply from well or cistern under pressure. A sewage system; cesspool or septic tank .

The heating plant, stoves not a satisfactory method. Relative value of hot air, hot water and steam heating systems. Necessity of ventilation in living rooms, sleeping rooms, churches, school houses, etc.

Best Methods of Lighting—E. S. Keene's Mechanics of the Household, published by author, Agricultural College, Fargo, N. Dak.

History, Civics and Social Studies

It has sometimes seemed that history and civics are taught "simply because they are in the Course," but in our present over crowded curricula no subject deserves a place unless it has definite purposes to accomplish. In the words of the Committee of Seven, "Social studies should aim primarily at three things;—(1) sound character thru intimate contact with the best men and women of our own and other times, (2) sympathetic understanding of the chief phases of the present social order as seen in the light of past conditions, (3) such an interest in public affairs as will later express itself in patriotic citizenship." The report goes on to say: "The first is to be sought chiefly thru carefully selected biographical stories, the second thru cause and effect studies of historic events and movements in industry, politics, religion, etc., and the third thru the two kinds of material just named and the imitation in school of elections, trials, councils, legislatures, congresses, etc."

Much the same idea stated in other words would be—(1) history and civics divide with literature the claim of being the chief studies that contribute to moral training; (2) aside from their value in moral training history and civics get their chief claim to recognition in the preparation they can give for patriotic citizenship and for life as a member of the various social groups to which the pupil will later belong; (3) these subjects are valuable not alone in proportion to the *knowledge* they bring, but very largely in proportion to the *interest* they arouse in the pupil in the local and national social and civic life and the desire to see these conditions bettered.

One of the great problems in history is to secure this interest. The difficulty arises largely from the fact that history often is not taken up until the sixth or seventh grade and no foundation has been laid before that—the child has no "apperceptive mass" of historical materials to aid him in understanding or being interested in the subject. The natural remedy for this is the introduction of historical stories, poems, and anecdotes into the earlier work of the school. Another difficulty has been sometimes that these subjects have seemed to many pupils an unreal something away off in the past or away off in Bismarck or Washington; there has been no realization oftentimes that history deals with what some people actually did, why they did it, and how it resulted to them and to us; or that the material of civics is in actual operation all around us.

Again, the pupil's need of knowledge about the people and institutions around him is not wholly met by history and civics. The school director, the constable, the justice of the peace, are not the only functionaries he needs to think about; there are the blacksmith, the carpenter, the mail carrier, the merchant, the preacher, the teacher, etc., etc., and it is just as important to a

person's happiness and well being that he have thought about his relations to these as that he understand the governmental past and present. Back of all these illustrations of division of labor and the interdependence of society are the illustrations of them already somewhat familiar to the child in the home. A study of these relations in the home will then be at natural starting point, a basis for a wider understanding of them in society at large, at the same time that talking them over in school, thinking about them, may help the pupil to realize better his place in the home and his share in its life.

And it is just here in connection with these social studies that we find an excellent opportunity to teach practical morality. History as a teacher of morals has this criticism, that most of its moral situations are quite unusual as compared with the life of the pupil or citizen. The moral judgments they arouse are therefore largely inapplicable—at least he fails to see their application—to his everyday acts. But discussion about one's relations to members of the household, local officials, tradespople, the school, the society of the neighborhood, etc., etc., come right home to his everyday life, and set him to thinking, to forming ideals that have some hope of exercises before they are forgottn. In this Course are therefore suggested several lessons of this character.

HISTORY IN THE GRADES

The lower grade history consists of—

Stories told or read to the pupils and reproduced by them.
Celebration of the holidays.
Stories of Indian life and customs.
Simple social studies.

It is expected that the first three grades will recite together in history and that in the months in which they are studying physiology they will recite in history once a week and in the remainder of the year they will recite in history twice a week.

STORIES

To the pupil the work in history will not seem to be essentially different from that in reading or language; the teacher will realize tho that as the pupil is gaining in ability to remember and to retell, and to keep organized as he retells, the stories of The Ugly Duckling, Red Riding Hood, The Three Bears, and similar stories, he is at the same time gaining in power to remember, organize and retell historical stories. This becomes increasingly true as longer stories are told and reproduced, as The Golden Touch, The Miraculous Pitcher, The Golden Fleece, and too, these stories will sometimes be found to have numerous historical associations. The strictly American history stories used in these grades will be mainly those that are given in connection with the celebration of the holidays, tho it will occasionally happen that the teacher will find occasion to tell in the lower grades one of the biographical stories suggested for the intermediate grades. (While both "fairy tales" and history stories are used, the teacher should distinguish between them in presenting them.)

CELEBRATIONS.

SOURCE OF MATERIAL

The pamphlets of holiday material sent out by the Department of Public Instruction—

The stories, poems, etc., found in the school readers.

The holiday pages of the teachers' magazines.

The historical books in the library of the school.

PURPOSES OF THESE CELEBRATIONS

To make use of the interests and pleasures of the pupil's home life (Thanksgiving and Christmas) as a basis for school work.

To help the children begin to appreciate the struggle and sacrifice of others who have given us our nation and our institutions.

To arouse the pupil's interest in his country, his pride in its heroes, and his emulation of their virtues.

For the following suggestions for the celebration of the various holidays we are indebted to the Wisconsin Course of Study.

THANKSGIVING—THE STORY OF THE PILGRIMS

Tell of the voyage of the Mayflower, who these people were, why they came to America; show pictures of the Mayflower and then some modern vessels; tell of the exploration of Cape Cod, and the finding of a suitable place for the village; describe the dress, the homes, the people and their customs, and tell the story of Samoset, Squanto, Massasoit, Miles Standish, Governor Bradford, Alden and Priscilla; the story of the famine and sickness on the first winter, the first summer and the first Thanksgiving.

References—Moore, Pilgrims and Puritans; Longfellow, Courtship of Miles Standish; Colonial Children.

CHRISTMAS

Besides the material given in the magazines and available Sunday school papers, several stories of the earlier history of the Jewish people may be told, as Abraham's wanderings, Abraham and Isaac, Jacob and Esau, Joseph, Moses and the wanderings of the Israelites, Saul, and David. Tell of the Pastoral life of the people and some of their customs. Use Madonna pictures and any other pitcures available which will make the story either clearer or more interesting.

Reference—The Bible; Guerber's Story of the Chosen People; Baldwin's Old Stories of the East. (Last two from American Book Co., Chicago.)

LINCOLN'S BIRTHDAY

Teach the story of Lincoln's life as told in the Primary histories; tell some of the simpler facts about slavery and possibly some of the incidents from Uncle Tom's Cabin; teach the school to sing "The Battle Hymn of the Republic;" bring out the two purpcess of the Civil War, and show that a war begun to save the Union gradually became a war for the abolition of slavery—and that Lincoln seized the opportunity as soon as he thought it had come.

References—Any primary history; Blaisdell's Stories of the Civil War. (Ginn & Co., Chicago.)

WASHINGTON'S BIRTHDAY

Teach the story of Washington's life and show how he seemed to be trained for the great work he was to do; tell some incidents that will show why the Revolutionary War was fought—the taxes and the Boston Tea-Party, Boston Massacre; tell about the Declaration of Independence; show what Washington's share in the war was, and also tell something of his work after the war was over.

References—Any primary history; Pratt's America's Story, I; Baldwin's Four Great Americans (American Book Co.)

MEMORIAL DAY

Associate this celebration with the story of Lincoln. The emphasis now tho is on the Civil War; tell of the dispute about slavery; the meaning of secession; the call for troops; some of the topics talked over might be the army, the flag, guns, swords, knapsacks, the soldier's life, food, tents, suffering, wounds, and the awful loss of life. Perhaps the story of the life of Grant or Lee or both could be used; bring out the share of women in the struggle. Above all show the debt we owe to the old soldier and the fact that all people should strive to prevent war in the future.

References—The Primary History (story of Lincoln, Grant), Blaisdell's The Civil War (Ginn & Co.)

FOURTH OF JULY

Associate with the life of Washington. Lay the emphasis on Independence and make use of the story of Jefferson's life. Tell how the Americans got into a dispute with the English government, the meaning of independenc, how the Declaration was written; tell the story of the flag. Here as on Memorial Day describe the life, sufferings and service of the soldiers. Try to make the Fourth mean something to your pupils.

Among the books helpful in connection with the celebration of these holidays and elsewhere in lower and intermediate history are: Southworth's Builders of Our Country; Mace's Stories of Heroism; Tappan's American Hero Stories; Gordy's American Leaders; Williams' Some Successful Americans: Carrington's Beacon Lights of Patriotism.

STORIES OF INDIAN LIFE AND CUSTOMS

The purpose here is not that the pupil learn the story of any particular Indian or learn any particular group of stories, but rather that thru any material available to the teacher she get the pupil acquainted with the customs and manner of living of the Indians. It may be often more convenient to do this work in connection with geography or reading; it may often be the basis of a language lesson; the *where* is not important; the important thing is that somewhere in the lower grades the pupil shall gain the ideas that will help him to understand and be interested in the life of the pioneers. The Indian's food, his home, his means of travel, his use of the land, the division of labor in the Indian household—in short, how the Indian solved the problems of food, shelter, and clothing.

Sources of material—Starr's American Indians; Snedden's Docas the Indian Boy (both published by D. C. Heath & Co., Chicago); Pratt's Far East and Far West; Red Children; primary histories; Hiawatha; Judd's Wigwam Stories.

INTERMEDIATE GRADES

It is expected that after physiology is dropped the fourth and fifth grades will continue to recite together in this period but that the time hereafter shall be given to history and spelling—probably not alternating every day, but dividing the recitations about equally in number between the two subjects.

Intermediate history will be a continuation of that of the primary grades; the studies will be longer, there will be more written work required in the preparation of the lessons, there will be more practic in outlinng and organizing them, and the stories will be more of strictly historical nature. In place of the Indian stories of the primary, these grades will emphasize stories of colonial and pioneer life. The intermediate grades will of course have a large share in the programs celebrating the various holidays.

It is suggested that the stories told be grouped so as to bring out the various types of people; as the French explorer, the Spanish explorer, The Puritan, The Dutch, The Quaker, The Cavalier, The Southern Plantation Owner, The Pioneer Scout, The Pioneer Settler, The Rancher, The Prospector or Forty-Niner, etc.

Books helpful in the U. S. history taught in the intermediate grades can be found listed in the catalogues of any of the school book companies. Among them are: Gordy's Colonial Days and Gordy's American Explorers, Scribner's Sons, Chicago; Every Day Life in the Colonies, and Days and Deeds a Hundred Years Ago, Heath & Co.; Discovery of the Old Northwest, American Book Co.

In presenting pioneer days the teacher will find helpful such books as, Indians and Pioneers, and Mowry's American Pioneers, Silver, Burdett & Co.; McMurry's Pioneers of the Missippi Valley, and Pioneers of the West, The Macmillan Co.; Baldwin's Conquest of the Old Northwest, American Book Co.; Hitchcock's Louisiana Purchase, Ginn & Co.

The world was not created in 1492, nor did the influences that have made American life begin abruptly at that date. Teachers are coming to feel that somewhere in the grades, before the final systematic study of American history in the seventh and eighth grades, the pupil should gain some acquaintance with the world's advance before 1492. Of course the pupil in these grades is not expected to get a systematic knowledge of institutions; the most to be striven for is that he hear, and reproduce in part, sometimes orally and occasionally in writing, the stories of persons and incidents typical of those earlier times. The following list of stories was suggested by the Committee of Seven: Confucius, Nebuchadnezzar, Jason, Theseus, Hercules, Olympic Games, Croesus, Marathon, Alexander, Romulus, Hannibal, Caesar, Nero, Attila, Mohammed, Charlemagne, Vasco da Gama, William the Silent, Gustavus Adolphus, Peter the Great, Michael Angelo, Leonardo da Vinci, French Revolution, Napoleon, Kossuth, etc.

Some teachers will like to use together with some such list as the above stories of the Aryan Boy, the Spartan Boy, the Athenian Boy, the Roman Boy, etc.; others will go to literature for part of their material and will use the Story of the Iliad, Adventures of Ulysses, Story of Aeneas, Tales of King Arthur, stories of the Crusades and the tournaments as seen in Scott's Ivanhoe and Talisman, etc. There will of course not be time to use all the material we have sug-

gested; what can be presented in a given case will be determined by the amount of time given, the teacher's acquaintance with the stories, the material available in the teacher's and school libraries.

Some books which will be found helpful are: Andrews' Ten Boys, published by Ginn & Co.; the "Famous Men" series of four books, Greece, Rome, Middle Ages, Modern Times, American Book Co.; Tales of the Round Table, Longmans, Green & Co.; Kemp's History for Graded Schools, Ginn & Co.; Book of Golden Deeds; Warren's Stories from English History, Heath & Co.

In general it is expected that the schools that use these stories will use them in alternate years—the fourth and fifth grades together taking up American history stories one year, and Old World stories the next. In that case the sixth year would take some elementary history, mainly a collection of biographies of historical characters, using it as a text for a history period if the program permits, otherwise using it a part of each month as a reader or sometimes as a basis of language lessons. In other schools, especially village or city schools, it will be better to use American history stories regularly in the fourth grade and the Old World stories in the fifth grade.

SEVENTH YEAR.

The seventh grade begins the use of the grammar grade text in United States History. It covers the periods of discovery and colonization, the struggle between the French and English, the Revolution, and gives three months to a study of the Critical Period and the Constiution itself. Those familiar with the former Course will note some changes but will recognize that the work here laid out for the seventh grade is substantially as in the preceding Course.

We are coming to understand that geographical conditions, waterways, valleys, passes, mountains, physical and industrial conditions, have had a share in shaping American history, far greater than has generally been recognized. The list of books for the State Teachers' Reading Circle a few years ago contained Semple's American History and its Geographical Conditions, Houghton, Miffilin & Co. Other books designed to bring out the relation of geography to history are: Brigham's From Trail to Railway thro the Appalachians, 50c, and Brigham's Geographic Influences in American History, $1.25, both by Ginn & Co; The Redway School History, Silver, Burdett & Co. $1.00; another book emphasizing industrial history rather than the more purely geographical is Coman's Industrial History (Macmillan Co.) tho this is a book for the teacher rather than for the grade pupil; all the newer histories are placing more emphasis on these phases of our history and teachers should get in line with the movement.

For some time too histories have been placing more emphasis on the actual living conditions, customs, and ways of doing things than was once the case; to help teachers in this the Course has mentioned for the lower grades several books along these lines. Other books to the same end are: Hart Source Readers, four books, Colonial Children, Camps and Firesides of the Reovlution, How our Grandfathers Lived, Romance of the Civil War (Macmillan Co., 40c to 60c); Gordy's Colonial Days (Scribners, 50c); Lads and Lassies of Other Days (Silver, Burdett & Co., 54c).

FIRST MONTH.

EARLY EXPLORATIONS.

Conditions in Europe. The Crusades. Trade with the East. Revival of Learning and increased interest in geographical knowledge. Portugal's part. Early explorations of the Northmen. Study briefly the location of the different groups of Indians and their habits and customs.

SPANISH EXPLORATIONS. 1492—1565.

Location: Southern North America, Central and South America. Discuss briefly the work of Columbus, Vespucius, Balboa, Magellan, Cortez, Pizarro, De Soto. Show that with few exceptions their purpose was not to found successful colonies so much as to fill their own and Spain's coffers, and that this together with slavery and the mistreatment of the Indians made their colonies weak.

FRENCH EXPLORATIONS.

Early explorations (1534-1550) by Cartier along St. Lawrence. Attempts by the Huguenots to found a colony end in failure. In the fifteenth century under Champlain, Nicollett, Marquette, LaSalle and others the French establish a valid claim to the valley of the Mississippi, Ohio, and St. Lawrence rivers and the region of the Great Lakes. Their methods of colonization not such as to warrant greatest strength.

ENGLISH EXPLORATIONS.

These earlier efforts of no value except to furnish some basis for a claim to the Atlantic coast of North America.

Dutch explorations under Henry Hudson and the Dutch West India Company. Settlements at New Amsterdam and Fort Orange. The patroons.

SECOND MONTH.

ENGLISH COLONIZATION. 1607—1732.

The Plymouth and London Companies. Their grants. The religious, social and political conditions in England that furnish a motive for colonization.

1. THE NEW ENGLAND COLONIES.

Massachusetts. Plymouth colony. The Pilgrims, the Mayflower Compact, the character of the colonists; union with Massachusetts Bay in 1691.

Massachusetts Bay Colony. The Puritans and their character. The early settlements. Charter transferred to New England. Self government; relations of church and state.

New Hampshire and *Maine* briefly treated as out growths of Massachusetts; the first independent in 1679 but the second a part of Massachusetts until in 1820.

Rhode Island. Troubles with dissenters in Massachusetts and Williams' founding of the colony at Providence. Another group of dissenters under Mrs. Hutchinson found a colony. Williams secures a charter for the combined colonies.

Connecticut. Settlements at Saybrooke and New Haven on account of rivalry with the Dutch. Troubles over state and church in Massachusetts and the founding of Hartford; constitution of 1639.

New England Confederacy, 1643—84.

Purposes. King Phillip's War. Governor Andros. Final charter—1691.

III. Middle Colonies.

New York. Early Dutch settlements, the dissatisfaction with the rule of the Dutch governors, the surrender to the English, 1664. Andros in New York. Dutch spirit of conservatism predominant. Read Rip Van Winkle and some of Knickerbocker's History, and get acquainted with the Dutch character.

THIRD MONTH.

Pennsylvania. Penn's grant. The Quakers and their beliefs. The frame of government. Treaty with the Indians. Early settlements in New Jersey and Delaware and their acquisition by the Quakers Delaware a separate colony, 1713.

III. Southern Colonies.

Virginia. London Company. Colony at Jamestown and the work of John Smith. New charter in 1609. Events of 1619. Expulsion of the Puritans and coming of the Cavaliers The Great Immigration. Royal colony in 1660. Governor Berkeley. Bacon's Rebellion. Navigation Laws.

Other Southern Colonies Briefly.

Maryland. Baltimore's object in founding the colony. Toleration Act.

The Carolinas. The grant to Clarendon and his associates. Northern portion settled by Virginians and southern by colonists sent out by the proprietors. Grand Model fails. Proprietary government unsatisfactory, colony divided and each part a royal colony.

Georgia. Oglethorpe's object in founding the colony. The grant, 1732. Savannah founded. Colony prospers and defends the English colonies against Spain. Becomes a royal colony.

FOURTH MONTH.

Struggle for Supremacy between England and France.

I. Minor Colonial Wars, 1689—1748, Briefly Treated.

General cause, the hatred of French and English, their religious rivalry, and their struggle for trade and territory; the immediate occasion of each outbreak was some European war. Contrast the French and English methods of colonization. Note that the fighting is mainly of the Indian style of warfare; have a vivid description of the destruction of some one village by a night attack. Note the capture of Louisburg by the colonists. English secure Acadia.

II. French and Indian War.

Same general causes as the other wars, but the immediate occasion of this war on this side of the ocean in the conflicting claims to the Ohio valley. Washington's journey and its result. Albany Convention, why important. Note the chief points the English wished to capture and why each was im-

portant. General French success up to 1757. Pitt as prime minister; English successes, 1758, 1759, 1760. Treaty of Paris. Results of the war in territory institutions ,and in preparing for the Revolution.

CONDITION OF THE COLONIES, 1760.

Growth in population.

Resources, trade, manufacture.

Customs of the people—differences in social and religious matters.

Political ideas. Forms of colonial government. Colonial assemblies; their attitude toward the governors. Notions of the people regarding taxation.

Growth of the feeling of unity.

FIFTH MONTH.

REVOLUTIONARY PERIOD, 1760—1783.

England's attempt to enfore the Acts of Trade and navigation; Writs of Assistance; Otis' speech.

The Parsons' Cause; Henry's defense of the rights of the colonial assemblies.

Parliament's attempt to tax the colonies—The Stamp Act, Declaration of Rights; New Taxes and their repeal except the tax on tea; Boston Tea Party and the Five Intolerable Acts.

Immediate occasion of the War—the sending of the expedition to Concord.

WAR IN 1775 AND 1776.

Lexiton and Concord. Second Continental Congress; appointment of Washingtcn as commander-in-chief. Bunker Hill. British are forced out of Bostcn. English fail in an attack cn the South and we fail in an attack on Quebec.

British invest New York, but find Washington there to defend it. Declaration of Independence (Give considerable attention to this topic). Howe wins the battle of Long Island; Washington retreats across New Jersey and across the Delaware into Pennsylvania; then suddenly turns and wins the battles of Trenton and Princeton.

SIXTH MONTH.

Organization of the colonies into states and formation of the Confederation.

Burgcyne's expediticn; its purpose, the failure of St. Leger, Bennington, Saratoga, and Burgoyne's surrender. Effects.

Howe's campaign against Philadelphia. Plots against Washington.

George Rogers Clark gets control of Northwest for us; here as elsewhere in the study of the war use maps freely; note location of more important British posts; attitude of the French; what Clark's campaign meant at the close of the war.

The French alliance; the hatred of England; work of Franklin and La-Fayette; British retreat from Philadelphia; other nations lend us aid.

War in the South; Savannah and Charleston taken; Gates defeated; work of Marion, Sumter, Pickens; Greene sent south; British driven out.

Why Cornwallis was at Yorktown; Washington's plan and how he hoodwinked Clinton; aid of the French; surrender of Cornwallis; this ends the war so far as we are concerned, tho British continue to hold New York and some other points until the treaty of peace.

SEVENTH MONTH.

Treaty of peace. Franklin, Jay, and John Adams as commissioners; terms of treaty as to independence, boundaries, surrender of posts, and loyalists.

Land claims of the different colonies, disputes, and grant of claims to the central government; Ordinance of 1787.

Weakness of the Government; troubles with England over the Western posts, loyalists, and trade with her and her West Indian colonies; trade disputes between the various colonies; paper money troubles; Shay's Rebellion; debts to pay and no money to pay even the interest. Constitutional Convention. How it came to be called; its leaders; abandoning of the Articles of Confederation altogether; the three chief compromises; the struggle over the ratification, the work of Hamilton and the Federalist, and the reasons why some prominent men opposed the Constitution. Struggle ended with the ratification by New Hampshire as the ninth state, June, 1788; election how called and result.

EIGHTH AND NINTH MONTHS.

Eighth and ninth months are spent in study of the newly adopted Constitu tion by the outline given below. Fiske's Critical Period, Boyle's Civil Government, Ship of State (a statement by several U. S. officials of the actual work they have to do), Appleton's Uncle Sam's Secrets, any Civics text, will be found helpful. The history text will not be found of much direct help, but will furnish illustrations which will make clearer the meaning of the outline; e. g., the statement that Congress can impeach U. S. officers will mean more if the pupil reads of the impeachment of Pres. Johnson; Congress may pass tariff measures—let the pupils look up the tariff measures of Hamilton and then note that the McKinley Act and the Payne-Aldrich tariffs are recent illustrations of the same power; President appoints certain officers—refer the class to pages in the text where they are told of various appointments, etc. Aim not so much at a systematic knowledge of all the chief facts, as to interest the pupils in the way we are governed and help them to see what government is doing for us now; hardly a newspaper or magazine but will give some help and many of them will be largely of material interesting and instructive regarding govern mental and social institutions around us.

1. Provisions of the Constitution: Articles 1, 2 and 3: form of government. Article 4: relations between states and United States. Article 5: method of amendment. Article 6: minor provisions. Article 7: ratification. Amendments 1 to 10, inclusive form of Bill of Rights Amendment 11 limits powers of United States Courts. Amendment 12, provides for present method of electing president and vice president. Amendment 13, abolishes slavery. Amendment 14, gives negroes rights of citizens and readjusts representation, etc. Amendment 15, gives negroes right of suffrage. Amendment 16 and 17, authorizing direct popular election of U. S. Senators, and authorizing Congress to levy an income tax

2. Departments of Government: I. Legislative. II. Executive. III. Judicial.

I. Legislative powers vested in congress. Congress consists of two houses: (a) House of Rrepresentatives. (b) Senate.

(a) House of Representatives. Number determined by population. Elected

for two years by people, usually from districts. Qualifications: 25 years of age, seven years a citizen and an inhabitant of the state from which he is chosen. Officers: Speaker (chosen by members), clerks, sergeant-at-arms, chaplain, etc. Salary: $7,500 per year. Special powers: Impeach federal officers, present bills of revenue.

(b) Senate. Two members from each state. Term: 6 years. Qualifications: 30 years of age, nine years a citizen of the United States, and an inhabitant of the state from which he is elected. Officers: Vice president presides. In his absence president pro tem elected by the senate from its members. Secretary, sergeant-at-arms, chaplain, etc. Salary: $7,500 per year. Special powers: Try impeachments, ratify treaties, confirm appointments of the president. Note amendment allowing election of senators this primary election.

(c) General provision relative to Congress Meetings, every year, first Monday in December. Sessions of Congress are ordinarily two, long and short. Long session begins December of odd number of years. Short session December of even number of years. Quorum to do business must be a majority. Each house judge of its own members. Makes rules for procedure. Must keep a journal. No adjournment by either house for more than three days without the consent of the other and to no other place. Special sessions may be called by the president at any time.

(d) Powers of Congress. Eighteen general powers enumerated in Section 8 of Article I. Section 9 of Article I. enumerates powers that are denied to Congress.

II. Executive Department: (a) President. (b) Cabinet.

(a) President. Elected by presidential electors chosen in the various states. (Look up the method more in detail.) Term: four years. Qualifications: 35 years of age, natural born citizen, 14 years resident of the United States. Salary: $75,000 per year. Powers: Commander-in-chief of army and navy, grants pardons and reprieves, appoints ambassadors, ministers, judges and officers not otherwise provided for by law. Duties: sends message to Congress, calls extra session of Congress, receives ambassadors, adjourns Congress in case of disagreement, executes laws.

(b) Cabinet. Basis for this is found in Section 2, Article 2, wherein it says: "He (the president) may require the opinion in writing of the principal officer in each of the executive departments, etc." These departments have been organized by congress from time to time since 1789. Departments now in existence in order of rank are: State, Treasury, War, Justice, Post Office, Navy, Interior, Agriculture, Commerce and Labor. Each presided over by a chief called a secretary except in the case of the department of Justice and the Post Office department, over which preside respectively the Attorney General and the Postmaster General. Heads of these departments are appointed by the president; term, four years or during the president's pleasure. Salary: $12,000 per year.

Duties: To carry out the president's policy in the respective departments. Functions of the various departments in brief are:

1. Department of State deals with out relations with foreign nations.
2. Department of Treasury controls the public debt, collection and disbursement of public revenues and coinage of money.
3. Department of War controls and directs the army.
4. Department of Justice furnishes legal advise, directs action of United States marshals and attorneys.
5. Department of Post Office directs the operation of the postal system.
6. Department of Navy controls and directs the navy.
7. Department of Interior controls bureaus of public lands, pensions, Indians, census, and education
8. Department of Agriculture directs all investigation for promotion of agriculture, controls weather bureau.
9. Department of Commerce controls commercial relations.
10. Department of Labor controls industrial affairs.

Note. The work of these departments should be looked up in detail by advanced pupils and books of reference should be provided for them.

(c) Vancancy in the presidency: Filled by vice president. In case of death or resignation of both president and vice president the succession is now provided for through the cabinet members in the following order of rank except that Secretaries of Agriculture, Commerce and Labor have not yet been included in the succession.

III. Judicial Department.

(a) Vested in: 1. Supreme Court. 2. Circuit Court of Appeals. 3. Circuit Court. 4. District Court. 5. Special Courts, i. e., Certain territorial courts and various courts of claims.

(b) Supreme court created by constitution and organized by congress, all other courts created and organized by Congress.

(c) All judges of United States courts appointed by the president for life or during good behavior.

(d) Courts in some detail.

1. Supreme Court. One. Organized 1789. One chief justice and eight associate justices. Jurisdiction largely appellate and final.

2. Circuit Courts of Appeal. Organized 1891. Nine in number, one for each circuit, composed of three judges. Jurisdiction entirely appellate

3. Circuit Courts organized 1789. Nine circuits. At least two circuit judges in each circuit Each district judge can also hold court. Jurisdiction, prinicpally over civil cases arising under the provisions of the constitution and statutes of the United States.

4. District Courts organized 1789. One at least in each state. Some states have three or four district courts Generally one judge for each district. Jurisdiction principally criminal cases arising from violation of the laws of the United States.

Note. The detailed statement of the jurisdiction of the United States courts is altogether too complicated to attempt here and we state it only in a general way..

EIGHTH YEAR.

This year's work deals with the Constitutional period. It is not expected that all the details given in any grammar grade history are to be learned or that all the "Important Events" given by any history are even to be studied. The course is not laid out in administrations tho the pupils should learn the names of the presidents in order and how many terms each served; and who was president should be frequently brought to the pupil's attention as one means of locating the event in its proper place. The main thing is to follow thru a series of related events, see how they came about, how they were related to each other, and the results of them all. The teacher will undoubtedly find some events he wishes to present in addition to those mentioned in the course; this to a limited extent the Committee approves. On the other hand grade history is not designed to be a compendium of all the events that have attracted national attention. Aim to help the pupil to understand clearly the chain of great movements that have led to the present, how they came about, and what they mean to us.

In the eighth grade the pupils are able and should be expected to do more than before in general reading, to look up references to other texts and occasionally to make special reports of three to five minutes in length. Of course this outside work should not be made burdensome nor should it go to the extent of breaking up the organization of the work; the Committee too realizes the limitations of rural school libraries. However it would seem that every class should have access to and be taught to use at least one grammar grade history in addition to their text, and also several books similar to those named for use in the intermediate grades. Is it too much too ask that each teacher have for her own use one history of high school grade to the end that her outlook upon causes and relations be a little wider than that expected of her pupils?

FIRST MONTH.

Spend a day or two in a glance at preceding periods, and a few days in a study of the general outlines of the new government.

Notice the occupations, customs, ways of living, travel, etc., of the time.

Organizing the new government, the cabinet, problems, Hamilton's financial plans, rise of political parties, Whiskey Rebellion and its results and meaning.

Let the teacher spend a period in telling the pupils about the French Revolution and the wars it resulted in; then let the class go to the histories and discover the sympathies of the American people, conduct of Genet, Jay's Treaty and its reception by the people; attempted neutrality, XYZ papers, fighting with French ships, Alien and Sedition laws; and Kentucky and Virginia resolutions.

The election of Jefferson and its meaning; appointment of Marshall—why an important event; new method of electing a president.

Purchase of Louisiana, its earlier history, why they sold it and why we wanted it; terms, Lewis and Clark's expedition; the Western fur trade.

SECOND MONTH.

Let the teacher tell briefly the story of Napoleon's contest with England over commerce; then pupils in the history find how it affected us; our Embargo and Non-Intercourse acts; and how these troubles and others bring on the War of 1812.

Causes of the War of 1812; failure of our attempts to invade Canada; struggle about Lake Erie—attitude of the Indians, Harrison's victories and Perry's victory; our victories on the ocean; unpopularity of the War in New England; Battle of New Orleans; Peace and its terms. Results of the War as to American seamen, U. S. Bank, and new tariff. Trouble with Creek and Seminole Indians during the War and afterwards; trouble in Florida; purchase of Florida

Changing economic and industrial conditions—the Western migration and rise of states beyond the Alleghanies before 1815; life of the pioneers; invention of the steamboat; the Cumberland Road; Erie Canal; effect of all these things in the development of the West; rise of factories in the North; plantation life in the South.

Rise of the slavery disputes; review the ordinance of 1787; notice effect of the cotton-gin; slave trade law of 1808; the Missouri Compromise.

Rise of republics south of us; attitude of Europe; Russia in the Northwest, Monroe Doctrine.

Story of Adams' election, Jackson's popularity, the tariff of abominations and Jackson's election.

THIRD MONTH.

New party alignments—Whigs and Democrats; what each stood for; introduction of the spoils system. Jackson's election the triumph of the West; conventions for nominating presidential candidates first used.

Tariff debates; why the North and South differed on the tariff; nullification troubles; Webster-Hayne debate; Jackson's attitude.

Indian troubles briefly touched on and considered as part of the steady movement of crowding the Indians out of their lands.

Jackson's attitude toward the U. S. Bank; defeat of charter renewal, money deposited in state banks; speculation; specie circular; panic of 1837; Van Buren's election and establishment of the independent treasury; repudiation of state debts.

Election of Harrison, a Whig; his death and the succession of Tyler a Democrat; all the plans of the Whigs blocked; U. S. Bank and independent treasury defeated.

Number of local troubles like Anti-Rent troubles and Dorr's Rebellion parts of a movement for the rights of the people; several boundary disputes settled; Polk elected on the two issues of Annexation of Texas and "Fifty-four Forty or Fight."

FOURTH MONTH.

Show how the Annexation of Texas led to war with Mexico with both sides sure they were in the right; discuss in one recitation the campaigns of Taylor and Scott; in another the work of Kearney and Fremont in winning the Southwest and the terms of the treaty; Gadsden Purchase.

Settlement of the Oregon Boundary Dispute.

Rise of the anti-slavery party 1835-50; Wilmont Proviso; California applies for admission; fierce debates in and out of Congress; Compromise of 1850 carried by Webster, Clay, and Calhoun against opposition of Seward and the younger men; its provisions; Fugitive Slave Law objected to by the North; Underground Railroad, Personal Liberty bills, and Uncle Tom's Cabin; Kansas-Nebraska bill and struggle for Kansas.

Development of North thru immigration from Europe; the telegraph, extension of railroads, and stemboat traffic on the Great Lakes and the rivers; development of the upper Mississippi Valley.

Rise of American literature; names of principal writers, their principal writings; many of them share in the anti-slavery movement.

FIFTH MONTH.

Slavery question still paramount. Dred Scott Decision; Lincoln-Douglas debates; John Brown raid; election of 1860, platforms, candidates, result; secession,—the facts and northern and southern views as to the right to secede; Buchanan's attitude; attempts to compromise.

Lincoln and his Cabinet.

Civil War;—causes, immediate occasion; relative strengths of North and South; purpose of the war at first to save the Union; Confederacy cut off from the outside world by the blockade; Merrimac and Monitor; Trent Affair; Attitude of France, England and Russia. General plan of the Union campaign; failure of McClellan to capture Richmond; Grant's campaign of 1862. Emancipation Proclamation as a war measure.

SIXTH MONTH.

Rapid survey with maps in hand of the Eastern campaign from Second Bull Run thru Antietam, Fredericksburg, and Chancellorsville to Gettysburg, what Lee was trying to do in his invasion.

The campaign (briefly) that led to the surrender of Vicksburg.

The story of Bragg and Buell, and of Bragg and Rosecrans, rapidly covered with maps in hand; Chickamauga, Seige of Chattanooga; final Union victory.

The work of the navy; the blockade; capture of New Orleans.

Grant as commander-in-chief; the Hammering Campaign; Sherman's March to the Sea; Thomas' defense of Nashville; closing in upon Lee and Johnston; final surrender of Confederate armies.

Results of the War, saving of the Union, downfall of the States' Rights doctrine, abolition of slavery.

Cost of the War in lives, property, debt, and taxes; cost in sectional feeling; finances of the War-bonds, paper money.

Assassination of Lincoln; succession of Johnson; quarrel as to the proper method of Reconstruction; attempted impeachment (Do not try to have any eighth grade class go far into this quarrel.)

Other events of the time—French forced out of Mexico; purchase of Alaska; Atlantic Cable.

SEVENTH MONTH.

Bad conditions left in the South by the War; negro problem; political troubles in the South, Carpet-Baggers; KuKlux and Force bills; gradual growth of a fairer attitude on the part of the North; troops withdrawn from the South.

Extension of Railroads; opening of the West; settlement; speculation; panic of 1873.

Paying off of national debt; withdrawal of much paper money from circulation; resumption of specie payments; Bland-Allison Silver Act.

Labor troubles—explain what the workmen are fighting for and meaning of strikes, lockouts, boycott, and blacklist; Chinese exclusion.

Assassination of Garfield; Civil Service Reform begun.

EIGHTH MONTH.

Labor troubles continue; anarchists in Chicago, Pullman Car strike, Homestead riots, Coal Strike of 1902 (Describe one of these in some detail; merely refer to the others.)

Western development continues; Homestead Act; Tree-claims; Mining developments (See geography texts; opening of Indian reservations. Four states admitted in 1889 and several more later.

Development of the south—iron and coal mines; manufacturing (See geographies); improved method of agriculture; advance in education; industrial schools; improvement in conditions of negro.

Tariff discussions; meaning of protective tariff and tariff for revenue only; former attitude of the parties; rapid view of the Mills, McKinley, Wilson, Dingley and Payne-Aldrich bills. Proposed "Tariff Board."

NINTH MONTH.

Our new possessions. The Annexation of Hawaii; Spain's misuse of Cuba; Cuban insurrection; Our war with Spain (briefly); terms of treaty; the value of Porto Rico and the Philippines to us; what we have done and are doing for them; the Panama Canal, its advantages and the chief facts about it; our Navy.

Industrial change. New machinery; electricity and the cable, light, telephone, street-car, and wireless telegraph; new farm machinery. Mail delivery in city and country; proposed parcels' post. Growth of railroad combinations and trusts in all lines of industry.

Some things attracting attention now—the Progressive movement in politics; reforms in city governments; conservation of our natural resources, mines, forests, water-power, waterways, soil; "Better Farming Movement"; introduction of new subjects into the school courses; Woman Suffrage; Referendum.

An Outline of Social Study for Elementary Schools

A. INTRODUCTION.

The recent developments in our country have abundantly shown that much of the abuse which has arisen in our political and industrial affairs has taken place because of the one-sided and exaggerated individualism which has been fostered in our educational and political system. Our psychology has been individualistic and our moral precepts and teaching have been in the direction of viewing the individual as a separate agent, alone accountable for his success and without obligation to the community which has really produced him. The cure for the bad conditions and the establishment of a better order of things must, in large part, proceed out of a better knowledge on the part of individuals of their place and function in society and of their duty to it. This knowledge cannot be given in a year by way of mere precepts bearing on duty in the abstract but must arise from a long innoculation through concrete teaching about the social relations of the individual and institutions as they are found in action in the community about the youth.

Among the many new educational conceptions which have appeared during the last few years the perception of the need and worth of socializing the child by the use of his social environment is a valuable one. More especially it is to be observed that this socalization is in reality a moralization, for, as Professor Dewey indicates, there is a vast difference between "moral ideas" and "ideas about morality," and what is now needed is the former. Moreover, moralization should be a process in which the emotional attitude of the child is developed relative to social situations so that his moral ideas are moving ideas and in his judgments and reactions to a given situation he identifies himself with the side of justice and right, thus exercising the very functions in his school career that will be demanded of him in after life.

Much time is now given to discussing "how morality shall be taught." Very largely these discussions run to formulating schemes of teaching morality by precepts and text books. It is to be questioned if this formal teaching of morals would make moral people. To quote Professor Dewey, "these moral principles need to be brought down to the ground through their statement in social and in psychological terms. We need to see that moral principles are nto arbitrary, that they are not 'transcendental'; that the term 'moral' does not designate a special region or portion of life. We need to translate the moral into the conditions and forces of our community life, and into the impulses and habits of the individual." (Moral Principles in Education, pp. 57-58.)

It is conceived that the embodiment of the social context of the child in his educational process, thus giving him an understanding of its nature and operations and a sympathy with its best ideals would be in reality and in a large way moralizing the individual.

As in the case of nature study, which begins in the early years of the school and gives simple lessons about objects in nature and which becomes more and more complex in the obpects considered or in the study of the objects and processes of nature until at the end of the elementary schools it is found capable of being differentiated into the several natural sciences, so there should be a range of social studies which begin with the simple things, the persons or functionaries of the community, in the early years of the school and takes in larger and larger areas of social facts and processes until at the end of the elementary schools the differentiation into the various social sciences may proceed. This is both a preparation for the higher work which will follow if the individual goes on in his educational career, and is a preparation for life in case the pupil is forced to drop off along the way.

It is not intended that this should displace history and civics which we now have. It would rather be supplemental and foundational for both. History is the study of the past currents of life. It unfolds to the mind's eye the great dramas which have been enacted in the past ages of human activities. Social study considers what is taking place in society now in a fundamental way. It is a cross-section of the present, viewing individuals and institutions as organs and factors which have a definite and specific service to perform in their interdependent articulations and organic operations with the larger social mechanism. It looks to the future and seeks to show the individual and the institution how they may better operate for their own good and that of the larger whole. It emphasizes the all around interdependence of men and institutions as based on divisions of labor and keeps in the foreground the ideal society, the ideal condition of community life, the ideal relationship of the man in the service of humanity. Because it does this it is a needed foundation for the unraveling and the understanding of the story told in history. It is a value study and gives the child standards of value to measure the worth of the historical events as they are met. It enables history to assume larger significance than it otherwise could.

In like manner it is not civics, though civics may be articulated with it as a phase of social study. For illustration, botany is nature study but the reverse is not true because the whole is greater than its part. Nature study, proper, opens up all sections of concrete nature to view. It is the basis of all the sciences, both physical, biological, and anthropological. The same is true of social study. It gets at all parts and phases of community life, not merely the political or governmental. There are five or six fundamental phases of social life, or we may call them interests, which are expressed in human institutions or organizations, namely, the means or instruments which men operate through to satisfy these various wants. Some of these important segments of society are political, economic, religious, esthetic, cultural, and sociability or "social." Civics covers that small section included in the political. It gives but a fragmentary view of man in his social relations. Social study would therefore supplement this valuable study.

It would also be a foundation for civics. Civics takes up the somewhat specialized study of the functions in society of a section of society, as was just said. Social study would first establish the idea of a larger entity called society, its interdependent, organic, and co-operative nature; secondly, give the idea of the function or service of every person or organization as a part of society: third, give ideals of what society and community life should strive to be, what the individual should be, and what his attitude should be to make possible the realization of progress and betterment. As Professor Small says of sociology:

"Sociology declares that every thing which man does is connected with every thing which every other man does. Before it is possible to learn this truth except by rote, we must get acquainted with a great number of facts which exhibit the principle. We must learn to see how one act affects another in our own lives; how one neighbor's conduct has to do with another neighbor's comfort; how the things that we do depend on the things that others have done." (Professor A. W. Small, Introduction to Thurston's "Economics and Industrial History," page 13.)

B. FIRST FOUR YEARS

In the first four years of school life the child is at the beginning of the larger conception of the world or that there is a larger world of activity than he has enjoyed in the home. The child of six must have played with other children to a degree and discovered that similarities and differences exist between himself and others. He has found satisfaction in the presence of other children and in carrying on activities with them. Now he is to carry this farther and to gain a larger insight into his powers of enjoyment and action and of pleasure which comes thru closer concord and identification of interest. The object of social study in this period is not to get the child to build up and formulate a doctrine of social life or of social give and take, but to establish such conditions that the advantages of co-operative action and of mutual usefulness may be recognized.

FIRST YEAR.

Expression of the associational sense and the beginning of concerted volition should be accomplished in this year. In so far as the children have attended kindergarten previous to this year, these preparatory steps have been made in a measure. In most cases this privilege is denied. The most natural and obvious means of accomplishing the object mentioned is play and games. Games of the simple sort are especially adapted to put into effect a germinal organization in which a common aim is set up and each participant has a part which makes or mars the success of the whole enterprise. Hence the child discovers that he must control himself and his bodily members in order to play successfully, his disposition is improved, he gains some understanding of human nature, picks up some technique of plans of procedure, may develop some initiative and leadership and some idea of group zeal, loyalty, and devotion. It is perhaps possible in this first year that the intelligent teacher may lead the children to discover the facts of interdependence and co-operation as facts.

It is assumed that play in the succeeding years will be used to further develop the social sense and associational ability. As this is an outline of social study the play phase will be dismissed.

The following suggestions of works helpful to teachers may be made:

Giddings, Inductive Sociology, Book II., Part II., Chapter 3 and 4, shows the origin of the consciousness of kind and of concerted volition. Fundamental to give insight and understanding.

Johnson, Education by Play and Games, Ginn & Co., deals with nature of play and games, play ages, and lists and descriptions of games for each play period.

Games for the Playground, Home, School and Gymnasium, Bancroft-Macmillan Co. Gives repertoire of games and also social and pleasurable elements in them.

Heller, Mrs. H. H., The Playground as a Phase of Social Reform, Russell Sage Foundation, No. 31. Proceedings of the Third Annual Congress of the Playground Association of America, a very full outline of all phases of organized play.

Child Problems, Mangold, Book II., Chapters 1 and 2 on Play and the playground movement.

SECOND YEAR.

A STUDY OF THE HOME GROUP

The home group is quite as obviously the social group with which to begin to teach the facts of association as that play is the place of expression of the sense of association and the power to act in concert. It is the medium in which the child has developed thus far, and it enfolds him during the extra- school hours. Further, it is the epitome of the larger world in its simpler terms and phases. The beginnings of the larger social life and institutions may be laid bare, such as the common welfare, need of co-operation and division of labor, mutual rights and obligations, law, government, culture, religion, and protection.

Common Welfare. This is probably represented by the word "living" to the child, and may be brought into sight by questions as to what articles and material things are needed for the health, happiness and support of the home, and as to what is most needed and what the family could get along without.

Co-Operation and Division of Labor. What does father, mother, sister, brother, hired help, do to furnish the things and services needed to make the home? Suppose one should get sick or die or go away, what would happen? What article or service would be missing?

Mutual Rights. How much belongs of food, clothing, heat, room, etc., to father, mother, brother, sister? May one eat all the butter or cake or pie and why? Should mother do all the washing, cooking, etc., if children are large enough to help her? Why? And so for each member of the family.

Law and Government. Are there any rules in the home? Who makes them? Who enforces them? Who decides if the offending member is guilty and what the penalty is? Are there any witnesses in trials? Who is the judge? Do all obey the same rules? May father come in with muddy feet if Johnny may not?

Culture. Is there a library? books? papers? What for? Does any one talk, tell stories, teach any child? Why? Suppose no one talked or read in the home. Is there music? pictures? Is not home a kind of school?

And so for religion and protection in the home.

Some helpful books on this year's work for giving suggestions of the function and importance of the family are these:

Small & Vincent, Intd., to Sociology, Amer. Book Co., Sections 83-7,
Henderson, Social Elements, Chapter 4, "The Family."
Elwood, Sociology and Modern Social Problems, Chap. 3.

THIRD AND FOURTH YEARS.

A logical advance over the work of the second year is the study of the neighborhood. This should be expansive and suggestive as in the case of the family. Ideas of relationship should develop without dogmatic teachings. The essential ideas obtained thru a study of the domestic group may be discerned in the next larger and more complex group, the neighborhood. Questions should be asked to bring out the nature, location, means of carrying on, the purpose, and authorization of the work of the various kinds of workers of the community. Further questions elicit information as to the mutuality of the work done by each, whose needs are fulfilled by it, whether those of the worker, the employer, the neighborhood group or lager society or all.

Compensation for service in various ways and the exchange of products and services may also receive interrogations.

The average rural community furnishes the following workers or functionaries who may be the object of the question: Farmer, teacher, preacher, mail-carrier, blacksmith, carpenter, thresher, farm-hand, house girl, justice of the peace, marshal, school officers, road supervisors, etc. In a village or city other functionaries may be added at will, such as merchants, transfer men, lawyers, doctors, bankers, delivery men, car men, railway employees of various sorts, etc.

A suggestive treatment of the rural and village communities in the development of their functions and division of labor is found in Small &Vincent, Intd. to Sociology, Chaps. 3, 4. See also Boyle's Government of North Dakota, Chap. 21, Local Government.

FIFTH AND SIXTH GRADES

By a gradual evolution in the method of presenting to the child the social matter which surrounds him the teacher has thus far proceeded from mere suggestion and motor attitude to something approaching analysis and exposition of a systematic nature. The grammar grades should see the completion of this development, the more systematic efforts being left to the last year. The more complex phases of groups and situations may be taken up in the fifth and sixth grades and the study should be made more intensive by extending the range of the questions to more ultimate causes and conditions. Perhaps another distinct advance occurs in the ideal pursued by the teacher. The object is to

make society appear to the pupil as quite as real and vitalized an object as would the insect, animal or plant in the nature study class. In fact, the very object of this social study course is to create in the child's mind that conception of the social world which regards it as a working organism, an interdependent and co-operative system of individuals, which is to serve as an advance on the common idea of so many discreet and independent individuals.

Further, the teaching should be so dynamic with ethical motive that the sentiment of justice and social right, of ideal actions and attitudes shall appear, the social judgments shall be built up and exercised, and the child be led to identify himself with the principle of democracy and fair dealing.

FIFTH GRADE.

Either of the groups already studied may be reconsidered in a more intensive manner. But it would probably be better to develop some other group in this way since a new field might arouse fresh interest, permitting the reconsideration of the others later, if desired. In the following suggestive outline of the intensive study of the school the teacher may adapt the material to the situation by omitting the consideration of such officials or functionaries as are not involved in the school the pupils are acquainted with.

This outline study of the school is taken from the articles on a social science outline by J. S. Welch, Elementary School Teacher, May and December, 1906.

"Intensive study of the school, a Principal. Consider selection of teachers and books; arranging course of study; programming studies; noting progress of pupils and advancing them in their school work; care of school property; of individual and school rights; health and safety of pupils; proper janitor service, etc.; service to the social group.

"b. The teacher. Consider: what she is for, how she does her work; the preparation she has made; who benefits by what she does; how she is helped—hindered—in her work; whose loss when she is hindered; how hindrance may be avoided; what she has a right to expect; her service to the school group; to the social group.

"c. The janitor. Consider: What he does; why he does it; why it is important; what the result if neglected; how it may affect us; how he is helped—hindred—in his work; what should be our attitude toward him; why; what are his needs; how are they satisfied; what he exchanges his labor for; we satisfy his needs for what; what he gains; what we gain; what effect his absence would have on our work.

"d." The pupil. Consider: What he is here for; basis of the right; who makes the privilege possible; what he gives in return; the benefit to those who pay for it; who furnishes him the conditions for growth; what his attitude should be toward property; why; toward school books; toward his own books; why; how he is helped to make wise use of books and materials; how is the teacher helped—hindered—in doing this; how the pupil is affected when the teacher is busied with non-essentials; what he has a right to expect from teachers; what teachers have a right to expect from him; what factors make a school; what conditions determine growth."

An alternative study or a supplementary one to the school may be found in a study of a primitive group as a complete organic social body. It is another means of gaining an idea of the simpler forms and institutions of society. Such a group may be the Siouan or the Iroquoian for example. Questions on family, clan, and tribal government, on war and peace, on civil and military chiefs, on medicine and medicine men, on religious ideas and rites, on modes of hunting, fishing, raising crops, housekeeping, division of labor between men and women, on education of the boys and girls, on keeping records of events, on communication and language, on implement making, on mythology, etc., may bring out the salient points.

The Fifteenth Annual Report of the Bureau of Ethnology furnishes a comprehensive study of the Siouan peoples. Thomas, Source Book for Social Origins gives study of the Iroquoian confederacy, and of other primitive groups, such as the Australian. Miss Dopp's Cave Man, Tree man, etc., are suggestive of beginnings. The Proceedings of the Historical Society of North Dakota, Volumes 1 and 2, furnish much material and illustrations relative to Siouan people. The Story of Ab by Waterloo, and Before Adam by London are interesting stories of primitive life.

SIXTH GRADE.

As a study for the sixth grade, pioneer conditions may be selected. Such a study would be representative of recent frontier conditions or of those a century ago. This would be especially valuable to give a working idea of how societies got started and how they developed. It would show how the interdependencies got started also, and how very desirable they were after people had had to do without them.

a. Consider the land. What the prairie (or forest) was like; what was the character of the soil; what kind of vegetation grew; what kind of animals and birds; what advantage the soil, vegetation, and animals would be to settlers; what was the climate and how it affected the newcomers or hindered them.

b. The immigrants or settlers. Where they came from; were they savage or civilized and what difference it would make in them and in what they did; what they brought with them in property, equipment, animals, books, and why; what their personal equipment in knowledge, education, skill, ideas of government, religion and education, taste and character; their motives in settling in an unsettled country as related to getting a living and property, their sacrifices in companionship and conveniences, and their curiosity about the region.

c. The beginnings. Consider: why the particular piece of ground was chosen; why the home was located where it was; how the house and stables were built; how the ground was broken (and cleared perhaps); what the man did; what the woman did; which could get along best without the other; how they protected their home from fire and themselves from disease; how they procured or made the articles they needed; what the daily round of work for man and for wife; what amusement or recreation; what was done with their produce, what they got for it.

d. The coming of others. Consider: the birth of children and the differences it made in work and incentive to man and woman; the hiring of a hand and its effect on the household cares, on the man's work, on production, on companionship; the appearance of emigrants; why they came; where they settled; what they brought of goods and information; the changes it made in the life of the original family; how they differed in ideas and personality from each other and the difference it made.

d. The neighborhood. Consider: How the farms are located; the necessity of a survey; how trails and footpaths are used; the likeness of family life and what it makes possible; the exchange of work and co-operation; the beginnings of specialization, the ferry, transportation; exchange of produce; the new store and how it becomes a social center; the appearance of a blacksmith shop and its effects; the school and why, results; the church, why, results; organization of a township, why, effects and services.

Especially helpful books on the fifth, and especially the sixth, grade work are: Small & Vincent, Intd. to Society, Chaps. 1, 2, on which the outline for frontier life is based; Thurston, Economic and Industrial History, first few chapters on occupation; Proceedings of the North Dakota Historical Society. Vols. I and II.; Gillette, Vocational Education, pp. 281-6.

An alternative or supplementary study to the pioneer community may be found in the correlation of the geographical and social factors of a physiographical unit.

Consider:

a. The topography in its area, configuration, altitude, and water courses, showing how each of these bears on the distribution of population.

b. Climatic conditions in the way of temperature, length of seasons, and amount of moisture precipitation with reference to farming and other occupations, products, etc.

c. Soil and natural resources, such as forests, fish, mines, and waterfalls, in their significance for farming, lumbering, fishing, mining, and manufacturing industries. The kinds of soil and the fertility of the soil would further differentiate occupations.

d. Populations, races, and nationalties, as to origins and characteristics, only in so far as they are necessary to explain differences which retard or promote the regional well-being and in so far as they illustrate the larger world.

e. Industries, in their bearing on the location and distribution of people, their reasons for particular locations, their relation to the life of the region, and their conditioning influences in the establishment and maintenance of commercial relations with the larger world.

f. Transportation and communicating facilities, in their bearing on the prosperity and satisfaction of the region and their influence on locating larger collective populations for commerce and manufacturing. In connection with these last two points much supplementary reading might be done. This is a good place to get out into the larger world by following the threads of communication and transportation to see how they really relate and unify the region with others.

g. Influence of pursuits and occupations on the life of the people of the region in the way of customs, habitations, dress, education, religion, culture, and government.

Civics

(GENERAL STATEMENT.)

In view of the two months given to national civics in the Seventh Grade History, it is planned to spend the eighth grade civics time on local and state civics mainly. Time spent on the text-book alone means usually time spent in memorizing lists of duties, salaries, etc., of the different offices; this if of doubtful value—unlikely to be remembered, not very valuable if remembered. What we should aim at is to bring the pupil into contact with things as they are actually happening, with the officials right at their work. The pupils are now citizens, in a few years they will be voters; they should be taking an intelligent interest in the affairs of government. This means they should be reading the papers and should be getting familiar with the bulletins, reports, pamphlets, of the various departments of government, the messages of the governor, etc.

The text in use will probably be one of three, Wood's School Civics, Boyle's Government of North Dakota, or Boyle's Beginner's Civics for North Dakota; both the others should be at hand for reference. Dunn's The Community and the Citizen is peculiary good in arousing an interest in citizenship. Every newspaper, local weekly, country paper, city daily, gives notices signed by various officials, tells of journeys taken by officials in connection with their official work, tells of meetings and actions of boards, gives official proceedings of vilage and city councils and county commissioners. To illustrate, two hours work by the writer found and cut out from a stack of old papers over forty items from a few lines in length to several columns in length dealing with the above mentioned topics. The North Dakota Blue Book, the School Laws, blanks used by various township, school district, and county officers, and business blanks such as mortgage, lease, deed, are often to be secured for the asking. People in your neighborhood would often be glad to tell you or your class of elections, court procedure, work of the justice of the peace, etc.

Civil Government

(COURSE BY MONTHS.)

EIGHTH YEAR

FIRST MONTH

HOME GOVERNMENT

Family is the basis of all well ordered society. Parents in authority. Influence of home is very potent. Lack of parental authority usually harmful. Duties of parents to children. Duties of children to parents. Children who love and respect their parents usually make good citizens.

SCHOOL

School Corporation. School District. Kinds of school districts: Common, Special, Independent, and districts organized under special laws. Common school districts of two systems? Township and district. How organized? By whom? Officers? How chosen? For how long? Their duties? Special district: How organized? By whom? Officers? How chosen? For how long? Their duties Independent districts: How organized? By whom? Officers? How chosen? For how long? Their duties? *The teacher*: How chosen? Her qualifications ? Certificate? Her duties? Her right?

School Funds: 1. District Taxes. 2. County Tuition Fund. 3. State Tuition Fund. 4. Bonds.

1. District Taxes. How levied? Limit of school tax?
2. County fund made up of two-mill tax on all property and the school poll. How distributed?
3. State tuition fund, made up of:
   (a) Interest and Income from sale and rental of school lands.
   (b) Fines and Forfeitures. How distributed? For what purpose used?
4. Bonds. Limit of the amount? How issued? For what purpose?

Other Points of Interest. School. How graded: primary, intermediate, grammar grades ,high school.

Course of Study. Its purpose and proper use.

State Educational Institutions. Normal-Industrial School. School for the Deaf. Scientific School. Normal Schools (2). Agricultural College University. Their location? Their government and control? Their purpose?

CIVIL TOWNSHIP

Area? How organized and by whom? Election held, when? Town meeting. Why interesting? Township officers. Who are they? How elected? For how long? Their duties? Salary of township officers? Township boards? By what body are the taxes of a township levied? For what purpose are taxes levied in civil townships?

COUNTY

Purpose of county government? Counties? How organized? From unorganized counties. (b) From counties already organized. How and when was your own county organized? Area required for county organization? Officers. Board of County Commissioners ,how many? How, is this determined? How elected? For what term? (four year). Salary? Duties of this Board? Who acts as clerk of this Board?

Other important county officers: Superintendent of Schools, Sheriff, States Attorney, Auditor, Treasurer, Register of Deeds, County Judge, Clerk of District Court.

Minor county officers: Coroner, Public Administrator, County Justices, County Constables, County Assessors, in counties containing unorganized townships. The office of Public Administrator was created by a recent legislature and the duty of this officer is to administer estates of deceased persons when there are no persons entitled to letters of administration .

Qualifications of county officers. How and when elected? Term?

Duties of the county officials as found in the text and reported in the various local papers.

SECOND MONTH

Roads. Importance of good roads—to the farmer; to the merchant or city dweller. Present system of road-making. The newly proposed system; its advantages; its disadvantages if any. The Meridian Road.

Public Health. Rights of society to protect itself; control of contagious disease. Prevention of disease; sanitation, pure food laws and inspection. Boards of health (Save notices from local boards of health in newspapers; get bulletins from the State Board of Health.)

Charity. Call attention to the amount of work of this kind by individuals, to the work of various organizations like the Children's Home, the Salvation Army in the cities, etc. Officially, charitable work is mainly in the hands of the county commissioners. Poor house and poor farm explained; note that in some counties the County Hospital is taking their place. Aid to individuals in their own homes (See proceedings of the county commissioners; if possible, talk with some commmissioner about it). The deaf, dumb, and blind—how cared for. County insane—Board of Insanity; Sheriff takes insane to State Asylum; expense how paid.

Police and Justice. Explain method of bringing an offender to trial, by whom arrest is made and how, who tries the cases, etc. Explain the terms criminal case, civil case, summons, warrants, subpœna, witness, judge, attorney, prosecution, defense, plaintiff, defendant, appeal. Show in a general way how a trial is conducted, weave most of the above terms into the story, show what the jury has to do, who pronounces the sentence and how it is determined.

THIRD MONTH

I. LOCAL FINANCE AND TAXATION

Why taxes are needed; who determines the amount of levy for the various governmental units; to whom the levies are reported.

Assessment of property; by whom and how he goes about it; assessed value as compared with real value; equalization, who compose the various boards, order in which the boards act and what they have to do.

Collection of the tax—who figures out the tax of each individual and how he goes about it; tax collected by whom, what notice each one has as to his taxes (See general notice as given in the paper and get a notice which was sent to some individual); when taxes are due and what penalty in case they are not paid; what banks have to do with the collection of taxes.

Distribution of the tax to the various units by the county treasurer.

II. INCORPORATED VILLAGE

Why incorporate villages? Requirements necessary for orgainzation? Steps necessary for incorporation? By whom incorporated? Officers of a village. When elected? For what term? Salary? Duties of village officers? What appointive officers may be had? Village boards? Taxes, by whom levied.

III. CITY

Purpose of city organization? Area incorporated? Requirements for incorporation? Steps necessary for organization? How is the matter of incorporation finally determined upon? (Cities of North Dakota have uniform charter or frame of government, provided under general laws of the state.) Elective officers of the city government. Who are they? How and when elected? Term of office? Salary? Sepcial city governments, how provided for? Who constitute the city council? What are its functions? City Boards? By whom are taxes levied in a city? Appointive officers. By whom appointed? Term? Duties? Salary?

Look up city government by commission. What cities in the state have this form of city government?

FOURTH MONTH

STATE OF NORTH DAKOTA.

Area of the state? History of the state; a part of what original territory; organization as a territory; steps necessary to the organization of a state? History of the organization: Enabling Act, signed Feb. 22, 1889. Constitutional Convention, July 4—Aug. 19, 1889. First State Election, Oct. 1, 1889. Proclamation of President, Nov. 2, 1889 First session of State Legislature, Nov 20, 1889 Form of state government? By whom guaranteed? General election. When does it occur? What voting system is used?

Departments of State Government are three: Legislative, Executive, Judicial.

Legislative Assembly. Meets biennially, first Tuesday in January of odd numbered years. Sessions sixty days. House of Representatives and Senate.

House of Representatives. Number of members one hundred three (103) from forty-nine districts. Qualifications of members? Term of office? Salary? Officers? Special powers?

Senate. Number of members forty-nine (49). One from each legislative district. Qualifications of members? Term? Salary? Officers? Special powers?

Executive Department: Elective officers: Governor, Lieutenant Governor, Secretary of State, Auditor, Treasurer, Superintendent of Public Instruction, Attorney General, Insurance Commissioner, Railroad Commissioner, Commissioner of Agriculture and Labor. Qualifications? By whom chosen? Term? Salary? Duties? Vacancies, how filled? .

Important appointive officers: Public Examiner, Oil Inspector, Commissioner of University and School Lands, Adjutant General, State Game Wardens (2), Superintendent of Health. By whom selected? Term? Salary? Duties?

Important State Boards:

1. Board of University and School Lands. Of whom composed? Its Duties?
2. Board of Equalization. Of whom composed? Its Duties?
3. Board of Health. Of whom composed? Its Duties?
4. Capitol Commission. Of whom composed? Its Duties?
5. Examining Boards: Medical; Dental; Pharmaceutical; Bar Examiners
6. Board of Trustees. Each state institution is controlled by such a Board.
7. Board of Audit. Of whom composed? Its Duties?
8. Board of Pardons. Of whom composed? Its Duties?
9. State Live Stock Sanitary Board.
10. Game Commission.
11. State Banking Board.
12. Public Library Commission.
13. Tax Commission.

FIFTH MONTH

Judicial Department.

1. Minor Courts.

   (a) Justice Courts, held by justices of the peace in civil townships, incorporated villages, cities, counties. Jurisdiction limited to petty cases, both civil and criminal.

   (b) County Court. One for each county. County Judge presides. Jurisdiction: settlement of estate of deceased. Appointment of guardians. Marriage licenses. By vote of the people of a county, the jurisdiction of a county court may be increased. (Look this up.)

2. Important Courts.

   (a) District Courts, ten in number, one for each district. Division of into districts. District Judge. Qualifications? By whom elected? Term? Salary? Duties and powers? Vacancies, how filled? Jurisdiction. In civil and criminal cases, both original and appellate. In probate cases, appellate jurisdiction only. The District Court has a petit jury to determine upon questions of fact. (Sometimes questions

of fact tried by Judge.) Jury: Composed of how many men. How selected. Explain fully. Do we in North Dakota have a Grand Jury? If so, when is it called? Procedure in court. Look up the following terms: summons, complaint, preliminary examination, bail, information, plea, witnesses, evidence, addresses of attorney, judge's charge, verdict, judgment, appeal, writs by district courts, mandamus, injunction habeas corpus, quo warranto, certiorari. Meaning and purpose of these words?

(b) Supreme Court, one in number, five judges, no jury. Judges: Qualifications? By whom elected? Term? Salary? (Salary $5,000 a year). Duties and powers? Vacancies, how filled? Officers of the Court. Jurisdiction, largely appellate and final, unless case involves a federal question. This Court has no jury and listens to no witnesses. All questions presented to the Court must be of law. Cases are submitted to the Court thru briefs, a printed book which contains all evidence brought in lower court. The Court generally listens to authorities as quoted and arguments of counsel on each side, after this the case is considered by the Court and some one judge writes the opinion. This opinion is the interpretation of the law and decisions which bear upon the case. This opinion is the final word upon that point, so far as this state is concerned. These opinions are presented in full in a volume called Reports of Supreme Court and are used by lawyers as a guide in the trial of their cases. Original jurisdiction only in cases wherein the powers, rights, or interests of the state as a whole are affected.

General Elections. When held? By whom? Counting of ballots. Returns made to whom? Canvas of returns, by whom? Ballot, what form used? Nominations, how made? May a name appear on the ballot without the person having been nominated by a political party? How are ballots marked? Elective franchise, who possesses same? How may a foreigner become qualified to vote? School franchise. Who possess it? Caucus, what is it? For what purpose is a caucus held? Convention. Of whom composed? Purpose of a convention? What method does away with the caucus and convention system? Discuss.

Look up primary election law in North Dakota.

SIXTH MONTH

Federal Relations. (One to two weeks.)

1. The State an inseparable part of the United States.
2. Officers of United States in the state.
   (a) Legislative.
      1. Representatives, 3.
      2. U. S. Senators, 2
   (b) Executive.
      1. Custom officers.
      2. Internal revenue officers.
      3. Indian officers.
      4. Land Department Officers.

5. Officers of Postal Service.
6. Officers of Department of Agriculture, and others.

(c) Judicial.

1. U. S. Commissioner.
2. Officers of United States District and Circuit Court.
3. District Judge.
4. U. S. Marshal.
5. U. S. District Attorney.
6. Clerk of U. S. Court.

State Institutions. Where located? Purpose of same? How governed? How supported? State Militia Of whom composed? How organized?

Land Survey. History of present method of U. S. Land Survey. What is a congressional township? What is a range? A township? A *base line?* A principal meridian? Congressional township, how designated. Divisions of congressional township, sections and quarter sections, etc., how are these designated? How does U. S. government dispose of the Public Domain? Location of U. S. Land Offices in North Dakota.

Review for remaining time

Arithmetic

GENERAL PRINCIPLES

All number work must be accurate and thorough. To this end strive for clear, pointed and accurate statements; bring the principle home to the pupil by vivid and varied application to objects seen and known by him.

Having acquired a principle and deeply engraved it through drill, it should be frequently brought back to the mind by review. This drill and review should occupy a considerable part of nearly every recitation and there should also be a general review at the completion of important principles.

There should be much oral work—much more than has usually been given. New principles should be presented orally and illustrated by the pupil through numerous problems which he can solve mentally (and easily) before any application requiring pencil are given. Much of the drill and review will also be oral. Thus the oral work will always go hand in hand with the written work. Oral or mental arithmetic should not be given as an independent course as so often happens when a separate book in the subject is used.

In all classes using a textbook the teacher must feel that the text is a servant, not a master; the teacher must feel perfectly free to omit any problems not needed by her class, and on the other hand will often need to supplement those in the book by means of problems taken from other texts or made up by the teacher.

Among the books on Arithmetic which will be found helpful by the teacher are: Davies' Fundamentals of Arithmetic, Westland Educator, Lisbon, N. Dak. 15c; Bulletin No. 460, U. S. Dept. of Education, Washington, entitled Mathematics in Elementary Schools, 15c; Smith's Teaching of Arithmetic, Teachers' College, New York, 35c; Walsh's Methods in Arithmetic, D. C. Heath & Co., Chicago, $1.00; Smith's Teaching of Elementary Mathematics, Ginn & Co., Chicago, $1.50.

ARITHMETIC IN THE LOWER GRADES

It is a universally accepted maxim that school work of any kind should grow out of the knowledge and interests the child already possesses. The work in number is no exception to this law. Many excellent schools have no separate classes in number during the first year of the pupil's school life. Whether or not this is wise surely we can agree that the number work of the first few months should be largely incidental to the other school exercises, construction work, nature study, games, etc., and in any case should be concrete—related to objects that are present or easily pictured in the child's imagination. For help in teaching primary number, the teacher will find very valuable: "First Journeys in Numberland" published by Scott, Foresman and Company; Stone-Mill's "Primary Arithmetic," published by Benjamin Sanborn.

The teacher should be provided with a box of toothpicks or matchsticks and a box or small rubber bands (No. 8); a number of inch squares of pasteboard (30 or more for each pupil); inch cubes (20 or more for each pupil); rulers divided to fourths of an inch (can be made of pasteboard if necessary, though the wooden ones can be bought of the supply houses at ten to twenty cents a dozen); a box of sticks of assorted lengths up to twelve inches, and all of some integral number of inches in length. Other things helpful in number work are "domino cards," forty-five in number each representing in dots some one of the forty-five combinations; similar cards with figures in place of dots, longer sticks of the length of yard, halfyard, two feet, two yards; the common weights and measures as pint, quart, gallon, pound, ounce, half-pound; a clock face, toy money.

GRADE I.

First six months. The work is oral and largely objective—no figures used except as an exercise in writing; not to exceed two recitations per week in number, giving the other three periods to reading, language or nature study, and teaching number incidentally with them as opportunity offers.

1. Acquaintance with numbers from 1 to 10, obtained by means of objects. Use considerable variety of objects, but (especially in presenting any new combination) not so great a variety in any one recitation as to confuse the pupil or to attract his attention to the qualities of the object rather than to the number. First show objectively, then give numerous problems involving the same objects and later other things, but always with care that the conditions of the problem be such that the pupil can easily picture them.

2. Idea and respective relation of foot and yard, pint and quart, cent, nickel and dime.

3. Idea of square inch and cubic inch, and their use as units of measure, limited to ten. Give much practice in building the inch squares together and comparing the sizes of the different groups; likewise with the inch cubes and the sticks of different length. The pupil should not only know that two sticks of two and three inches in length respectively equal a five inch stick in length, but should be able at a glance to pick out the two inch stick, the three, the five, etc.

4. Number relations expressed by 2's, 3's, 4's, 5's, and halves, thirds, and fourths, limited to ten and also limited to ¼, ½, ⅓. Apply halves to quarts and pints, thirds to feet and yards, and a little later in the year, fourths to quarts and gallons.

5. During these months avoid the use of such expressions as plus, minus, subtract, multiply by, and divide by.

Rest of the year: The preceding work continued, but with more periods per week than before; written problems may now be given and the common mathematical signs and expressions introduced. Do not however in doing this written work forget that far the major portion of the work is still to be oral.

6. Learn to count and write numbers to 100; count by 2's to 12, by 3's to 12, and by splints bundled in tens to 100.

7. Memorize these facts in addition:

2	3	4	5	6	7	2	3	4	5	6	3	4	5	4	3
1	*1*	*1*	*1*	*1*	*1*	*2*	*2*	*2*	*2*	*2*	*3*	*3*	*3*	*4*	*5*

8. Roman numerals to XII from the clock dial.

SECOND YEAR

From the beginning of the second year, number has its separate period every day. More than half of the recitation time should be given to oral work, some of this oral work should be drills on combinations but much more should be solution of concrete problems whose conditions can be easily pictured in the child's mind, and whose operations he can perform mentally. In these problems should appear constant use of the common denominate numbers; e. g., in using 2's, pint and quart, the 3's, foot and yard, the 4's, quart and gallon. The related fractions should be much used; e. g., as soon as the pupil knows that two threes make six, he should be thinking frequently of three as half of six, etc.

In this year, the pupil carries his reading of numbers up to 1,000; carries his memorizing of the "forty-five combinations" up to and including those whose sum is 14; learns the multiplication combination to 4×6; and has much practice in adding short columns of 2's, 3's, 4's, 5's and 6's; and in adding numbers of two or three orders, first without carrying, latter with carrying. In this connection it should be said that many good teachers object to the terms, carrying and borrowing, that "we shouldn't borrow without paying back, etc." The expression, "taking one from tens column and giving it to units" is surely little improvement but the term "reducing" or its simpler equivalent, "changing" units to tens or tens to units, etc., is better liked by many.

It is getting to be more and more customary to teach subtraction in part at least by "additive subtraction"; i. e., with the learning of the addition combination,

$$\begin{matrix} 3 & 5 \\ 5 & 3 \end{matrix}$$

the pupil learns to apply it to subtraction without realizing that it is anything but another form of addition. The teacher places on the board the combination in this form; $\begin{matrix} 3 & 5 \\ - & - \\ 8 & 8 \end{matrix}$, with the instruction to the pupil to fill in the figure to indicate the number to be added in order to get the given total.

FIRST MONTH.

The first month should review thoroly all the combinations of the first year's

$$\begin{matrix} & 2 \\ & 5 \\ \hline \end{matrix}$$

work with applications in oral problems. With the fact of 7 couple the facts

$$\begin{matrix} 1\frac{1}{2} & 32 & 2 & 2 & 2 \\ 5 & 5 & 15 & 45 & 65 \\ \hline \end{matrix}$$

17 37 17 47 67 etc. Review also the fractional relations ½, ¼, etc, as used the

preceding year. Apply to other appropriate measures, to sticks of various lengths (being careful however that they apply only the unit fractions as ½, ⅓, ¼, etc)

Counting:—Readily to 1000; by 2's to 50 and by 3's to 21.

Writing:—Numbers of 100, and fractional forms as developed.

Measures:—Dozen, quart, peck, bushel, yard, square yard, square inch, cubic inch.

Application:—Original problems, games, measuring larger units with smaller and larger groups with smaller; comparison of one small group with another where there is an integral difference not greater than 5, stating the difference.

SECOND MONTH.

Counting:—By 2's and 5's to 100; by 3's to 30, and by 4's to 20. Counting by 2's and 3's to 25, starting with various numbers, as is here illustrated with the number 3;—0, 3, 6, 9, etc., or 1, 4, 7, 10, etc. or 2, 5, 8, 11, etc.

Writing:—Numbers to 200.

Measures:—Previous ones reviewed and dollars, halves and quarters.

Combinations. Review counting by 2's to 12; then drill on two 2's, three 2's, five 2's, six 2's, etc. When this is well learned, word it 2 times 2, 4 times 2, etc., then turn it around and ask, How many 2's in 6? In 10? In 8? And later, six divided into 2's is three 2's, etc. Memorize facts of addition:

8	9	8	7	6	7	5	6	5
1	*1*	*2*	*2*	*3*	*3*	*4*	*4*	*5*

Review fractional relations so far presented, and develop 5ths with pennies and nickels, 10ths with pennies and dimes.

Find the half of all even numbers to 10; the thirds of 3, 6, 9; the fourths of 4, and 8. Using the quarts and gallons, change halves to 4ths and back again. Treat the fractional relations of halves and tenths, 5ths and 10ths, 3rds and 9ths, similarly.

6 added to and substracted from all digits, then the principle extended to numbers of two orders, without the idea of carrying or borrowing. (See the first month.)

Divide any number up to 10 (inclusive) by any smaller number, indicating the quotient and remainder. Numbers of two orders added, two or three figures in a column, no carrying.

Practice simple column addition with at first three and then four figures in a column, no addend being greater than 4 and no sum over 12.

Measure larger groups by smaller, using as units halves, thirds, fourths, fifths, tenths, hundreds, dozens, pints, quarts, gallons, pecks, yards, cents, nickles, dime, quarters, halves, dollars, etc., all quotients to be integral and not larger than 10.

THIRD MONTH.

Counting:—By 3's and 4's to 30 and by 5's to 20, beginning at 0, 2, 4, respectively. Apply this counting to multiplication and division as in the second month and extend 2's to 20, 3's to 18, and 4's to 20.

Writing:—Numbers to 300.

Measures:—Week, day, hour, clock dial by hours, halves and quarters.

Review all fractional relations so far presented (see two previous months)

and present 12ths, objectively, then concretely, and finally abstractly, using inches in a foot to picture the relation. Reduce fractions objectively, from higher to lower denominations and back.

7 added to and substracted from the digits, as 7 8 9 and after being de-
7 7 7
veloped and memorized, applied in increasing and decreasing numbers of two orders, as wholes; that is, without the idea of carrying.

Practice column addition, no addend greater than 5, no sum over 10.

Application:—Concrete and abstract problems. Problems made by teacher and pupil, in every conceivable form, made natural to pupil by involving objects with which he is familiar. Particular stress to be laid on smaller fractions, ½, ¼, ⅓, ⅔, in these problems. Continue measuring of larger units by smaller.

FOURTH MONTH.

Counting:—By 3's and 4's to 72; and by 2's, 3's, 4's and 5's to 35 from various beginnings as in earlier months. Apply the counting as in earlier months and extend the 3's and 5's to 30 and the 4's to 24. Apply in fractional relations as ½ of 12, ¼ of 16, etc., with care that the denominator shall always divide exactly the number of which the fractional part is to be found.

Writing:—Numbers to 500.

Any digit except 9 added to or substracted from any digit larger than itself.

Adding numbers of two orders two or three figures in column but no carrying involved.

Substracting numbers of two orders with no borrowing involved.

Single column addition with no addend greater than 6 and no sum greater than 20.

Application:—Measurements, comparisons, playing games, buying and selling and making change up to $1.00 and problems based on the real life of the children.

FIFTH MONTH.

Counting:—By 2's, 3's, 4's from 0 to 100; by same numbers from various beginnings as in previous month. Apply as above in multiplication and division to 6 times 4 and 6 times 5.

Writing:—Numbers to 700.

Review the addition of the digits to each other digit equal or larger than itself, and review the application of this principle to numbers of two orders. Beginning with the making of written tables, work for rapidity in recalling first in systematic order, and finally in promiscuous order, both oral and written combinations.

Substracting digits from 11, 12, and teens so there will be a remainder of 10 or more, first as wholes,—as 2 from 13=11, then showing it as 2 from 3 and nothing from 1. Apply the principle in substracting digits from any other number of two orders in which the unit of the minuend is as large or larger than the digit.

Single column addition, no addend larger than 7, and no sum larger than 25.

SIXTH MONTH.

Counting:—By 2's and 3's to 100, various beginnings.

Writing:—Numbers to 900.

Combinations:—Adding of numbers of two orders wth two or three figures in a column and carrying involved; make the carrying clear by use of the bundles of splints.

Continue substraction as before without borrowing.

Single column addition, no addend larger than 7 and no sums over 30.

Continue fractions, but sometimes reversing the process as, 5 is ½ of what? 4 is ¼ of what? (Always using *one* for the numerator of the fraction).

SEVENTH MONTH.

Counting:—By 4's, 5's and 10's to 100, and by 6's to 40, from various beginnings; backwards from 100 by 2's, 3's and 5's.

Writing:—Numbers to 1000.

Combinations:—Elementary operations, including important fractions, to 22. Rapid drill in reviews. All relations to be memorized without regard to order.

Increasing and decreasing numbers of one or two orders by any number of one order.

Addition and substraction of numbers of three orders, no carrying or borrowing, as high as five numbers in the addition column.

Measuring large quantities of larger units by smaller, and drill in measuring larger abstract numbers up to 22 by smaller .

Single column addition, addend as large as 8 sums under 60.

Application:—Practical problems by teacher and pupil, involving the measurement of units known and the relations prominently under consideration.

EIGHTH MONTH.

Counting:—By 7's or 8's from 0 to 56; by same numbers from various beginnings to 25; apply in multiplication and division and in fractions, but always with one for numerator.

Much practice in addition of numbers of three orders with carrying and in substraction with borrowing.

Use many concrete problems applying the integral combination being made and also the fractional, but with care in these not to go beyond the fractions the class can easily handle.

Drill on the abstract combinations to memorize them as far as products up to 24.

Application:—Measurements and comparisons; day, week, month; reading time by clock to minutes; writing each day the current date; drill on units of preceding months; forming rectangles with inch squares of cardboard; drawing rectangles with integral number of inches in each dimension, and separating them into inch squares finding how many times the whole contains a one-inch square and what part one row of the squares is of the whole. Find cost of several articles when the cost of one is given, and the reverse, etc. Written problems to be limited to numbers of two orders.

NINTH MONTH.

Counting:—By 9's to 40 beginning with any number up to 9.

Combinations:—Elementary operation to 25. Review and drill.

Products of any number of 4's up to six, and of 5's up to five, and the number of 4's and 5's in the above products.

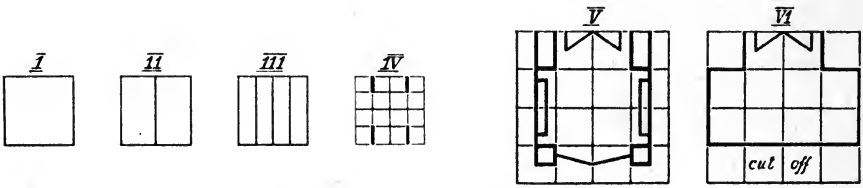
Addition and substraction in numbers of three orders, carrying and borrowing in first and second columns.

Single column addition, sums under 100.

General review of year's work with many drills, constant concrete applications, and use of fractions so far as studied.

FIRST AND SECOND GRADE CONSTRUCTIONS.

There is little work in the school which the child enjoys more than the hand work or constructions. The results must be satisfying to the child or the work will not hold his interest. The construction must represent fairly accurately the article it is intended to represent. However, the material result alone is not our aim. We are concerned with the development of reasoning, judgment, accuracy, self control, originality, and real power.



Box Bed Dresser

I. Represents a four-inch square. Let the children name objects of this shape; as, table, mat, handkerchief, box, etc. How many edges has it? (Four). Measure the length of each edge. (They are equal).

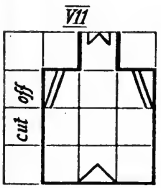
II. Represents a four-inch square showing the diameter by one crease. Objects suggested by it: book, screen, trough, etc. Facts: two rectangles, equal in size; opposite edges equal.

The two opposite edges in II are folded to the center crease to make III. Place to represent screen, cupboard, table, etc. It contains four rectangles of equal size.

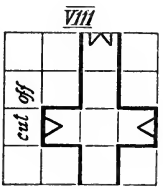
IV. Fold the other diameter in III. Fold each edge to center crease. Four rows of four one-inch squares. How many squares? (Sixteen). Cut on the heavy lines; turn the corner square against the square next to it and paste. This makes a square box. A strip ¼ inch by 4 inches may be pasted on opposite sides as a handle and we have a basket. Two boxes may be made and one of them used as a cover.

Many articles for a doll-house may be made from the sixteen-square or from sixteen oblongs. Use shapes best fitted for making each article. Dresser, bed, chair, piano, fire-place, cupboard, are interesting problems for every child.

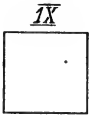
It is more simple for children to fold sixteen squares or oblongs than twelve or nine. We cut one or two rows of squares or oblongs and leave twelve or nine. In the following cut on the heavy lines:

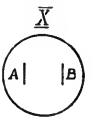


Rocker



Chair





There are interesting constructions without the use of paste. These are based on intersecting planes.

X and XI. Cut a 2-inch square and a 2-inch circle. Fold the square down the middle and cut the folded as in a and b in the figure. Cut the circle into two semi-circles, and insert the semi-circles in the slits a and b; this represents a cradle. Or make two more slits like a and b; divide semi-circle into two equal parts; insert these pieces of the circle into the slits and we have a corner cupboard.

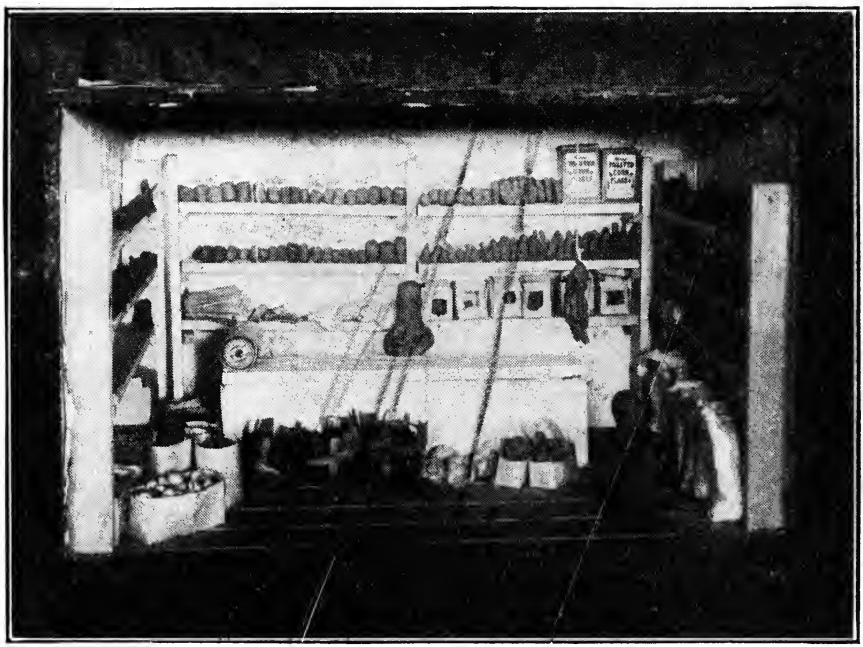
Divide a two-inch square into two equal oblongs; insert in the slits a and b of the preceding construction and we have a settee.

Cut slits a and b in X and insert a strip 2-inches by ½ inch; fold the ends of the preceding construction and we have a settee.

Fuller directions for this and other construction work may be found in Jessie Davies' "Organized Construction," published by Kindergarten College, 1200 Michigan Ave., Chicago, at 25c.

Construction correlated with other work.

In the fall and the interest in farm work is increased by planning and representing a miniature farm. A table or top of a larger desk or top of a large box may be used for this scene. The fields, pasture, garden, machinery, buildings and animals may be represented by sticks, paper, and clay.



A grocery store constructed by the First Grade children of the Model School of the Valley City Normal

Many of these products are later found in the grocery or general store. After reports of observations are given and discussions of arrangements of goods, etc., the children and teacher may visit a store if permission is given by the owner. As the different articles are being made by the children, the cost and means of weighing or measuring them is considered. When the store is completed the children use toy money and "play store." This prepares for the Thanksgiving work.

Representing the history thro constructions involves measuring study of proportions, size and form. The first picture in the group illustrates the interior of a Pilgrim home. The second shows the log houses, wigwams, Plymouth Rock, forest, and the Mayflower in the Bay.

Christmas work comes next. Several scenes of the true Christmas story may be shown, as the Sheperds on the Hillside, The Wise Men, Little Town of Bethlehem, Gifts are made to take home. The true Christmas spirit of love and thoughtfulness is felt.

An Eskimo scene may be made in January. The last picture shows the Eskimo village including icebergs, igloo, animals, dogs, sled, and people. In February a soldier camp is interesting. During the spring, Indian life, Robin-

son Crusoe, Tree Dwellers, Story of Ab, will furnish a fund of sources for construction work.

All materials are simple and these results may be accomplished in any school in North Dakota.

THIRD YEAR.

The third year's work reviews all the work of preceding years with much drill on addition combinations; gradually advances the pupil in reading numbers and writing them, until at the end of the year he can read and write any number to 100,000; continues practice in carrying in addition and borrowing in substraction; teaches multiplication and division tables up to 10 times 10 and the use of these tables in multipyling numbers of three and four digits by any number of one digit and in the corresponding short divisions, and in fractional parts of numbers up to 10 times the denominator (a single digit). Pupils will have a book now but the bulk of the work will still be given by the teacher in oral and blackboard problems; the teacher should aim in these problems to keep fresh the pupil's acquaintance with denominations in common use, pint, quart, gallon, inch ,foot, yard, pound, cent, dime, dollar.

FIRST MONTH.

1. Review their reading and writing of numbers with gradual advances.
2. Review and drill on addition combinations introduced the first year and with them the corresponding substractions.
3. Review counting by 2's and apply it in drills on the table of 2's up to 9 times 2 and in adding columns of 2's.
4. Using 2 as a multiplier, find its product with any number of two orders, no carrying; then with numbers of three orders.
5. Numbers of two, then three, orders divided by 2, the dividend being some multiple of the divisor and no carrying involved.
6. Apply all principles in numerous practical problems.

SECOND MONTH.

1. Counting by 3's reviewed with various beginning and special drill as

5 6 7 8 9

3 3 3 3 3 with corresponding substractions and all this year as the pupil drills on any combination as, e. g. $\begin{array}{r} 5 \\ 3 \\ \hline \end{array}$ let him apply this in $\begin{array}{rrrrrr} 5 & 5 & 15 & 35 & 75 & \\ 13 & 23 & 3 & 3 & 3 & \text{etc.} \\ \hline \end{array}$

2. Multiplication and division of previous months reviewed and cases added in which each figure or pair of figures is a multiple of the divisor, and later other cases in which the first pair of figures in the dividend may not be integral multipliers of the divisor, as in 110÷2.
3. Multiplication by 3, as in case 2 of last month.
4. Practical problems. Counting by 2's, 4's, etc. up to 9's

THIRD MONTH.

1. Review of counting by 4's from various beginning, and especially

5 6 7 8 9
4 4 4 4 4 with corresponding substractions.
— — — — —

2. Counting by 4's from 0 and multiplication by 4 as by 3 in preceding month. Review 2's and 3's often.

3. Division by 2 and 3, and apply in finding ½ or ⅓ of two place numbers.

FOURTH MONTH.

1. Review of 5's in addition from various beginnings, especially

6 7 8 9
8 8 8 8
— — — —

with corresponding substractions.

2. Multiplication by 5 and division by 5 or 4; finding one fourth or one fifth of any number of two or three places exactly divisible by the denominator of the fraction.

3. Much drill on addition of columns of 2's, 3's, 4's and 5's, and multiplication by same digits.

4. Problems to illustrate and digest these combinations and with simple direct explanations required. In these problems tablet or board may be employed a little by the pupils, but the bulk of the class work should be purely mental.

FIFTH MONTH.

1. Addition and substraction of 6's, especially

6 7 8 9
6 6 6 6
— — — —

2. Multiplication and division by 2, 3, 4, or 5, to 2 times 10, 5 times 10, etc.; thoroly reviewed and drilled on at this point before going on into the last four tables of this year.

3. Many simple problems applying these combinations to pint, quart and gallon, to peck and bushel, to foot and yard, cent and nickel, half, third, and fourth of 12 inches.

SIXTH MONTH.

1. Counting, multiplying and dividing by 6 up to 6 times 10; use of one sixth of any of these multiples of 6.

2. Writing of dollars and cents, using sign and decimal point; easy problems in adding and substracting the same.

3. In advancing to 5 and 6, do not forget reviews and drills on 2's, 3's and 4's. If at any time the class seems weak on some number or table taught earlier, seize an early opportunity to stop and drill on it for a day or two.

Many practical problems, some written but more oral.

SEVENTH MONTH.

1. Adding by 7's from various beginnings, especially

7 8 9
7 7 7
— — —

and corresponding substractions.

2. Counting, multiplying and dividing by 7 to 7 times 10.

3. Multiplying by any digit up to 5 extended to numbers of four places.

4. Use of one sixth, one seventh, etc. applied by short division to numbers of two and three digits, exact multiples of the divisor.

EIGHTH MONTH.

1. Counting by 8's from various beginnings, especially

8	9
8	*8*

2. Multiplying and dividing by 8's, with much drill on the table of 7's and 8's. Some application to four place numbers.

3. Continue the oral problems and the practice adding and substracting U. S. money, noting carefully the position of the decimal point.

NINTH MONTH.

1. Counting by 9's from various beginnings, especially noting

6	7	8	9
9	*9*	*9*	*9*

6	9	7	8

and applying them in *29 59 39 49* etc

2. Counting by 9's from 0 to 90 and application of it to multiplication and division by 9's.

3. Application of sixths, sevenths, eighths, and ninths in oral drill with multiples of the denominator up to ten, and some use of the same fractions of exact multiples of the denominator of three and four places.

4. Addition and substraction of fractions of a common denominator up to ninths or tenths.

FOURTH YEAR.

The book will be used more this year than before, but in this increasing use of the book the teacher must not confine the work to the book. There will be much need for blackboard problems both in the nature of drills and in practical application of number. In every grade, too, there must be much oral work both in the drills and in the introduction of new kinds of work.

Give all the practical and supplementary work that time will permit.

All illustrations and explanations should be clear and often repeated.

Drill in neatness of work on paper and on the board.

This year's work carries the multiplication tables through 12x12; introduces use of a multiplier of two or more orders; and teaches long division. As heretofore, the application of all these operations to practical problems goes hand in hand with learning the operation.

FIRST MONTH.

Review of the elementary operations already studied. Part of the work each day should be adding columns of four to six figures practicing for both accuracy and speed. Another part should be reviews of the multiplications by numbers up to five.

Division of these numbers and application of these divisions in fractions.
Apply to all the denominations so far studied.
Extend multiplication table to 2x12, 3x12, 4x12, and 5x12.

SECOND MONTH.

Addition of columns of six or seven figures, with many 6's, 7's, and 8's in the column.

Multiplication by 6, 7, and 8, reviewed and extended to 6x12, 7x12, 8x12, division by the same numbers.

Apply in fractions to numbers up to 12 times the denominator orally and in occasional written problems up to three or four figures.

Apply to quarts and pecks. Reduction of gallons and quarts to pints (all three denominations in one problem while before there have been but two denominations in one problem) likewise yards and feet to inches, and bushels and pecks to quarts.

Addition, substraction, multiplication, division of United States money by any number of one digit (especially attention to the decimal point.)

Continue the wor kn fractions; many problems, mainly oral, in finding cost of ½, ¼, etc., dozen articles at so much per dozen, or so much per article.

THIRD MONTH.

Addition of columns of six or eight figures with many 7's, 8's, and 9's in the column.

Multiplication and division by 9 and application to sq. ft. and sq. yds.

Further practice with United States money, adding to the kinds of work already used the fractional parts of a dollar.

Much practice in short division and often with remainders; teach the expressing of the remainder either as a remainder or as a fraction.

FOURTH MONTH.

Multiplication by numbers expressed by two digits.

Multiplication by numbers of two orders ending in 0, as 20, 40, 80, 60. Apply in problems in seconds, minutes, and hours

Continue simple work in fractions; illustrate concretely the equality one-half and two-fourths, one-third and two-sixths or three-ninths, using divided lines, or rectangles or circles.

Continue practice in short division.

FIFTH MONTH.

Begin long division with problems that "come out even" and have only two figures in the quotient as well as two in the divisor. At first use 11 and 21 as divisors, since with these the pupil can easily determine the quotient figures. Gradually increase the difficulty of the divisor, but this does not mean exactly increase the size; several easy divisors are 11, 21, 31, 41, 22, 32, 51, 61, 71, 13, 52, 63, 72, 74, etc. Among the most difficult (consequently to be left until later) are 28, 29, 38, 39, and above all 17, 18, 19. (Do not allow use of long division where the divisor is in one figure.)

Continue practice and concrete illustration in changing small fractions to lower or higher terms.

Providing for work in division, by multiplying divisor and quotient together to get the dividend; if in dividing there was a remainder, it would be added to product of quotient and divisor to get the dividend.

Use names of divisor, dividend, quotient, remainder, as names without asking the pupils to memorize definitions of the terms.

SIXTH MONTH.

Continue long division, using occasional more difficult divisors, but not so often as to endanger the pupil's understanding of the process; have a problem or two proved every day.

Give drill in addition and in multiplication especially if the inaccuracy in division shows the need of it.

SEVENTH MONTH.

Continue work in long division, and now the divisors should often be numbers of three orders, beginning with such divisors as 213, 621, 317, etc., and avoiding such divisors as 193, 287, 178, etc.

More work in simple reductions in fractions and additions such as $1\frac{1}{4}$ $5\frac{1}{4}$ $4\frac{3}{4}$
$2\frac{1}{4}$ $3\frac{1}{2}$ $6\frac{3}{4}$ and the addtition of $5\frac{1}{2}$ to 3 3-10; also substractions involving similar reductions but not involving any reductions of mixed numbers.

Reductions in the table of time, but with seldom more than three denominations in the same problem (in actual business one has seldom more than two denominations in the same problem.)

Fundamental operations in United States money continued.

EIGHTH MONTH.

Much oral work applying the tables of multiplication and division and the smaller fractions to the measurements now known.

Long division with three digits in the divisor; have one or two problems proved each day.

Give much practice in short division and insist where the problem requires division by any number of one digit that short division be used.

Problems applying the combinations of numbers of two or three orders.

NINTH MONTH.

Reducing of fractions to lower and higher terms (but no numbers used except those involved in the tables up to 10x12.) Reducing of mixed numbers to improper fractions, illustrated concretely at first, then applied in larger numbers, but confining the work to numbers learned in the tables and with no numerators in the answer larger than 75.

Review of the year's work.

FIFTH YEAR.

General Suggestions:

If the work is carried out as outlined above the pupil arrives at the fifth grade with considerable knowledge of fractional parts of measures, quantities, and numbers. He has, however, little systematic knowledge of fractions under that name; this year's work is to collect and systematize his knowledge and to extend it through the principal kinds of problems that arise in the fundamental operations with fractions.

It is expected as before that there will be much oral work (1) in drills, (2) in presenting any new topics, and (3) often simply to help the pupil gain and keep the habit of picturing to himself the conditions of the problem.

The work of this year is still with fractions whose common denominators can be found mentally.

After the half year of work in common fractions, the remainder of the year is given to decimal fractions and applications of the two denominate numbers.

FIRST MONTH.

Review of multiplication and division; practice in long and short division starting with easy divisors and progressing into more difficult ones as fast as the skill of the class will permit.

Teach clearly the meaning of the numerator and the denominator in the fraction (not merely the definition of these two words, but by numerous illustrations make clear the work each actually does.) Give plenty of work in writing and reading fractions. Use small numbers. Every new relation should be developed by means of oral work; continue to devote the entirfe period to mental arithmetic at least once a week; every process or relation mastered should be reviewed by means of simple illustrative examples orally. (Simple, informal analysis.)

Practice in reducing fractions to higher and to lower terms continued, and gradually some written work introduced.

SECOND MONTH.

Continue work in reduction to higher terms and apply to addition and substraction of fractions. (Let the denominators used be such that the common denominator can be determined by inspection.

Much oral drill in simple fractions applied to the denominate numbers learned in previous years.

Reduction of numbers to improper fractions reviewed and extended to larger numbers.

THIRD MONTH.

Teach multiplication of fractions.

Simple fraction by a whole number.

Fraction by a fraction.

Mixed number by a fraction or whole number.

Mixed number by a mixed number. (In the last two of these be especially careful not to make the numbers too large or the problem too complicated.) Be sure that each step is clear before anything new is undertaken.

Apply to denominate numbers and practical problems, as $6\frac{1}{4}$ lbs. of butter at 24c.; $4\frac{2}{3}$ rods=how many feet? $2\frac{5}{8}$ miles=how many rods?

FOURTH MONTH.

Review the work in fractions already done.

Teach division of fractions. Give plenty of oral work and take up the division slowly mastering each step before another is begun.

First division of a fraction by a whole number which will exactly divide the numerator; next, division of a fraction by multiplying the denominator; division of a fraction by a fraction; division of a mixed number by a fraction, or vice versa; and finally division of a mixed number by a mixed number. In all this work give special attention to the *how;* it is not necessary at this stage that the pupil be able to explain fully all the steps he has taken—it is sufficient if he can take the steps.

FIFTH MONTH.

Finish review of common fractions. Teach how to read and write decimals. Introduce work in decimals by reviewing notation. Illustrate, if necessary, by device similar to the following:

```
| | | |9|  | |
| | |9|0|  | |  10×9
| |9|0|0|  | |  10×90 or 100×9
|9|0|0|0|  | |  10×900 or 1000×9
| |9|0|0|  | |  9000÷10
| | |9|0|  | |   900÷10
| | | |9|  | |    90÷10
| | | | |.9| |     9÷10=
| | | | |.0|9|  9/10÷10=9/100
```

Show that a decimal fraction has a numerator and a denominator, and that each of these terms is a whole number. See that the decimal point is always written. Change common fractions to decimal fractions and vice versa. Show effect of annexing ciphers or removing them from the right of a decimal.

If the class is weak in fractions, do not hesitate to amplify and continue the reviews until the pupils have mastered the topic.

There is nothing to gain and everything to lose by hasty and careless number work at this stage. Do not follow the text slavishly, but estimate the pupil's reasoning power and let that be the standard determining both grade of material and rate of progress.

See that you clearly understand fractions yourself and enthusiasm will result.

SIXTH MONTH.

Teach addition, substraction, multiplication and division of decimals. Give problems in multiplication of common fractions in which the denominator of multiplier and multiplicand is 10 or some power of 10. Then have product written as a decimal. As soon as pupils understand this work reasonably well

the rule for "pointing off" in product may be developed. Give especial attention to pointing off in division of decimals. Illustrate by process similar to those given in multiplication. Give frequent drills of this kind: 10÷.01=? 1000÷.0001=?, etc.

Especially fix in the mind the decimal equivalents of ¼, ½, ¾, ⅛, ⅓, and ⅔ to three places.

SEVENTH MONTH.

Work in decimals continued. Take up denominate numbers and drill on the tables of linear measure (omitting the furlong), square measure, cubic measure, liquid measure, dry measure, time measure and United States money. Review fractions common and decimal in connection with the exercises in denominate number, but make these problems practical; remember that in square measure, e. g., the pupil will probobly have some occasion in life to relate sq. in. and sq. ft. with each other, likewise sq. ft. and sq. yards; again he will have to handle together sq. mi., acre, and sq. rd.; but he will never have any likelihood in life of needing to reduce sq. in. to sq. rds., acres or sections. Likewise, in the table of time we often reduce sections to minutes, or days to hours, or days to weeks, or months to years, but we do not have occasion to reduce seconds to years, etc Thus in our school work we should avoid those interminable reductions of 456732 seconds to days, hours, etc.; 2 sq. mi., 3 a., 75 sq. rds. to sq. in; ¾ sq. rd. to sq. yd., sq. ft. and sq. in.

EIGHTH MONTH.

Teach reduction ascending and descending. Have some solutions in statement form and insist on correct statements; allow most the problems to be solved in ordinary business form. Insist on neatness of work on paper or board. Teach pupils to read problems correctly and give clear explanations. Review all the practical applications of fractions and denominate numbers thus far given and apply cubic measure to bin and rectangular tank measurement, figuring four-fifths of the number of cu. ft. in a bin as the number of gallons a tank will hold; buy or sell hay by weight, figuring it out the long way first, and then showing that to multiply the weight in pounds by half the price per ton and point off three places gives the same result and more quickly.

NINTH MONTH.

Review the year's work; give much oral drill; give much written drill and of great variety—at the same time remembering that these reviews problems following fractions easily slip over into puzzle problems and problems of no practical value. In the review do not omit use of denominate numbers so far as studied.

SIXTH YEAR.

General Suggestions:

The sixth year goes on with the treatment of common fractions and besides the general purpose of increasing the pupil's knowledge of them and his skill in handling them it makes the following particular advances:—

Introduces finding the Least Common Multiple.

Introduces cancellation, aliquot parts, and other short methods.

Uses larger numbers in the denominatiors.

The new work introduces further practical applications of denominate numbers, bills, the beginning of percentage, and the finding of interest on a given sum of money.

FIRST MONTH.

Drils in addition, multiplication and long and short division. Do not allow long division by any number of one digit.

Many oral problems in applying the above drills to the review of the tables of denominate numbers.

Short methods.

Multiplying by an integer ending with 0 or 0's; division by the same numbers. Apply to loads of wheat weighed and reduced to bushels.

Multiply by 50 as half that number of hundred; as, 50 x 64 is ½ of 6400 or 3200. Likewise by 25 as ¼ of the number of hundred.

Apply the multiplication and division in factoring to prime factors of the numbers involved in the tables to 12x12.

SECOND MONTH.

Reduction of fractions to lower and higher terms reviewed quickly and also reduction of mixed numbers to improper fractions.

Reduction of fractions to a common denominator, teaching factoring method of finding Least Common Multiple, and giving not too difficult denominators to handle in this way.

Continue drills in short methods of preceding months and teach multiplication by 33⅓ as taking ⅓ of that number of hundred.

Have a few minutes' drill nearly every day on rapid addition, the multiplication tables, counting by 2's, 3's, etc., from various beginnings.

Teach with the globe the fact of the earth's rotation through 15 degrees every hour and give a few examples and problems from the map or globe.

THIRD MONTH.

Continue reduction of fractions to the least common denominator and apply to addition and subtraction of fractions.

Have pupils make out carefully and neatly one or two bills each week after teacher and pupils have worked out two or three bills together.

Extend aliquot parts of 100 to 20, 16⅔, 12½, and review those of preceding months.

Keep up the drills in the fundamental operations.

FOURTH MONTH.

Thoro review of multiplication of fractions with more difficult problems than in preceding grade; apply cancellation.

Many applications of aliquot parts to tables now known and add problems similar to the following:

$2\frac{1}{2} \times 42$ is $\frac{1}{4}$ of 420 or 105. $7\frac{1}{2} \times 32$ is $\frac{3}{4}$ of 320 or 240. $3\frac{1}{3} \times 54$ is $\frac{1}{3}$ of 540 or 180. $6\frac{2}{3} \times 75$ is $\frac{2}{3}$ of 750 or 500.

Land measure; table learned; many problems in finding area in acres with dimensions (rectangular) given in rods; or finding how wide is a piece of land of a given length, containing a given number of acres.

FIFTH MONTH.

Division of fractions.

Division of a fraction by a whole number .

Division of a fraction or a whole number by a fraction.

Division of a mixed number by a fraction.

Division of a mixed number by a mixed number.

Apply to the reduction of yards or feet to rods and sq. yds. to sq. rds. Also to bin and tank measurements; as, A bin 8 ft. square must be how deep to hold 512? A tank 8 ft. by $2\frac{1}{2}$ ft. must be how deep to hold 360 gallons.

Two bills carefully written out each week and receipted.

Teach lumber measure, spend two or three days on it, then have a problem or two in its application every day for two or three weeks.

SIXTH MONTH.

Decimal fractions.

Notation and numeration thoroughly reviewed.

Reduction of a common fraction to a decimal and vice versa.

Addition and subtraction of United States money and then the addition and subtraction of other decimals.

Multiplication and division of decimals.

Apply decimals to things bought or sold by the hundred, or hundred weight, also to denominate numbers and to bin and tank measurement, substituting 8 for four-fifths and 7.5 for $7\frac{1}{2}$.

Teach finding area of right-angled triangles.

SEVENTH MONTH.

Review thoroughly common and decimal fractions and their applications to denominate numbers.

Review all the tables involved, especially linear and square measure, avoirdupois weight, liquid and dry measure, circles and degrees, time; drill in relative terms, until pupil thinks of 8 oz. as half pound, 4 oz. as quater pound, 160 rds. as half mile, and vice versa, etc.

Give much practice in the various reductions of denominate numbers, (usually, however, simply reducing from one term to next above or below. See caution of seventh month, sixth year.)

EIGHTH MONTH.

Much practice in reducing common fractions to others whose denominator is 100; percent introduced as the special name given to hundredths. Practice

in expressing per cent by common and especially by decimal fractions. Find a given per cent of certain quantities, sometimes by common fractions and sometimes by decimal. Apply to commercial discount.

NINTH MONTH.

Apply this first case of percentage to the finding of interest for one year, then for two or more years, then for ½, ¼, or other fraction of a year. Then introduce months as a fraction of a year and find interest for years and months. Finally show some standard way to figure interest and give considerable drill in its use. Continue practice with commercial discount.

Review aliquot parts and apply to percentage, first case.

SEVENTH YEAR.

This year's work continues the practical applications of the measures, especially square and cubic measures, and makes a thoro study of percentage and its common business applications. It is expected that as heretofore one-third or about that of the recitation time shall be given to oral drill, oral practice with problems whose conditions are easily pictured. It is expected too that wherever the arithmetic involves actual business operations, as taxes, insurance, commission, notes, etc., the teacher will seize the opportunity to make clear to the pupil such business operations are conducted, thus using his arithmetic as a means of understanding of the conditions under which he is to live.

FIRST MONTH.

Learn the weight of a bushel of potatoes, and of a bushel of each of the seeds and grains that are commonly handled in this state, and apply these in finding the number of bushels and value of loads of a given weight, etc.

Apply linear and square measure to measurements of land; learn the dimensions in rods of a section, a quarter, an eighty, a forty; learn to number the sections in a township, and to locate on a township map by description.

Figure areas of rectangles and right triangles and apply to pieces of land, floor areas, and to painting barns.

Much oral drill in addition, multiplication, and easy fractions.

SECOND MONTH.

Continue the use of square measure and apply it to lumber, shingling, carpeting, plastering and lathing. Talk with a practical carpenter and find how he figures these things.

Have pupils use foot rules, square, yard stick, and tape line; let them measure various rooms at home and school and make up problems illustrating these operations.

THIRD MONTH.

Apply cubic measures to excavations, wood, stone, masonry, brick, capacity of bins, capacity of rectangular tanks. Find out the price per cubic yard for excavating cellars, price of stone per cord, cost of laying the stone, and figure

out the cost of a basement, counting in excavation, stone for a wall of given thickness, cement floor. In the same way make up other problems similar to those your pupils will later meet in life.

FOURTH MONTH.

Teach number of cubic inches in a gallon and number in a bushel; number of pounds in a barrel of flour, salt, beef, or bushel of coal; weight of a cubic foot of water (62½ pounds) or of a pint of water (about one pound.)

Give many practical problem illustrating uses of these values to fix them in memory.

Have pupils solve a few problems of capacity exactly, using 321 cubic inches for a gallon and 2150.4 cubic inches for a bushel; then let them solve the same problem approximating values as in the fifth grade; compare results.

Review all weights and measures and their applications studied this year, especially any that have made your class trouble.

FIFTH MONTH.

Percentage. The important point in teaching the subject is to show that it involves nothing new but is simply a repetition of principles with which the pupil ought to be already familiar. Lead up to the subject thro the following steps:

Reduce many common fractions to equivalents whose denominator is 100; reverse the operation.

Separate the idea of per cent from dollars and cents; consider it as parts.

Teach the fractional equivalents of 50, 25, 12½, 6¼, 20, 10, 40, 60, 75, 33⅓, 16⅔ and 66⅔ per cent, and apply these per cents thru the equivalent fractions in the first case of per centage. E. g., 25% of 840 is ¼ of 840, or 210.

Thus, the first case in percentage is seen to be merely multiplying by a fraction or a decimal. Many like to find 1%, and then from that any given per cent; this is helpful where the problem is to find ½, $^3/_{10}$, and ⅝ per cent, etc., but in most other cases it seems unnecessarily long.

In all this use much oral work.

SIXTH MONTH.

Apply the first case in percentage to Commission, to Commercial Discount (first a single discount, then two or occasionally three), to Fire Insurance, and lastly to Profit and Loss and the Marking of Goods. The purpose here is not that the pupil shall become able simply to solve the problems, but that the teaching of the number side of these business operations will be a means of teaching him how the business operations are really carried on.

SEVENTH MONTH.

Teach the indirect cases of percentage and apply them to Commission and Profit and Loss.

Give the last week of the month to finding of interest for years and for years and months.

Show that the operations of percentage may be classified as follows:

Those in which we are to find a certain per cent of a number.

To find a number of which a certain per cent is given.

To find what per cent one number is of another.

Solve many simple problems, sometimes by common fractions whose denominator is 100, sometimes by decimal fractions, sometimes by common fractions representing aliquot parts.

The following problems represent one form of solution of the indirect cases:

To find the rate. This may be taught by reviewing the case in fractions where the part one number is of another is found. Thus to express what part 3 is of 4 we write $\frac{3}{4}$. The fraction may then be reduced to per cent. In finding what per cent greater or less one number is than another the process is similar. To find what per cent greater 12 is than 8, we subtract 8 from 12, then write 4-8 or 50% as the per cent which 12 is greater than 8. In expressing how much less one number is than another, the larger number is of course the denominator.

To find the number of which a certain per cent is given. This may be taught by reference to the corresponding case in fractions. If $\frac{3}{4}$ of a number is 12, the number would be found as follows:

$\frac{3}{4}$ of the number is 12.

$\frac{1}{4}$ of the number is 4.

$\frac{4}{4}$ of the number is 16.

Then similarly in percentage. It will be well to show that this is really dividing by the given rate. With per cents that do not easily reduce to fractions the process is the same; e. g., if 17% of a number is 85, one per cent is 5 and 100% is 500, the per cent sign being regarded as the denominator of the fraction.

In problems where the number given has been increased or decreased a certain per cent the process is the sam, but the rate correspond to the number given; e. g., if the number has been increased 25% it is 125% or $\frac{5}{4}$ of the original number; if it has been decreased 16 it is $\frac{84}{100}$ of the original number. Have solved a few problems illustrating this and then apply it as the other cases of percentage were applied.

EIGHTH MONTH

Teach one good method of finding interest between two dates, and apply it to interest on notes and to bank discount. The use of the cancellation method or some other simple method is suggested.

Partial payments by the United States rule (one or two payments generally, seldom over three); annual interest (no problem over four years); compound interest (never over three compoundings, as the purpose is to make clear the principle, not to provide busy-work.)

In connection with promissory notes, have the class write the notes, and learn the meaning of the terms maker, payee, indorser, for value received, or order, grace, joint and several, negotiable. Be careful in explaining negotiability; it is not true as so often stated that non-negotiable notes cannot be legally sold.

NINTH MONTH

Taxes.

Duties or Customs.

Review of the year's work.

Go to a civil government text and get the material for explaining the process of making the levy, the assessment, and computing the tax-rate, and then the tax of an individual. If possible learn the asessed valuation of your township or district, and the levy of the same year and determine the rate. Get tax notices, both from individuals and the general notice published in the papers; get tax receipts. Show that percent is not sufficiently exact, so that while figured on a percentage basis, taxes are usually rated in mills and tenths of a mill.

EIGHTH YEAR.

This year's work is to review and drill in the fundamental operations; teach the keeping of the ordinary home and farm accounts; study ratio in its common applications; learn square root and apply it to mensuration; and finally make a thoro review of the whole field of arithmetic with considerable emphasis on explanations and principles.

FIRST MONTH

Most of the class time of this month is to be devoted to drill on the fundamentals, especially addition and multiplication; apply time tests wherever possible, insist on a fair rate of speed as well as accuracy; have any pupils who are noticeably weak do some special work to bring up their speed and accuracy. For many practical suggestions especially valuable in these drills but almost as valuable all thru intermediate grade arithmetic, secure from Westland Educator Davies' Fundamental Operations in Arithmetic (15c).

Problems outside class should review percentage and its applications; present a second method of finding interest; and solve a few problems each in finding anyone of principal, interest, rate, and time, with the other three elements given.

SECOND MONTH

Bills and Accounts. Have the pupils bring in old bills from home; make out bills for goods bought at the grocery, hardware, or clothing store; for hay and feed sold; for services rendered to or by the pupils. Have the bills properly made out, and sometimes paid by check or promissory note; have the check or note made out; properly receipt the bill. Sometimes allow a discount of 2 or 3 per cent for cash and enter the discount properly in the bill.

Have the pupil keep an actual or imaginary cash account—his own cash receipts and expenditures.

Make out a double account with the grocer, on one page crediting him for goods bought from him, and on the other debiting him for all eggs, butter or potatoes, furnished him, for cash paid him, or for goods returned to him. Likewise keep an account with a potato or corn field, debiting it for every bit of labor, seed, or other expense and crediting it for every bit of produce used

or sold from it. The pupil should make out several of these bills from data furnished by the book or teacher; then he should make out several similar accounts from similar data given by his father or neighbor.

THIRD MONTH

Continue review by means of oral problems. Take up ratio, treating it mainly as one aspect of fractions and solve a few problems in simple proportion. The common reading of a proportion "a is to b as c is to d" should be discontinued, and the more correct one "the ratio of a to b equals the ratio of c to d" used, so it will emphasize the truth in ratio. By oral review identify the element of comparison in division, fractions, and ratio. Apply ratio in such problems as "Divide 60 pounds into two amounts to each others as 2 to 3." Apply this in agricultural problems such as the mixing of feeds, the mixing of eseds, etc. Solve a few problems in Simple Partnership by the same method.

Graphs are coming to be much used and here is the place to introduce a few lessons in their making and interpretation. Go to some modern text in arithmetic and get a description of the method of making one; make a few simple graphs with your pupils; and then help them interpret several of those found in their agriculture text or bulletin, or in some magazine.

Give a few problems illustrating the law of levers, such as: Two horses hitched to a doubletree, one 24 inches from the clevis, the other 20 inches, share a pull of 2640 how?

If a crowbar four ft. long is inserted under a rock, and rests on a fulcrum 6 in. from the end, what can be lifted by a 100 lb. boy at the end of the bar applying his whole weight 6 in. from end of the bar?

Involution. Teach the pupil to find the second, third, or higher power of any number and give a few samples of its application. Pupil should learn the squares of all numbers to 20, and the cubes of all numbers to 12.

FOURTH MONTH.

Square root—At first and for several days with no decimals involved. Explain by means of a figure on the board (but not necessarily requiring the pupils to give the explanation.) Apply to finding the side of a square with area given; to finding the number of rods of fence for a square field of given area.

Triangles.

Finding the hypotenuse of right angled triangle. Finding area of triangles reviewed. Apply these to fields, fencing, length of the slope of roofs, shingling, painting gable-ends, etc.

FIFTH MONTH.

Circles.

Teach the terms used, as diameter, radius, circumference, and by measuring the length of a line around a wheel, a pan, a can, and the distance across it, have the pupil determine the relation between diameter and circumference. Use 3 1-7 as the ratio generally, though have the pupils solve a few problems with the 3.1416. Teach method of finding area of circle and then apply these laws to circumference and area of bottom of milk cans, cisterns, round tanks.

A few problems similar to : What is the diameter of a circle whose area is 308 square inches?

Cylinders:

Area of base; curved surface; total surface; solid contents. Apply to capacity of milk cans, cisterns, water tanks; to lumber needed for base and sides of round tanks of given diameter and depth; to excavation needed for cisterns; capacity of round tanks of given diameter and depth; to excavation needed for cisterns; capacity of round grain bins, silos, etc.

SIXTH MONTH.

Metric system:

Have pupils measure distances with meter stick (if one is not provided, secure a ruler with metric measures on one edge, and have some boy make a meter stick); compare meter and yard, centimeter and inch; figure out kilometer (1000 meters) and find what part of a mile it is. Give oral practice in reducing cm. to inches, and km. to miles and the reverse using 1 cm.=$^2/_5$ in. and 1 km.=$^5/_8$ mi. Likewise, much practice in use of Kilogram, liter, cubic meter.

Stocks and bonds.

Trace the organization of some corporation to make clear the meaning of capital, stock certificate, assessment, dividend, common stock, preferred stock, premium, discount, par value, market value. Explain stock quotations as seen in daily papers. Solve several problems of various kinds in stocks and bonds but in the main use the problems as means of teaching how a corporation is managed.

SEVENTH MONTH.

Give review of written arithmetic to denominate numbers. In reviewing fractions teach Least Common Multiple and Highest Common Divisor, and explain carefully. Try the tests for speed and accuracy in addition, etc., and give special help to any who are weak.

EIGHTH MONTH.

Review to interest. Tables of denominate numbers should be reviewed, omitting, however, troy and apothecaries weight, and other tables pupil is unlikely ever to use. Pupils should have much practice in mental arithmetic or oral work ,and should give explanations in clear statements, though not generally in set forms of analysis.

NINTH MONTH.

Review remainder of the work covered by this Course of Study, with special emphasis on any points on which your pupils seem especially weak.

Physiology

This subject is to be taught to pupils of all grades up to and including the seventh year. The oral instruction of the first three grades must be not less than three lessons a week for ten weeks; from the fourth to the seventh grade a text book must be used for not less than four lessons a week for ten weeks. It is recommended that the classes be combined as much as possible, and that the advanced work be given in the part of the school year when the larger pupils can attend, and the oral instruction in the summer and fall when the smaller pupils are in school.

Put emphasis upon the hygienic side, especially in the lower grades, using simplest terms. Teach the good effect of wholesome food and drink, and wholesome clean living, and how the body, "the tempest of the living God," may be made in school to grow strong, robust, healthy, natural, at ease. See that the school house and surroundings re-enforce your teaching. Look to ventilation and cleanliness in the school room. Keep the lavatories or out-buildings clean. Teach the child respect for his body in every part, and in all its functions—that nothing about it is defiling unless he himself makes it so. Respect for the body is at the foundation of self-respect and true manliness.

By devoting quite thoro study to a few different topics in each year's work for the fourth, fifth and sixth grades, too frequent repetition will be avoided and the pupils will have covered the elements of the subject so as to lighten the heavier work of completing the study in the seventh year.

Recently a number of especially good texts have been published emphasizing the side of hygiene rather than physiology. Some of the texts are:

The Gulick Hygiene Series.

Hall's Intermediate Physiology and Hygiene.

Blaisdell's Series, "How to Keep Well" and "Our Bodies and How We Live."

Krohn's Graded Lessons in Hygiene.

Davison's Series, "The Human Body and Health."

We also desire to commend to teachers Dunn's Civics and Health which is adopted as one of the books for the Teachers Reading Circle for the year 1909-1910.

FIRST, SECOND AND THIRD GRADES.

Oral instruction with a text book as a guide to the teacher. Tell stories illustrating what you wish to teach, read poems, or use pictures, and get the children to re-tell the story. One method of presentation is to talk of the body as a house—our house—which is wonderfully built; with bones for framework, muscles for walls, skin for siding, the head the observatory, the

digestive organs as a hall, kitchen, pantry and dining room, the heart as an engine, the blood the housekeeper, the lungs the laundry, the nervous system as an electric system of telegraph, phonograph and burglar alarm, the larynx and vocal chords as the musical instruments, the ear as the auditorium and whispering gallery; the eyes as windows and telescopes; taste and smell as twin brother guardians. That which enters the body is company and we may welcome a royal guest; water, or good company, nutritious foods, and we may have doubled company as tea, coffee and rich foods; but we should refuse admission to such wicked company as alcoholic drinks, or to the vicious enemies —cigar and cigarette. "The King and His Wonderful Castle" by Geo. P. Brown will be found helpful in this presentation.

Cultivate good habits for health's sake. Organize a good health club, including the larger pupils of the school. Have a simple constitution and by-laws with officers. Convene the club once a week instead of the recitation to discuss and formulate rules based upon lessons immediately preceding. These rules may be adopted by vote of the members of the club, and might be such as: We should eat slowly, we should not eat too much, we should take daily exercise, and so forth.

Give attention to cleanliness of person, of habits of thought and words. To keep the school house and the school yard clean, the Good Health Club could have a department of public service in charge of an officer, and this officer, might hold his position weekly or monthly as a reward of merit or fitness.

"Mirick's Oral Lessons in Hygiene" is a text written for teachers' use. "Good Health for Girls and Boys" by Bertha M. Brown is a new book of great helpfulness, and the tacher will find Krohn's "First Book in Hygiene" full of usuable suggestions. Jewett's "Good Health" contains much material, which could be used as basis for talks. The "King and His Wonderful Castle," mentioned before, and several other books of like nature would prove helpful guides.

Suitable poems are: "Always Dinner Time," by Vawter; "Winter Apples," Whitney; "If I were a Sunbeam," Lucy Larcom; "The Captain's Well," Whittier; "The Corn Song," Whittier; "Story of Mondamin," Longfellow's Hiawatha; "Wynken, Blynken and Nod," Riley. The teacher should select others bearing on hygiene and use a poem occasionally as the basis of a physiology talk.

Suitable pictures for talks and written stories are: "Feeding Her Birds," Millet; "Milking Time," Dupre; "The Disputed Privilege," Meyer Von Bremen; "The Lone Wolf," Kowalski; "The Doll's Bath," Igler; "The Anatomy Lesson," Rembrandt; "We'll Be Men and Women Pretty Soon"; "The Foot Ball Match," Overend; with many which can be selected by the teacher.

If it is desirable to have at hand an outline, the following is suggested:

PRIMARY.

Position: Sitting and standing. Chest position. Drill and marches. Advantages of low-heeled shoes.

Playing: Necessity for children. Fairness and courtesy in games. Teach games. If possible, introduce some of the games of Sweden, Russia and Germany. Have the children learn some of the translated folk songs of these and

other peoples. If nothing better is obtainable, try Holton & Kimball's "Games, Seat Work and Sense Training Exercises."

Sleep: Necessary, time of repair.

Breathing: How air gets to the lungs. Importance of fresh air. Means of securing fresh air. Methods of ventilation. Eating. Hunger. Food of animals. Proper food for children. Quantity. Rules for eating. Teeth, their use and form. How food gets into the blood and repairs the body. Care of stomach. Drinking, thirst. Good drinks for children. Juice of ripe fruit healthful in the fruit, but not after allowed to change Harmful drinks. Danger in drinks containing alcohol.

Table Manners: Politeness. Proper use of knife and fork, spoon, napkin, etc.

Clothing: Of animals, of children. Summer and winter clothing.

Cleanliness: Soap, water and towels. Care of hair, teeth, nails, nose, feet, clothing, desk. Use of door-mat and waste-basket. Need of bathing, of clean hands and face. Uncleanliness of tobacco using. Emphasize the care of the skin.

Growth: Helps to grow. Hindrances. Use pictures and stories of old heroes and present day athletes to show benefits of a well developed body.

The Body, Head, Trunk, Limbs. Parts of the head and face. Use care of these parts. Relation of thoughts to the face. Parts of the trunk. The lungs and their use The heart and its motion. The pulse. Call attention to visible veins The blood as a carrier of food. Pure and impure blood. Parts of the arms and hands. Care of the hands. Parts and uses of the legs and feet. Dress and care of the feet.

The Bones. Different shapes for different uses. Care of the bones when young. Effect of alcohol and tobacco on growth of the bones.

The Muscles. Use. A few important muscles. Difference between muscle and fat. Effects of proper food and exercise. Effects of alcohol.

The Senses. (Aim more to train in proper care of the special senses, than to impart scientific knowledge.)

Sight. Visible parts of the eye. Tears. Care of the eyes. Danger from use of tobacco.

Hearing. The ear and what we learn by it. Satisfaction derived from agreeable sounds.

Feeling. Where the sense of touch is located. Handle objects to illustrate ability to discriminate. Tell briefly the story of Helen Kellar.

Smelling. Facts learned by smell. Other uses of the nose. Colds contracted by breathing impure air.

Taste. A guide in eating. Things that blunt the sense of taste.

The Voice. Why cultivate pleasant tones. Danger in screaming, in bad air, in tobacco smoke

The Brain and Nerves. Use protection. Need of food. Effects of alcohol and tobacco.

Grain and Alcohol. Difference between bread and beer. Starch in grain changed to sugar, sugar to alcohol—a poison.

Cigarettes. Hinder growth and healthy development. Contain nicotine and usually other harmful poisons. Attitude of employers to the cigarette habit.

FOURTH YEAR.

A text book in the hands of the pupils. A good up-to-date book should be used.

If possible combine grades. Have all grades together on all parts of this work which may be taken as general exercises. Special topics may be, Microbes and Disease, Relation of Cleanliness to Microbes, Animals and Alcohol, Tobacco and Pure Air, Dangers to the Eyesight, The Lungs and Good Health. Give attention to infectious diseases—diphtheria, scarlet fever, pneumonia, typhoid fever, tuberculosis, and means of disinfection. Enlist the co-operation of the local physician. The State Board of Health furnishes some material on Tuberculosis. Get the pupils to take pride in being active, strong, healtful and clean. Inculcate a liking for pure, fresh air. Suitable outdoor games should be encouraged, such as basketball, handball, etc. Turning poles and other gymnastic apparatus can usually be easily procured or erected by the pupils.

FIRST MONTH.

Foods. Why we eat, food preparation, kinds, forming tastes for healthful foods in childhood. Materials which furnish food. Animal food. Value of milk. Use and purpose of butter, cheese, eggs Meats, different kinds, value f each kind. Effect of too much meat. Vegetable food. Bread, whole wheat brand. Corn as a food Potatoes, and other garden vegetables. Fruits, nuts.

SECOND MONTH.

Drinks. Water, Nature's beverage. Causes of impurity of water. How fruit juices are made unhealthful. Tea, coffee and cocoa. Self control in eating and drinking.

False Appetites. Alcohol, its relation to disease, to habit, to the mind. Power to weaken self-control. Special danger in cider and wine.

The Commercial Weed,—tobacco. Why is tobacco used. Deceitfulness of these supposed reasons. Effect on the young. Tobacco and athletics. The cigarette dangerous

THIRD MONTH.

The Framework. Many pieces, different shapes of bones, and how held together. Effect of tight clothing, of ill-fitting shoes.

The Muscles. How they move bones. Sizes and shapes. Beer tends to form fat instead of muscle and strength. Why business men choose boys who do not use tobacco.

Exercise. Good forms of indoor and outdoor exercise; why the latter is preferable. Effects of alcohol and tobacco on ability to study, on will to do right, and on success in life.

FIFTH YEAR.

There are several good texts. (Be sure and use a book which is not too difficult or technical.

Some very interesting material may be furnished the class in methods of disposing of ashes, garbage and rubbish, and, especially in towns, the cleaning of the streets. The relation of life and health to stagnant water, unclean cellars, and disease causing germs is of interest to both country and city children. Consider the water supply for drinking purposes, and the treatment of water to avoid disease germs. If possible conduct simple tests of drinking water. Teach simple elements of what to do in case of emergency.

FIRST MONTH.

Digestion. Two sets of teeth, kinds of teeth, toothpicks and tooth brushes. The palate and aesophagus. Change of food in stomach and intestines. How food reaches the muscles and is used by them.

The Blood. Appearance, its three parts, work of each part. Clotting Blood-vessels. Distribution of food and removal of waste.

SECOND MONTH.

The Heart. Auricles, Ventricles, valves, number of beats, strengthened by exercise. Effects of sudden fright, of alcohol and tobacco

Circulation. Process of circulation. Capillaries. Location of arteries. Wounds, method of checking bleeding. Massage

THIRD MONTH

Respiration. Need of air in the blood, where connection is made. Importance of breathing through the nose. Development of the lungs. Change of air in the lungs. Simple methods of ventilation. Why and how to avoid dust.

Alcohol and Narcotics. Fermentation. Definition of a poison. Nature of a narcotic. Nicotine in tobacco. Danger in soothing syrup and other patent medicines

SIXTH YEAR.

Texts as in the fifth grade.

On alcohol and narcotics a more inclusive view may be obtained by considering topics like: Tobacco and national vigor, good business and alcohol, city health and alcohol, athletics and alcohol.

The class will enjoy as supplemental work the consideration of such subjects as: Preventable diseases, food inspection, discovery of disease microbes, safeguards against epidemics, treatment of hydrophobia, antitoxine and the treatment of diphtheria, vaccination, treatment of tuberculosis ,the mosquito and malaria, the house fly and typhoid fever, quarantine, the hospital and its work. These topics are treated in Jewett's Town and City.

FIRST MONTH.

Excretion. Definition, organs; and their work. How waste is removed by way of the lungs. Sweat glands, necessity of bathing. Benefit of regular habits.

Special Senses. Organs, functions, hygiene. Strengthening the special senses.

Sight. The eye,its care. Danger of eye strain by artificial light in the house, by reading at twilight and when lying down. Headache from eye strain. When use glasses. Care after measles, etc.

SECOND MONTH.

Hearing. External and internal ear. Delicacy of inner ear. Deafness caused by a cold.

Smell. Location of this sense. Use of the sense of smell.

Taste. Location of this sense. Pleasure derived from this sense

THIRD MONTH.

Touch. Sense widely distributed. Effect of burns. Cause of numbness.

The Voice. Location and structure of the vocal organs Proper use of the voice. Effect of dust. Treatment in emergencies.

The Nervous System. Organs, functions, hygiene. Sleep; necessity, times and amount at different ages Fatigue, recreations.

SEVENTH YEAR.

Text Books: Any good text. Do not make the mistake of trying to use a too difficult book.

Make a thorough study of a good text to complete the subject in its lementary phases. Give attention still to hygiene. More attention to the special senses and their case. Effects of alcohol treated in a frank, scientic manner. Tobacco the same—both are powerful deterents from physical life and tend to dull the moral sense. Review topics on narcotics in sixth grade.

OUTLINE.

Nutrition. What it includes—composition, digestion, and assimilation.

Foods. Definition of a food. Different classes and what each gives the body. Healthful and unhealthful foods.

Digestive System. The alimentary canal: parts, structure, and processes; glands, and secretions. Amount of food, in what ways varies, reasons for cooking, need of careful mastication. Digestion, absorption, assimilation, and oxidation defined.

Excretion. Organs that remove waste: skin, lungs, kidneys, liver and large intestines. Importance of the kidneys and the liver. How affected by alcoholic drinks.

The Skin. Layers and cells; glands, hair, nails. Bathing, effects of alcohol and tobacco on sense perceptions.

The Framework. Skeleton. Shape and structure of bones. Parts of the skeleton. The joints, cartilage; periosteum. Fractures and sprains. Effect of proper and improper positions

The Muscles. Purpose, number and shapes. Voluntary and involuntary. Tendons.

Exercise and Rest. Athletics, use and abuse. Effects of alcohol.

Circulation. The blood, composition and use of the parts. Quantity. Arteries, capillaries and viens. Arteral and venous blood. The heart and its parts Rate of heart beats, and the pulse. Wounds, fainting. "Tobacco heart." The lymphatic system. The lymph and its work, dropsy. The portal circulation. Massage. Effect of alcohol.

Respiration. Why we breathe. How we breathe. Inspiration and expiration, Air passages; nasal, pharyn, vocal cords, treachea, bronchi, cilia, pulmonary circulation. The diaphragm and chest walls. Lung capacity. Coughing, yawning and sneezing. The voice how produced, and training. Ventilation and cleanliness of the room. Causes of pulmonary diseases. Effects of alcohol and narcotics.

The Nervous System. Parts of the system. The brain: its divisions and work. The spinal cord. Nerves and nerve fibres. The sympathetic nervous system. Reflex action. Habit. Dreams. Causes of headaches. Sleep and rest. Narcotics and the nervous system. Dangers in moderate use.

Special Senses. General sensation. Tactile and temperature senses. Sense of position.

The Eye. Cornea, lens, retina, aqueous and vitreous humors, optic nerve, Tears. Defects of vision. Care of the eyes. The ear. Drum, bones and canals, care of the ears Defective hearing. Taste. Location and purpose. Smell. Location and purpose. Sense of touch widely distributed but varying in acuteness. Effects of alcohol and narcotics upon the special senses. Review care of the teeth, nails and hair; also what to do in emergencies, and the elements of public sanitation.

Study the work of the boards of health. Ways of infection in contagious diseases. Prevention and cure of tuberculosis, securing material furnished by the State Board of Health. Connect the hygienic side of physiology with both the personal and civic life of the pupil.

Tuberculosis and Its Prevention

The following discussions on Tuberculosis and its Prevention, one issued by the Massachusetts Board of Education and the other by the Committee of the Associate Charities, Washington, are published in connection with the course on Physiolcgy at the suggestion of Dr. Fanny Dunn Quain, Chairman of the Committee on the Prevention of Tuberculosis, of the State Federation of Women's Clubs.

These discussions are so simple and yet so timely that we are glad of an opportunity to give the teachers and pupils in North Dakota may be enlisted in the world-wide battle against this dreaded enemy of the human race.

E. J. TAYLOR, State Superintendent.

Tuberculosis and its Prevention.

1. Tuberculosis is a disease caused by a very small germ or microbe called the tubercle bacillus. This is so small that it takes three thousand put end to end to measure one inch. This germ does not readily grow outside of living bodies, but when it gains entrance into the body it grows and multiplies, and finally destroys the tissues, and thus causes the disease tuberculosis.

2. Tuberculosis is a very old disease. Indeed, in the old Egyptian mummies evidences of tuberculosis have been discovered; and the famous writes of the old days, whose writings are still in exitsence, described this strange condition, in which their patients developed a cough and gradually wasted away. The disease was known then, as it is now, as the "Great White Plague." There was not much which they could do for it. A few of the wiser doctors advised their patients to go to the mountains or to take a sea trip, although they could not explain why this should be beneficial.

3. While consumption, then, is curable, it is still a very prevalent disease and is causing incalculable suffering and loss, chiefly because it is greatly neglected. It has been found that of all people who die every year, about one-seventh die from consumption. When we consider the terrible carnage in the destructive battles in the eighteenth century we are rightly shocked, and yet during that same period nearly twice at many died from tuberculosis. In this century, during the four years of the civil war there were killed some one hundred and fifty thousand men, which causes one to realize the terrible nature of war; and yet every year in the United States there are more than one hundred and fifty thousand people destroyed by this one preventable disease—consumption. The combined sum of all those who die of typhoid fever, appendicitis, scarlet fever, measles, diphtheria and cancer does not begin to equal the number that die from consumption alone. Such comparisons as these bring to a realizing sense of the part played by consumption in producing misery and suffering in the world.

4. When the germ of consumption attacks any person, it gets into his lungs and there grows and multiplies. As the disease becomes active a cough develops, and the person afflicted raises a certain amount of sputum. In this

sputum are an innumerable number of the tuberculosis germs, which, if they are inhaled by people run down or otherwise in a poor condition to resist disease, may cause the disease in them also. This sputum must be destroyed in every case. If all sputum from consumptives were destroyed consumption would soon die out. The disease is spread by carelessness or ignorance on the part of the consumptives, who do not realize that every time they fail to destroy the sputum, or spit on the floor or on the sidewalk, it will dry, be ground up into a powder, fly through the air as dust, and be inhaled by some person who is in a condition to receive the disease, and so cause the disease in him. It has been calculated that in the sputum of one consumptive in the course of twenty-four hours there may be more than twenty-four million of these germs.

5. Tuberculosis is not hereditary; it is the tendency which is inherited, but not the disease itself. In other words, consumptive parents may have children who are naturally of a poor constitution, with weak lungs, flat chests, and little or no power to resist infection. Children in such families should be brought up with the utmost care, and should be given the maximum amount of fresh air and sunlight. The training of their minds should be sacrificed, if need be, in order that their bodies may be developed to the highest possible standard of health. It is for such children as these that there have been founded in Germany the so-called "forest schools," where the children of tuberculous parents and all those children who are weak and run down and liable to contract this disease are sent. There they go to school practically out of doors, and are trained in the best habits of hygiene and proper living. Such a school as this has recently been opened in Providence, R. I., and others are planned for this State.

6. The treatment of consumption first of all is by so living that the body does not acquire the disease; therefore, the ideal method of treatment is by prevention. This, however, is not possible in every case, and there are unfortunately a great many people, as has been shown, who have this disease, for whom active measures in curing it or stopping its progress must be taken. Treatment is not by means of drugs or medicines. Especially one should avoid patent medicines and advertised cures of all kinds. Treatment consists in giving the patient fresh air day and night, proper food at the proper time, and rest. This is done either in the home or in instiutions built for this purpose, called tuberculosis sanatoria. Massachusetts was the first state in this country to have a State Sanatorium. The Massachusetts State Sanatorium is a large institution, which holds three hundred and fifty patients, situated in the center of the State, in Rutland. Here patients in the early stage of consumption, which is the curable stage, are taught how to live out of doors in comfort; how to sleep out of doors at night, or in open-air wards or rooms winter and summer; what food they must eat; the amount of exercise or rest they must take; and the precautions they must use in caring for their sputum, to avoid giving this disease. Such sanatoria exist in most civilized countries today, and more are being established every year. The average length of stay is six months to a year. From sixty to seventy per cent. of those in the early stage of the disease leave the sanatorium at the end of this time apparently cured.

7. It is important that teachers should realize that the earliest sign of consumption is not necessarily the so-called hacking cough, hemorrhage from the lungs, or the presence of night sweats and fever. These frequently do not appear until compartively late in the disease. The earliest signs, in children especially, are those of failing health, from whatever cause. In the first place the teacher should be told or should find out what children in the class have consumption in their family, and should give special attention to these children. Loss of appetite, weakness, languor, listlessness, are among the early signs. Pallor, marked anaemia, loss of weight, excessive emaciation, the presence of enlarged glands in the neck, are indications that there is something wrong. If in addition to this there is a cough, with or without sputum, the child should most certainly be examined by a physician.

8. The campaign against tuberculosis in Massachusetts is along two lines; first, that which is being done by sanatoria and hospitals; second, that which is being done outside of these instittuions by physicians, boards of health, anti-tuberculosis associations, etc., in teaching people how to live in their own homes.

One of the most efficient means of instructing the public, and school children as well, in regard to tuberculosis, is by means of the traveling tuberculosis exhibit which goes from city to city throughout the State. It is very important that when this exhibit appears arrangements should be made by which teachers and schol children of all grades should attend, and receive definite instruction as to what the various charts, photographs, models, etc., mean. Such an exhibit will be found an object lesson of very great importance and a means of emphasizing the points which have been given in previous intsruction in the schools.

9. The following books, or most of them, can be found in the public libraries, in the traveling library of the Massachusetts Federation of Women's Clubs, or should be provided by the local anti-tuberculosis association, and some at least should be provided by the school committees for the use of the teachers. Further information can be obtained at any time by applying to the Massachusetts Commission on Hospitals for Consumptives, 309 Ford Building, Boston, or to the Boston Association for Relief and Control of Tuberculosis, 4 Joy Street, Boston. In almost every case local physicians can give additional information.

LIST OF BOOKS.

"Tuberculosis as a Disease of the Masses, and how to combat it," by Dr. S. A. Knopf. (This can be obtaned from "Charities and the Commons," 105 East 22d Street, New York, at 25 cents a copy.)

"The Cause and Prevention of Consumption," a circular issued by the Illinois State Board of Health.

"Consumption and Civilization," by John B. Huber, a large book, going into very minute details on this subject. (It can probably be found in the public libraries, and can be bought at any large book store.)

"The Prevention and Cure of Tuberculosis," a collection of articles of a popular character on the subject of tuberculosis, by the leading men on this subject in this country; compiled by Joseph R. Long; published by H. M.

Brinker, Denver. This is an excellent series of essays, covering the whole ground very completely, and can be secured by any bookseller.

Pamphlet of information on the subject of tuberculosis, issued by the Boston Association for Relief and Control of Tuberculosis, which can be obtained on application at the office of the Association at a nominal price.

Several school text books on physiology and hygiene contain valuable chapters on tuberculosis. Information concerning these may be obtained from the publishers.

SIMPLE LESSONS ON CONSUMPTION.

PART 1.

THE NATURE OF CONSUMPTION.

What is Tuberculosis or Consumption Tuberculosis and consumption are two names for one disease. The disease is caused by the growth and multiplication of a minute plant in the body of a person or an animal. The minute plant is called a bacillus, and is so small that it must be magnified several hundred times before it can be seen; it is spoken of as the tubercle bacillus or consumptive germ.

What Parts of the Body Does Consumption Affect? Though consumption affects the lungs more commonly than other parts of the body, it may effect any part of it, such as the liver, the intestine, the lymph glands, the bones, the skin, the eye, the coverings of the brain, etc.

Why is Tuberculosis of the Lungs Especially Dangerous to Others? Tubercle in the lungs soften and break down after a while and the material of which they are composed is coughed up into the mouth. This material often contains millions of tubercle bacilli and is therefore very dangerous.

How Are Tubercle or Consumption Germs Scattered by Persons? Tubercle bacilli, or consumption germs, are commonly present in large numbers in the material coughed up by persons who have tuberculosis of the lungs or throat. They are also present in the mouths of such persons and in the little drops of fluid sprinkled from their mouths and noses during coughing, sneezing and talking. Hence it is through the material that leaves the mouths and noses of consumptive persons that tubercle bacilli are scattered.

How are Tubercle Bacilli, or Consumption Germs, Scattered by Animals? The germs of consumption may be present in meat when it is obtained from tuberculous animals, but the most frequent way in which the germs of consumption from animals reach persons is in milk, cream, ice cream, butter and cheese from tuberculous cows.

Pasteurization of Milk. Heating milk a short time just hot enough to kill the disease germs it may contain is known as Pasteurizing it. Milk boils at about 212 degrees Fahrenheit, or the temperature at which water boils. To kill the disease germs that are of more common occurance in milk, it should be heated to 140 degrees F. for 20 minutes or to 150 degrees F. for 10 minutes. Pasteurized milk and also scalded milk should be cooled quickly and *should be kept cold and covered until it is used.*

Large Number of Victims of Tuberculosis.. It is estimated that over 150,000 people die of consumption every year in the United States; so that, unless the existing conditions are improved, 8 millions of the people now living in our country are destined to die of consumption. The disease affects the old and the young and is particularly deadly between the ages of 15 and 40 years, which is the period of greatest vigor and usefulness.

What is the Character of Tuberculosis or Consumption? Tuberculosis is usually an insidious, slow disease, which may be in the body a long time before it causes a noticeable change from health. Later on it causes general weakening, loss of appetite, a more or less severe cough, bleeding from the lungs, loss of flesh, and other conditions by which it is easily recognized.

What are the Early Symptoms of Consumption? Among the early symptoms of consumption the following may be named: short periods of fever that repeat themselves daily, especially in the afternoon and evening; unusually quickening of the pulse after slight exertion; loss of weight and strength; lack of appetite or otherwise disturbed digestion, for which no satisfactory explanation can be found, etc.

Consumption is Not Inherited. Consumption is not inherited, and large families of children of consumptive parents may pass through life without the slightest trace of the disease.

Witohut the Tubercle Bacillus There Can Be No Consumption? Consumption cannot develop unless the tubercle bacillus, or consumption germ, enters the body. It is therefore of the greatest importance to destroy the sputum of consumptive persons and to avoid the use of dairy products from consumptive cows.

PART II.

CONDITIONS THAT FAVOR THE DEVELOPMENT OF CONSUMPTION.

Disease germs, like the seed a farmer plants, need a suitable and favorable conditions for their growth, and there are no germs of which this is more certainly true than those of tuberculosis.

The Value of Pure Air and the Need of Proper Ventilation. An abundant supply of pure, fresh air is the most powerful natural agent for the prevention of consumption among those who are free from the disease and for the cure of those who are affected with it.

How Should a Room be Ventilated? When the windows of a room are opened the *stale air passes out above and the fresh air in below;* hence, to secure proper ventilation, the windows should be open both from above and below. On a calm, cool day, when there seems to be no current of air, the direction in which the air moves in a room can be shown by holding a candle before an open window or door; when the candle is held low down the flame will point into the room, and when held up high it will point out. This simple experiment shows that we should have openings high up as well as low down in our rooms to secure a constantly incoming supply of pure air and to provide a passage for the outgoing stale air.

Lack of Plain, Nourishing Food. Poorly cooked and otherwise unwholesome food causes various troubles of the digestion through which the natural power of the body to prevent the growth and multiplication of the tubercle bacillus and other germs within it is greatly weakened and otfen wholly destroyed.

The education of a girl is incomplete until she has learned to cook plain, platable dishes.

Food and Air. There is a close relationship between food and air. The best food, perfectly prepared, frequently cannot be digested in quantities sufficient for the preservation of health unless a sufficient amount of pure air is breathed.

Lackof Cleanliness. Cleanliness of the body, of clothing, of habitation, of food and of everything with which we come in contact, is an important means of protection against tuberculosis and other infectious diseases. No better hiding places can be found for tubercle bacilli and other disease germs than dirt and rubbish.

The use of soap destroys many disease germs and removes many more than it destroys and thus makes them harmless. One of the relatively few things in which persons differ from the lower animals is the use of soap. *Soap is an* emblem of *civilization.*

Lack of Outdoor Exercise. Lack of outdoor exercise affects mainly people who, from necessity, live much indoors. The clerk, the lawyer, the merchant and the mechanic, as well as the teacher and the scholar, spend many hours in rooms where the air may become stale and impure; hence, such persons should take daily walks in the open air and should, if possible, make frequent excursions into the country.

Loss of Sleep.. Sufficient sleep is as necessary for the maintenance of health as wholesome food and pure air.

One-third of our lives is spent in bed; hence the importance of proper bed rooms.

Carriage of the Body. The normal position of the body is erect; the head should be carried high, with its weight supported on the backbone.

A stooped position, a curved back, an open mouth and a hanging chin are conditions that favor the development of consumption.

Cramping the chest by stooped walking or by sitting in a stooped position prevents the lung from expanding as fully as it should, and under this condition the blood does not receive an abundant supply of air.

It is a good practice to inflate the lungs fully several times each day by taking deep breaths in the open air.

Colds, Catarrhs, and Other Disorders. We are all liable at times to become affected with coughs, colds, catarrhs and other disorders, which may help the tubercle bacillus to enter our bodies and cause consumption. Hence these little disorders should not be neglected or treated as unimportant. While they continue they have a similar relation to our bodies that an unguarded, open door bears to a strong house. The longer the door is open the more time a thief has

to enter, and the longer the little disorders remain the more time the tubercle bacillus, which under normal conditions would often be unable to harm us, has to get in.

House Dust. When house dust contains tubercle bacilli or other disease germs they may remain alive and dangerous many months, because they are shielded from direct sunlight. But this is not the only reason why house dust favors the development of consumption and other diseases.

We should therefore attempt to avoid dust, and house dust especially, as much as possible, and to do so we should have no unnecessary draperies and hangings and no nailed-down carpets, etc. Bare floors and rugs are more hygienic than nailed-down carpets.

Carpets and rugs should be swept with a carpet-sweeper *and not with a hard broom*, and bare floors should be swept with a soft broom or wiped with a moist cloth. Dusting with dry cloths, brushes, and feather dusters stirs up dust, and the more dust is stirred up in a house the more dangerous it is. Removing dust with a damp cloth is more hygienic.

During sweeping the windows of a room should be lowered from the top down and kept closed at the bottom. Windows open at the bottom let air blow in and out, and therefore cause the dust that rises during sweeping to be blown farther into the house and not out of it.

Habitual Indulgence in Alcoholic Drinks. The habitual use of alcoholic drinks, even in moderate quantities, is regarded by high medical authorities as a condition that favors the development of consumption. Excessive indulgence in alcoholic drinks so strongly favors the development of consumption that few habitual drunkards escape the disease.

Vicious Habits. Vicious habits, among which the use of tobacco by growing boys may be included, rob the body of strength and prepare it for the growth of the tubercle bacillus and the development of consumption.

Viciousness and intemperance are the constant aids to ill health, and disease is mostly the fine we pay for living improper lives and neglecting the laws of health.

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Course of Study in Manual Training for the Rural Schools

The manual training work as scheduled begins with the sixth grade. Pupils from lower grades may be given the work if physically able to use the tools. Such pupils will be given credit for work accomplished. The work in all cases must be definitely progressive in order to receive credit.

The grading of all work shall be on the basis of power to apply the lessons of the school shop to the practical problems of farm or industrial life as shown by the work done in school and such questions as may be asked, rather than upon the mere size of utility of projects done in school.

The amount of time devoted to this work should be for the sixth, seventh and eighth grade forty-five minutes each day; for first year high school, ninety minutes each day. Time for learning to make sketches where this is but an incident of the shop work may be taken from the shop period, and will be credited as shop work.

The central idea of the course is to make the pupil independent of personal help as soon as possible, and fix the habit of gaining information from books and periodicals so that should the pupil leave school before completing the course he will continue his studies and be pretty certain of making good in any line of industrial work that he may choose.

The school and scarcely less important feature is the arranging of the work in such definitely progressive stpes that the pupil will always see something worth striving for just ahead and thus be kept in school for a much longer time than when the course includes a large variety of work each term to be reviewed and re-reviewed in successive terms. It is therefore imperitive that the work be treated as a definite course having well related principles to be developed in their logical order.

SIXTH GRADE.

The pupils of the sixth grade should learn as the basis of the work to follow: The nature of a true surface and how to produce it; How to lay off spaces and draw lines with both pencil and knife.

Pieces should be properly fitted for making simple butt joints to be held by nails or screws. The common uses of nails and screws should be studied. Pupils should be taught to apply this knowledge by considering such problems as leveling a piece of ground, building a fence, making a shelf, etc.

The tools used should include pocket rule, planes, trysquares, gauge, knife, pencil, backsaw, hammer, bits, bit-brace, screwdriver, brace and brush for applying finish.

The materials used should include at least two kinds of wood common to local lumber yards; nails, screws, stains, sandpaper, shellac and wax.

Pupils completing the work of the sixth grade should be able to assist in industrial work about the home by using hammer and nails, sawing boards, for rough work, planing, boring holes. They should have gained the mechanical sense to an extent sufficient to be of real service in assisting in the mechanical work about the farm. They should be able to read simple outline drawings and to understand printed directions for doing mechanical work, such as are to be found in their text book and in periodicals for boys.

SEVENTH GRADE.

The pupils of the seventh grade should apply the priciples learned in the sixth grade to larger problems. This should include the working of a larger variety, tapering, rounding and simple whittleing as in making the round or bored joint.

In this grade the uniting of several pieces into a framwork by square butt joints should be thoroly taught. Surfaces should be smoothed and finished in first class shape. The mastery of the simple problems of joinery should be demonstrated by accurately squared edges, well shaped corners close-fitting joints worked to definite lines.

In addition to the tools of the sixth grade the seventh grade should use the larger saws, a larger variety of bits, nails and screws. They should also learn to use the scraper in smoothing surfaces to be polished by use of shellac or varnish and pumice stone.

Pupils completing the work of this grade should be able to demonstrate their knowledge about the home by doing simple repair work requiring nails, screws, or glue; by planning and executing simple projects requiring accurate measuring, sawing, planing and joining. They should be able to work pieces of wood straight, tapered or rounded as sometimes required in machinery repairs. They should know the names of tools, materials and proceses sufficiently to understand directions and be thoroly helpful to a skilled mechanic.

They should be able to read simple drawings, make pencil sketches and make out small lists of materials. They should be able to work from printed directions and should be able to tell of their work in well expressed written language.

EIGHTH GRADE.

The work of the eighth grade should include working simple angles, more complicated uses of screws and nails; the producing of first class surfaces and the finishing of hard wods. They should learn how to lay out and make simple rightangled mortise and tenon joints; should learn to use the chisels and be able to keep edge tools in proper condition. They may not learn to lay out large projects such as complicated pieces of furniture, materials for buildings, compound angles, etc., but should be able to work such pieces properly after being laid out.

They should be able to plane exactly to a line and saw rough material for building accurately to pencil line. They should be able to read drawings and make out bills of materials of simple projects. They should be able to follow printed directions, to describe both orally and in written method of work and

make use of books and periodicals in gaining definite assistance in mechanical work. In short, they should be able to work successfully under the directions of a competent mechanic.

FIRST YEAR HIGH SCHOOL

(SMALL SCHOOLS ONLY.)

The pupil should be able to lay out simple angles by use of framing square, and make projects in cabinet work in a first class manner demonstrating a definite knowledge of the principle involved. They should be able to read working drawings of the larger pieces of furnture or of other small projects and should be able to make pencil sketches of all obejcts that they may make.

They should know the uses and common grades of commercial woods of the local yards and understand the chief methods of sawing to produce the various grades and kinds of commercial lumber and should have some knowledge of commercial foreign woods.

They should be able to plan out, make working sketches and do all selecting of materials and do all work required in common projects and repairing of wooden structures of farm equipments; should be able to make boxes, bins, put up shelving and similar projects in a thoroly workmanlike manenr.

In case the work is being taught for the first year to these pupils, there having been no opportunity for them to complete the work of the grades, the standard for the eighth grade may be substiuted for these requirements for first year high school.

Domestic Science

DOMESTIC ART COURSE FOR COMMON SCHOOLS

(Prepared by Clara Orton Smith, State Normal-Industrial School, Ellendale, Nor. Dak. Under direction of President Kern.)

Due to an overcrowded course of study a great deal of time cannot be used for Domestic Art. In many schools the teacher will be able to spend perhaps one-half of a day each week for this work but she should plan, in all cases, to give at least one-quarter of a day per week. Due to the very limited amount of time the teacher should not plan to have her pupils complete a great many articles. The aim of the work in sewing should be to teach the elementary principles of hand sewing, to train the hand toward accurate, caretaking execution, to train the eye and mind to a discriminating appreciation of that which is true and good. The work in sewing should be accomplished by elementary talks and investigations relating to the textiles fibers, their growth and manufacture. These talks should include the study of the growth of cotton, flax, wood and silk; spinning and weaving, in pioneer days in America and in the factories of the present time. Compare the home life of that former period and of today, as influenced by the transition of the textile industry from home to factory. The teacher may read to her class while they work, having selected stories which treat of these subjects from story books, histories, nature study books and magazines. Sewing should not be given as a subject compelte and entire in itself, but it should be carefully correlated with the other branches of the course of study, such as, Arithmetic, in measuring, and computing costs; spelling of all new terms; history of textile and sewing industry; nature study in study of the textiles.

Equipment:

Each pupil should be provided with a thimble, assorted needles, pins, medium sized white cotton thread, scissors and tape measure. In some cases it will seem advisable that the school install these articles in each school house, as permanent equipment; while in other places each child should furnish her own things. In either case each child should have her own things to be cared for throughout the year, and to be returned entire and unharmed at the close of the year.

If the school be far from town it will be necessary for the teacher to select all materials that are to be used in class exercise. She should then apportion the cost among the pupils. Successful sewing lessons may be carried on for

two or three cents per lesson. The use, wearing qualities, suitability and price of aach material used should be discussed. For instance, when making underwear, the teacher should compare the cost, desirability and suitability of bleached and unbleached muslin, long cloth, cambric, nainsook, linen and dimity. Samples of each material should be compared, so that the children will know the characteristics of each material.

The following outline is given merely as a suggestion to all teachers, but each teacher must alter it to comform to the peculiar limitations of her own school and the needs of her own pupils. The articles should always be of a useful nature. Samples or models should only be made when it seems necessary to practice on some new or difficult stitch. More interest is always manifested in making something for a specific use. .Every exercise should be so introduced to the class that it will develop accuracy and care taking powers. Wherever it is at all possible the article should be cut out by the child herself either from measurements or from a pattern. New stitches should be explained and illustrated on the black board and should best be practiced on soft muslin, with red or blue thread, before using it on any garment or article.

The following plan may be followed for pupils in the fourth, fifth, sixth and seventh grades:

1. *Work bag*: This bag is made to carry the work to and from school.

Material: 15 inches of silkoline, one yard wide, 2½ yards of ribbon or tape for a draw-string.

Method: This bag should be put together to make a simple, stright bag with a 1½ inch heading and ½ inch casing for the draw-string and with a small button hole at each end to draw the string through. Basting, hemming, combination, and back stitch should all be used in this exercise.

2. *Pin Cusion*: This cushiom should be about 3 inches square when completed.

Material:Turn the inner case use a very soft unbleached muslin, cut 3½ x 6½ inches.

Method: Turn the edges in ¼ inch and overhand the edges on two sides together, leaving one side open to fill. For filling use, sawdust, bran, wool or rice, which ever may be procured most cheaply. For outer covering pupils may bring pieces of pretty silk or other material from home. Overhanding is the only new stitch employed in this article.

3. *Needle-book*: This is made to complete the furnishing of the work-bag.

Material: Light weight card board, 3 x 4 inches. Silk for cover 3½ x 4½ inches. Flannel for leaves 2½ x 3½ inches.

Method: Bend card board in center, but do not break. Cover one side with silk and turn edges over the edge of the card board. Hem the inner cover to the inside of book about ⅛ inch from the edge—thus allowing the narrow rim of the outer covering to show ⅛ inch. Notch flannel and sew to center of the book.

4. *Small sewing apron*: To be made to fit the child who makes it and long enough to reach the knees.

Material. About ⅔ yards of dimity.

Method: Cut long enough to reach the knees, allowing for hem and about

22 inches wide. Each side of apron should have a ½ inch hem and those should be a two or three inch hem at the bottom. May be made to button or tie.

5. *Darning.* Pupils should be asked to bring a stocking from home that contains small holes.

Material: Darning cotton, darning needles, card board to work over.

Method: Use the simple weaving of warp and worf threads and work on the wrong side of stocking.

6. *Patching*:

7. *Mending of torn places in clothing*:

8. *Flannel underskirt*: Made to fit the child who makes it.

If there is time for other garments, the teacher should choose those which to her seem most suitable.

Eighth grade pupils may be taught to make the same things if they have not already completed this course. Otherwise they should be given some more advanced hand work—simple pieces of fany work may be introduced; including hemstitching, catch-stitching, fagotting, french knots, etc.

Teachers will find the following books helpful in teaching sewing:

"Goodwins Court in Sewing" by Emma E. Goodwin.

Book-I.-II.-III.

Music

GRADE I. FIRST HALF OF YEAR

Teach from fifteen to twenty rote songs. See Manual.

SECTION I.

Use daily voice drills, using syllables loo-moo-koo, etc. The rote song may thus be sung to improve quality of tone.

At the end of the ,first half year the teacher should learn who of her students sing in a monotone, and should place them during the singing period in front of and between the best singers. Urge them to listen to all the sounds they hear; for example, bells, whitles, bird songs, etc., and try to imitate them. Play games. Blindfold a monotone and let one of his class sing a phrase of a rote song and see if he can tell who sang it. Let him sing a phrase of a rote song and see if he can tell who sang it. Let him also learn to recognize the speaking voice. Strike different substances and let him tell what you struck.

Give constant attention to the training of the ear, for this is the time they must be cured of their monotonous usinging.

LAST HALF OF FIRST YEAR

Review and continue rote songs. Begin active drill work to develop sense of rhythm. Teach any bright strongly accented song in 2-4 time as a rote song. When learning to divide school in two divisions, have one sing the song while the other half say "Loud, soft; loud, soft; loud, soft; etc. Then let them make rhythmical motions in the air, thus:

The larger circle on the accented part of the measure. Then send four or five to the board and let them make the circles rather large on the board in rhythm to the singing. The teacher may be obliged to hold their hands and help them. Continue until all can make circles without any jerky or irregular movements. Use other songs in 2-4 time, then songs in 3-4 time, using the words loud, soft, soft; loud, soft, soft for the measure names in 3-4 time. Use many action and game songs to develop the sense of rhythm.

Increase difficulty of rote songs during the year teach them forty to forty-five songs, several of these should be scale songs. See Manual Section IV for ear training in two part music.

SECOND YEAR

Review rote songs and continue rote songs.

Central thought. Tone Relationship, See Manual Section II.

Continue memorizing the syllables of songs but of more difficult songs than were used in the first year. See last part of Section 11 in manual.

Written work and ear drill. Write scale on staff, the teacher placing the sharps of flats.

Write what teacher sings, as 1, 2, 3, 2, 1, etc., teacher sings them with loo.

THIRD YEAR

Central Thought—Ease in reciting music from printed page—Enunciation in singing.

Two part rhythm according to Manual Sec .3. First part.

Review rote songs; teach new ones. Give continued attention to enunciation, with special reference to initial and final consonants.

Teach three part measure, with eighth notes and corresponding rests.

Place first music reader in the hands of the pupils; let them sing by note the first twenty pages which they have already sung from the board, learning to place *do* and write easy dictation exercises in all keys studied.

Example of dictation—teacher songs 13385 8 with loo, child write on staff.

Teach keys of one and two sharps, teach keys of one and two flats. Much ear training of this kind should be given. See Manual Section IV for the two part music work.

FOURTH YEAR

Central Thought—Ease in reading different ryhthms.

General review of all primary work done in more advanced form.

Teach the dividend beat according to Manual Sec. V following by drills in exercises and songs. Give practice in two part singing.—See Manual Sec. IV.

Teach sharp 4 and flat 7 according to Manual, Sec. VII and VIII

Explain meaning and use of all marks of expression as they appear

Give written work and drills and dictation.

Teach letters of the staff and have the 1, 2, and 3, flats thoroly learned.

FIFTH YEAR

Central Thought—Chromatic work.

Use chromatic drills given in Manual, Sec. IX.

Learn songs applying these chromatic intervals.

Teach the dotted quarter as it occurs in 2-4, 3-4, and 4-4 measures. See Manual Sec. V.

Two part singing should be thoroly developed. See Manual, Sec. IV, last part.

Ear training—dictation.

SIXTH YEAR

Three—part singing may be commenced. See Manual, Sec. X.

Minor scales studies according to Manual, Sec. XI. Complete second reader.

Ear drills; dictation.

SEVENTH YEAR

Study all the songs in minor keys in third reader.

Give drills in singing and writing Normal minor scales.

Melodic minor scales and Harmonic minor scales.

Complete third reader.

In this grade supplementary Codas, Beacon Series leanets may be used to great advantage.

EIGHTH YEAR

Teach the bass clec. See Manual Sec. XII.

Teach the chords in both Major and Minor keys, on degrees 1, 5, and 4; see Manual Sec. XIII.

Read by note the fourth reader.

Written work, ear drills. Writing easy melodies after hearing teaching sing.

Write notes from memory of familiar songs.

REMARKS TO PREFACE MANUAL

Teach the bass cleff. See Manual Sec. XII.

1st. Knowledge of subject matter.

2nd. Knowledge of the fundamental principles of education and the application of same to subject, to be taught.

3rd. Tact and sympathy to fit the work to the needs of those to be taught and power to hold the attention of pupils.

The first thing is to give rote songs. The child should know at least fifty songs before any technical work is given.

ROTE SONGS CLASSIFIED

Morning Songs.
Action Songs.
Vacation Songs.
Season Songs.
Flower Songs.
Christmas Songs.
Thanksgiving Songs.
Lincoln's Birthday Songs.
Washington's Birthday Songs.
Arbor Day Songs.
Memorial Songs.
Lullaby Songs.
Weather Songs.
Easter Songs.
Game Songs.

EXCELLENT BOOKS FOR ROTE SONGS.

Modern Primer, price 30 cents, Silver Burdette & Co., Chicago, Ill.

Teacher's Edition of Educational Music Course. Ginn & Co., Chicago, Ill.

Child World Book I. and Book II. by Mrs Gaynor, Schirmer & Co, 25 West St., Boston, Mass.

Little Songs for Little People, Neidlinger, Schirmer & Co., West St., Boston, Mass.

Song Stories for the Kindergarten, by Mildred & Patty, S. Hill, Schirmer & Co., 25 West St., Boston, Mass.

Earth, Sky and Air, Neidlinger, American Book Co., Chicago, Ill.

MANUAL SECTION I.

ROTE SONGS.

Definition,—Singing by imitation.

AIM.

1. General Aims.—1. Physical training. 2. Aesthetic training. Ethical ture.
2. Special Aims.—1. To promote natural breathing. 2. To cultivate the taste.
3. To train ear, voice and eye. 4. To teach good style of singing.
2. *How Taught.*

The teacher sings the song entire in the most artistic manner possible, one, two, three, four, five, six or seven times. It must be sung until the children are almost ready to hum it. Then she sings short phrases and has the children echo the phrase until it is thoroly known. This is repeated until all the phrases of the song are sung. Then the phrases are joined, and the teacher sings with the children until they can sing corectly alone.

MANNER OF ACCOMPLISHING SPECIAL AIMS.

1. *To promote natural breathing:*

1. Never speak of breathing.

2. Sing rapidly (Important) for by slow singing the phrases becomes so long that they tire the children.

3. Never hurry over the breathing places.

4. Make the phrases short and give the children this exercise,—Inhale as if smelling a beautiful rose. Exhale with sh.

Be sure to have child on balls of feet, and when sitting have his back against back of desk.

Air must be pure in the room.

II. To Cultivate The Taste.

1. Teach only good music.

2. Give children as perfect an example as possible for imitation Give as many opportunities as possible to hear good music.

3. Choose songs in which words are of a character interesting to children.

4. Insist upon artistic rendering of the song by the children.

(*Caution.* Do not permit children to sing except under guidance of teacher. Teachers should not be correcting papers while children are singing.)

III. To Cultivate the Ear, Voice, and Eye.

1. Always give key note before starting to sing. Singing in too low a pitch is very injurious to children's voices. Each teacher must have a pitch pipe ;the Congdon pipe is the best.

2. Never allow children to sing out of tune. When children sing out of tune have them sing more rapidly and *lightly;* if this does not help, open the window and give them gymnastic exercises. If this does not cure it, let them sing in a different key. Should this fail, do not let them sing the song again. Test key frequently with the pitch pipe.

3. To cultivate the ear, correct every false intonation. Never allow the child to think he is singing correctly when he is not.

4. If the ear of any child is very deficient, that child must be dealt with alone. Such a child is called a monotone. In the first place put your monotones in front of your best singers. Stand over him and sing right into his ear, then tell him to sing what you put into his ear.

Another way is to take the tone he calls do and have him call a boy, Jonnie, having the two syllables of that name cover an octave. If he can do this, he will soon learn the intermediate tones. *Fa* is the hardest tone for monotones.

For cultivation of voice have children always sing with a *light* quality of tone.

The teacher herself must never produce chest tones before the children, nor allow them to use them. To prevent chest tones, give songs that begin on high tones. They can not give chest tones in high notes. A child's best tones are within the staff, so a teacher should make an effort to keep within the staff. The air should be pure and the children perfectly comfortable, their feet should touch the floor. Do not scold children for singing incorrectly. Get them in a happy frame of mind. In order to get the right quality, try to get the right feeling.

There should be special ear training.

1st year's work in ear training:

Exercise 1.—Sing a phrase of song with *la,* and see if the children cannot recognize it.

Exercise 2.—Give two or three tones wiht *la,* and have them imitate.

Exercise 3.—Have every child sing a song alone.

Exercise 4.—Play ear testing games.

SECOND YEAR.

SECTION II.

In this year begin actual note singing.

Note singing is the translation of the symbols of music into song.

CENTRAL THOT OF THE YEAR:

TONE RELATIONSHIP.

AIMS.

General Aim.

Discipline (mental).

Special Aims.

1. To teach tone relationship.
2. To cultivate sense of rythm.
3. To teach all symbols of music.
4. To make quick and artistic sight singers.

SPECIAL AIMS.

I. To teach tone relationship.

1. The first thing in teaching tone relationship is to perfect the major scale. Anything that must be so thoroly learned must have many ways of presentation to the child. The child's thoro knowledge of the scale is indispensible in rapid sight singing.

The first way is to teach the scale in the form of a rote song; as

8 7 6 5 4 3 2 1 8 7 6 5 4 3 2 1

"Oh, what a lovely day in May!" or "See the sun so bright-ly shin-ing."

8 7 6 5 4 3 2 1

"How loud and clear ring out the bells."

The second way is by means of the syllabus. Have the children change the position of their mouths in singing every syllable, do, ti, la, sol, fa, mi, re, do.

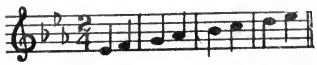
The third way is to sing the scale by numbers, 8, 7, 6, 5, 4, 3, 2, 1.

The fourth way is to give the children hand signs.

The fifth way is to give them the different rhythmical forms.

In the first rhythmical form every tone is accented. This is 2-4 time. In the second every third tone is accented: ¾ time. In the third sing two short notes and one long: 2-4 time. In the fourth sing three short notes and one long: ¾ time.

Ex. of 1



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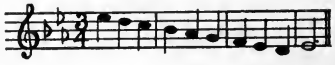

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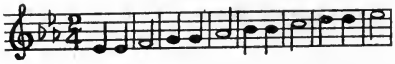

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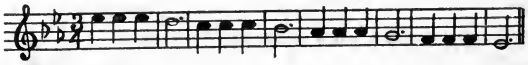
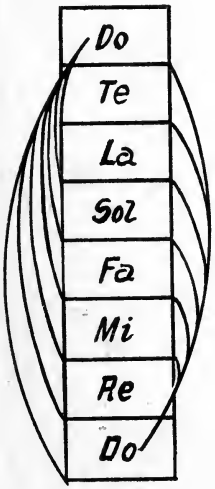


12. The second work in tone relationship is the turning on the scale. The first turn should be made on *mi*, the next on *so*. *Do, re, mi, re, do*, etc. One way of doing this is to tell the children that you will be their scale, and that when you turn they must turn on the scale. They change tone on each step they take.

Another way is to draw this stairway on the board and have them sing "Humpty Dumpty sat on the wall," on each of the steps, i. e., on each tone of the scale. We play we bring Humpty Dumpty down. Sometimes part way down to sol, sometimes to mi, etc., then turn and go to the beginning made.

3. The third step in tone relationship is to teach the relation of one or *do* to every other tone of the scale. To do this have the children sing do, re, do, re, do, etc., do, re, mi, do, mi, do, etc., do, re, mi, fa, do. Then have them sing all the intervals of the scale. 1, 2, 1, 2, 1; 1, 2, 3, 1, 3, 1, 3; 1; 2, 3, 4, 1, 4, 1, 4, 1, etc. Then begin at the top and work down: 8, 7, 8, 7, 8; 8, 7, 6, 8, 6, 8; 8 7, 6, 5, 8: 8, 7, 6, 5, 4, 8, 4, 8; etc. Do this until every tone in the scale has been developed. The next to be developed should be 3 and the next 5. These drills can be given with the ladder, staff, or column of figures.

Ex. of 1.



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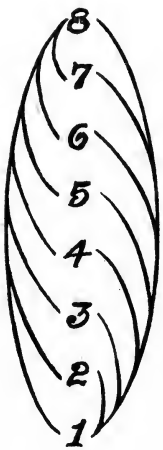
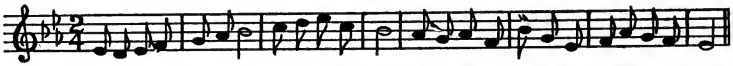


The fourth way of developing tone relationship is by means of three chords. The first is the Tonic chord—1 4 6 8. The next is the Sub-Dominant chord—1 4 6 8. The last is the Dominant chord: 1 5 7 2 (above high do) 8. Teach the children to recognize these when you sing them with *la*. Apply this by selecting songs that contain the scale progressions, especially those with the Tonic and Sub-Dominant. The first skips to be found in these chords.

5. Write on the board, using the staff, one of the most attractive songs learned by rote, under each note write, the syllable name and have the children learn to sing the song with the syllable names. Memorize ten or fifteen songs in this way.

Ex. 12.



do, ti, do, re me, fa, sol, la, ti, do, la, sol, fa, mi, fa, ri. sol, mi, do, re, fa, mi, re, do

These tone relationship drills must be continued even thru the third and fourth grade until the knowledge is as automatic as the multiplication table is to be an expert mathematician.

Written work and ear drills.

1. Be sure that each child can write the scale after the sharps or flats have been placed and the teacher has given the place for do.

2. Teacher sings with loo, 1, 2, 3, 1 or 1, 2, 3, 2, 1 or any easy phrase like the above and the children write what is sung upon the staff. Have written work about once a week.

3. Sometimes copy an easy song.

SECTION III.

RHYTHM

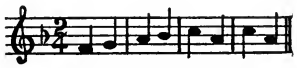
In teaching this subject it is necessary, at first, to give the child the feeling of rhythm. This has been attempted usually thru the sense of touch or sight. It will be, however, preferable to form this sense thru the ear, and we, therefore, use the song as the basis of instruction in tone relationship.

Any of the songs used hitherto may now be utilized to develop in the child's mind a consciousness of rhythm and thus make definite and distinct that which he has unconsicously been doing from the beginning. The teacher may call attention to the regular recurrence of loud and soft tones, selecting portions of songs to illustrate the point; directing the pupils to sing a few measures of a song which is known to them, the words "loud, soft" (loud being emphasized) being substituted in their proper places in each measure for the words of the song. Here should be reviewed the making of circles in rhythm, and the clappnig of the hands.

Two part Rhythm, 2-4 time; one tone to each measure word.

The teacher may write on the board the following songs: 1, 2, 3, 4, 5, 3, 5, 3. Class will sing using these words: *Hear* the *clock* say *tick* tock, *tick* tock.

Repeat the song using the word "Loud, soft, loud, soft, loud, soft, loud, soft." The teacher now asks how many times the words loud, soft, were sung, and will then say: "Yes, you have sung four two-part measures. Whenever you say "loud, soft" in this manner you are giving me the measure words of a two-part measure." Teacher then represents it thus:



Call upon the children to name the number of two-part measures written, and also call the attention to the 2-4 signature writen at the beginning of the song. Also the to the bar, and the strong accent always coming after the bar. Follow this with two or three month's practice in songs and exercises in this rhythm, calling the children's attention to the facts that some songs begin on the soft part of the measure, sometimes a tone is held during the loud and soft part of the measure, namely the half note; and also that we may rest during any part of the measure, while we whisper or think the word out loud or soft.

THREE-PART RHYTHM, ¾ TIME.

Teacher sings: 1, 2, 3,—1, 2, 3,—4, 3 ,2,—3, 2, 1 to the words, Hear Little Bob-o-link singing so merrily. Class imitate. Then divide the class, one-half singing words: Hear little Bob-o-link, etc., while the other half counts the number of loud tones. Teacher will draw comparisons by saying: "What measure have we learned heretofore?" Class answers "Two part measure." Teacher says: "Give the measure words for two-part measure." Class: "Loud soft, loud soft, etc."

Teacher: "Sing the little song you have learned for two-part measure."

Children sing the phrase used for teaching of two-part measure.

Teacher: "Now we will sing our new song and see if we can feel the measure."

Teacher counts "Loud, soft, soft," while the children sing.

Teacher: "How many tones come after the loud tone?"

Class: "Two."

Teacher: "Then give the measure words."

Class: "Loud soft soft, loud soft soft."

Teacher: "How many parts to the measure?"

Class: "Three."

Teacher: "Whenever you sing 'Loud, soft, soft,' in this manner you sing in three-part measure."

Represent on the staff. Call attention to time signature, ¾. Give drill and practice with songs and exercises, teaching that the note is held during "Loud, soft, soft."

Teach 4-4 and 6-8 rhythms in similar manner.

Measure names for 4-4 are "Loud, soft, light, soft."

Measure names for 6-8 time: "Loud, soft, soft, light, soft, soft."

SEVTION IV.

TWO PART SINGING.

Two-part singing is not a separate study, but may be introduced in the first year's work. This, as all other musical facts should make its appeal to the sense of hearing first. When the children in the last half of the first year can sing some rote song well, the teacher may sing an alto to it. This may confuse the children at first, causing them to lower their melody or sing with the teacher, if it does she must sing very softly and at some distance from them. After they are able to hear the harmony without losing their melody, the teacher may sing with fuller voice, nearer to them. Continue this practice until small groups of children and even individuals can sing their part independently while the teacher sings the alto.

When they begin to read two-part music by note, in the third and fourth grades, the teacher divides the school into two divisions, one side singing 1, 2, 1; and the other 1, 7, 1.

Do not always hold exclusively to songs that use thirds and sixths. The class should not sing the parts separately at first, but both parts should start together. This will develop independence and self-reliance, and will concentrate the child's attention on each individual part.

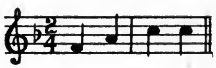
Do not have the same children sing alto all the time, but have the side that sang alto one week sing soprano the next. This changing of the pasts must continue until after the children's voices have changed. If this is not observed carefully the children's voices will be ruined. When their voices change, they will have only a few tones they can sing.

After beginning two-part singing, do not neglect to have unison singing, at least ,two or three times a week. Unison singing should be kept up all thru the grades, as bad tone production can be more easily detected in unison singing, and lightness and delicacy of tone is more easily secured.

SECTION V.

THE DIVIDED BEAT, OR PULSATION.

Teacher sings: Hear the skylark.
1 3 5 5



Hear the sky lark.

Class imitate.

Teacher then asks, "How many and what kind of measures did we sing?"

Class: "Two-part measure with quarter notes."

Teacher sings:

Hear the sky lark.

Class imitate.

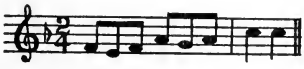
Teacher: "How many and what kind of measures have we sung?"
Class: "Two-part measure with quarter notes."
Teacher: "What is the difference between these two exercises?"
Class: "The last exercise has more tones in the first measure."
Teacher: "This is a two-part measure containing four eighth notes. Sing it again."

Then teacher represents it on the board, calling attention to the new kind of note, the eighth.

Follow with drills, exercises and songs as suggested in Course of Study.

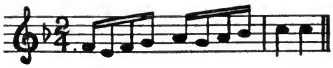
The sub-division into three and four parts, may be taught in the same manner by singing thus:

5th grade



3 3
Hear the sky lark.

8th grade

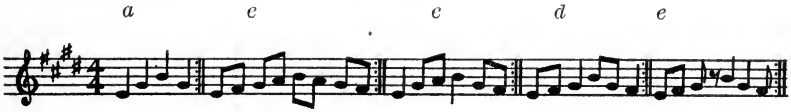


SECTION VI.

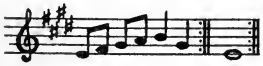
THE DOTED QUARTER NOTE.

It would be well to give the following preparation exercises in work they have already had before beginning the teaching of the dotted quater note.

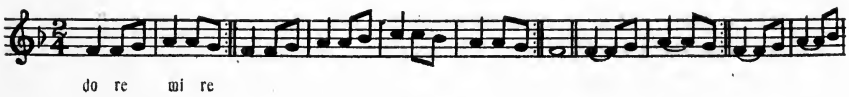
a *c* *c* *d* *e*



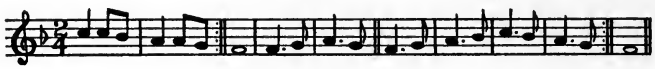
f



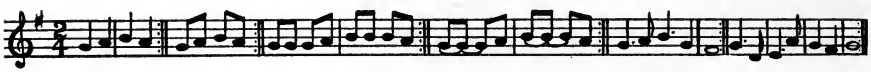
Development Lesson.



do re mi re



Drill Exercises.

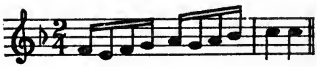


Drill still further with songs and exercises selected from their books.

Exercise for four notes to the beat.

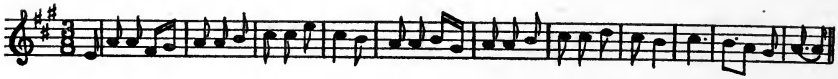
Hark the sky lark.

Ask each time how many tones to each word in the first measure.



Drill with songs and exercises containing eights and sixteenths.

Lullaby by Tomlins.



SECTION VII.

SHARP FOUR.

The chi'dren should have had many rote songs containing sharp four before it is given to them in their note reading.

Sharp four is taught thus:

Teacher says: "Sing one in key of D."

Class sing *do*.

Teacher says: "Sing five."

Class sing *sol*.

Teacher says: "Call this tone eight."

Class then calls it *do*.

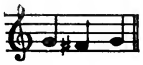
Teacher says: "Sing 8 7, 8."

Class sing "Do, ti, do."

Teacher says: "Call this that you have just sung 'Sol, fi, sol' and sing sol, fi, sol."

Teacher says: "You have sung five, sharp four, five." Then she says, "Sing five sharp four five," and children sing "Sol, fi, sol."

She then represents it on the board thus—as one of the ways of representing it.



Children should be trained to know that all sharped tones approached from above sound like do, ti, do, so we call do, ti, do, the pattern of all sharped tones approached from above. It is always easier to approach a sharp tone from above.

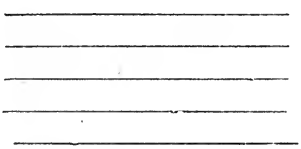
For drill upon sharp four, see first page of Section 9 of Manual.

SECTION VIII.

FLAT 7.

Teacher: "Sing 8." Class sing "do."
Teacher: "Sing 6." Class sing "la."
Teacher: "Call this tone *mi*." Class sings *mi*.
Teacher: "Sing 3, 4, 3." Class sings mi, fa, mi.
Teacher: "Call it la, te, la." Class sings la, te,la.
Teacher: "This is 6 flat 7—6."
Teacher: "Sing 6 flat 7—6." Class sings, la, te, la.

Teacher then represents on the board thus:—as one of the ways of representing it.



Then follow with drill exercises and songs containing flat 7.

SECTON IX.

CHROMATIC DRILLS.

It will be found necessary to give special chromatic drills, the following should be carefully and accurately learned and may be practiced by the teachers' pointing sometimes to the ladder, other times to the staff, or the figures, having them carefully written on the board as follows:

Sing 5, No's. 4, 5—3, No's 4, 5—2, No's 4, 5—1, No's 4, 5—6, No's. 4, 5—7, No's 4, 5—8, No's 4, 5—4, No's 4, 5—1.

Sing, 1, 2, No's 1, 2,—1, 3, No's 2, 3,—1, 5, No's 4, 5,—1, 6, No's 5, 6—1, 7 No's 6, 7—1.

Sing 1, 3,—1, No's 1, 2, No's 2, 3—2, 4,—2, No's 2, 3, 4,—3, 5,—3, 4 No's 4 5,—4, 6,—4, No's 4, 5, No's 5, 6,—5, 7,—5, No's 5, 6, No's 6, 7—6 8—6 No's 6, 7, 8, and so on taking larger intervals each time until the chromatic scale ascending is perfected.

Sing 6, b7' 6— 5, b7, 6—4, b7, 6—3, b7, 6—2, b7, 6—1, b7, 6—8, 7, b7, 6—8. So continue drils using flat intervals until the descending chromatic scale is learned, then test the knqwledge by skipping to any chromatic intervals. In all singing work especially chromatic work frequently test the key. No varying from the pitch must be tolerated.

SECTION X.

THREE PART SINGING.

Three part singing may be practiced in the fifth grade and continued thru the course. The voices of the older pupils should be classified in the sixth grade.

In testing voices, the teacher may give the pitch G on second line of staff. The pupil should then sing upward from this tone to the highest tone which he is able to sing easily and without forcing the voice. From the same key he should then sing down the scale to the lowest tone he can sing easily. He should then be assigned to the highest part, if he is able to sing G, above the staff with ease; to the lower part, if he sings G, below the second leger line. If he is not able to sing either extreme, he should be placed in the middle part. Pupils who can sing from the low G, to the high G, should be placed in accordance with the tone color or quality of their voices. The light, clear voices should be placed in the lower part.

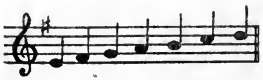
Children with unchanged voices should alternate, part of the time singing middle part, and part of the time singing high part. Unison and two-part singing must be continued.

MINOR SCALE.

Teacher develops the minor scale from the major by singing from 6 to 6. Class imitate.

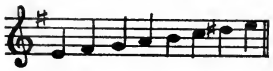
The teacher then names this as the Normal Minor and writes it on the board thus:

E Minor Normal.



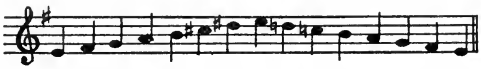
Teacher then explains that this scale is unsatisfactory, lacking a leading tone, so musicians have sharped the *sol* in order to have a leading tone. Thus sharping sol, give rise to the harmonic minor, written thus:

E Minor Harmonic.



This is so difficult to sing, the musicians finally sharped both fa and sol ascending, and neither descending, and thus we have the Melodic Minor, written thus and most used in singing:

E Minor Melodic.



Children should be trained to sing these three forms of minor scales, and given minor songs and exercises for drill.

SECTION XIII.

CHORDS.

Divide class into three divisions. Have one division sing 1, another 3, another 5, and sustain the tones.

Then teacher says: "Lou have sung a chord. A chord is the combination of three or more musical tones sounded simultaneously."

1—3—5 is called the Tonic Chord.

4—6—8 is called the Sub-Dominant Chord.

5—7—2—4 is called the Dominant Seventh Chord.

Pupils should be trained to write these chords in different keys to recognize them in songs.

SECTION XIV.

Children in the seventh and eighth grades should learn to recognize and name intervals.

The following tables will give the types of the intervals formed by the tones of the Major scale:

1 to 1	Perfect Prime	6 to 8	Minor Third
1 to 2	Major Second	5 to 8	Perfect Fourth
1 to 3	Major Third	4 to 8	Perfect Fifth
1 to 4	Perfect Fourth	3 to 8	Minor Sixth
1 to 5	Perfect Fifth	2 to 8	Minor Seventh
1 to 6	Major Sixth	1 to 8	Perfect Octave
1 to 7	Major Seventh	4 to 7	Augmented Fourth
1 to 8	Perfect Octave	7 to 4	Diminished Fifth
1 to 8	Minor Second		

Practice should be given in determining the character of all the intervals in the major scale.

Ex. 1to 1; 2 to 2; 3 to 3, etc. Perfect Price.
1 to 2; 2to 3; 4 to 5, etc. Major Seconds.
3 to 4; 7 to 8, etc. Minor Seconds.

Some schools do not require interval work. With a skillful teacher it is excelent work in training the child to become more musical.

We give ear drills in which he is distinguished, when played, minor from major thirds. Minor chords from major chords, etc.

With the piano this can be made an interesting exercise.

Children can be trained to tell the intervals (whether seconds, thirds, fourths, etc.) and the kind of intervals (whether minor, major or perfect) the instant they are struck upon the piano.

Drawing

This outline provides for a course of instruction in form study, drawing and color as complementing each other, and as together furnishing a means of mental development indispensable in the education of every child. It recognizes the child's individuality, and his aesthetic feelings,—his natural love for the beautiful. It recognizes nature as a part of the child's environment and the cultivation of his power of appreciating and expressing the spirit and the beauty of natural objects. It recognizes industry and art as parts of the child's social environment, the cultivation of his power of appreciating the beauty and significance of industrial and art work, and the development of his creative powers along industrial and art lines. The pupils are led through their studies to feel a comradeship with Nature, their power of observation are incited, their eyes are trained to see correctly, and their hands to obey the will.

The work is arranged in two divisions. The first division includes work for the primary grades. The second division includes work for the intermediate and grammar grades.

This course does not undertake to prescribe any particular system of drawing. It refers to the Prang System as one of the systems in common use. If teachers prefer another system, most of these suggestions will apply with usual force.

If the Prang Course is used, the Teachers' Manual for the same will be of great help to the teacher.

In writing out this course free use has been made of material found in other courses of study, practcally in that of Illinois.

FIRST DIVISION.

Materials. Chalk, water colors, charcoal, clay, colored sticks, tablets carpet warp, soft pencils, rulers, raphia, cubes, spheres, rectangular prisms, drawing paper, Prang Drawing Book No. 1.

In all blackboard drawing the broad side of soft chalk is to be used. The work must be done rapidly and must be as true to life and nature as possible. There is to be little or no outline work in the illustration of stories and drawing bits of scenery. Tree trunks, posts, etc., are to be made by single strokes of the chalk, pressing down more heavily for the brighter sides. Houses, hills, etc., are to be filled in solid. If the children place all the trees, houses, etc., in a straight line, show them actual scenery or at least pictures.

In water colors the prime colors—red, blue and yellow—are to be used, also Japanese brushes, bits of blotting and trial papers, water-cups and paint rags for cleaning the boxes.

All color combinations necessary can be made from the three colors. Red and blue=violet; blue and yellow—green; yellow and red—orange. Care must be taken that the paints are kept clean, that the brush part is not handled with the fingers, that the paints are not mixed too much, and are put on with a full brush in order to keep their brillancy. Waters should be put on without first having a pencil outline.

Charcoal rubs off very easily. If any drawings are to be kept any length of time they must be "fixed." Fixatives can be obtained at artist supply shops. but a very good fixative can be made by dissolving as much gum shellac as it will hold, in a pint of alcohol. Let this preparation stand some hours, then strain it through a fine sieve or linen rag. When it has settled and become quite clear, it can be sprayed on the picture with an atomizer. Another way of using the fixative is to apply it to the back of the drawing with a large bristle brush. In this case some one will have to hold the picture vertically.

Clay Work. Native clay mixed with plaster of paris can be used, or clay already prepared may be obtained.

After a careful study of an object, give each child a piece of clay on a cardboard or large piece of heavy paper, and let him make it by pressing little bits of the clay together until the desired shape is obtained.

In order to keep the clay in good working order, keep it in an earthen jar or crock, pour enough water on it so it can be easily worked with the fingers and cover it with a wet cloth when not in use.

The colored sticks for stick laying can be had in one, two, three, four, five inch and assorted lengths.

The wooden tablets are in the natural colors of the wood, half light and half dark, with finely polished surfaces. They are in shapes of triangles, circles, squares and semi-circles, about one inch in diameter.

For weaving, the Fairbault loom may be had with hammock attachment, and carpet warp of any color may be used for the warp.

Raphia comes in natural color and in various colors. One pound is sufficient for about ten baskets, or from thirty to forty mats. The raphia is braided, then the braid is sewed round and round in any desired shape.

For the reed baskets the round reeds No. 3 and No. 4 are used. One pound makes about ten baskets. The reeds must be soaked about an hour before use and whenever they become too dry to continue the work.

First Term. Drawing on the blackboard or with charcoal or soft pencils on paper, illustrating the different stories or myths. Different parts of the stories can be shown in different spaces on the same paper.

Painting of fruits, and autumn leaves.

Moulding of fruits, also of spheres and cubes, learning about the shape, faces, etc.

Laying sticks in harmonious colors to form designs, also grouping sticks of one color.

Weaving mats, using pleasing colors.

Braiding raphia mats.

Use of the ruler, measuring lines, objects, length and width of the room heigths of the children, learning that ½ inch equals $^2/_4$ of an inch, that $^2/_2$ or $^4/_4$ equals a whole and that ½ of ½ is ¼.

Most of the children in the First Division should use drawing paper; the oldest class may use a No. 1 Drawing Book.

Paper Folding. (Cutting and making.) This work is continued throughout the whole year. Fold book, window, card-case, hanging basket, fan, shawl, roof, envelope, box, kite, table-cloth, soldier-cap, boat, salt cellar, screen, etc.

SECOND TERM. Drawings on the blackboard with charcoal or soft pencil on paper representing the different stories or winter myths.

Laying sticks in harmonious colors to form borders with pleasing designs and colors.

Placing the tablets to form borders and other designs, incidentally learning the shapes of circles, squares and triangles, and that all triangles have three sides and three corners, and all squares have four sides and four square corners.

Moulding of cubes and square prisms, of Eskimo houses, Eskimos and their dogs. To make the Eskimo house make bricks of clay about three inches long, an inch and a half wide and one inch thick. Arrange these on a heavy cardboard in a circle, leaving an open space for the little outside igloo. Upon this first row place another and another, and so on, bending each slightly inward, making it smaller than the preceding ones, and fastening it with added bits of clay. At the very top leave a small space for the chimney. If any windows are desired, bits of mica answer the purpose beautifully. The little outside igloo is made in much the same way.

Use of rulers in making boxes, trays, etc., for nature study. Learning that ½ of ¼ is ⅛, that 4-8 equals ½, and ½ of ½ of ½ equals ⅛.

Paper Folding. Continue work of first term.

Weaving. Begin weaving hammocks.

Picture Study. Picture study serves to develop in the child a liking for that which is beautiful and true, or so beautiful that one wishes it may be true.

The children should bring as many of the pictures as they can, but the teacher should have a good assortment of appropriate pictures, for in many cases the pictures brought by the children are of little use in the work.

Children enjoy—

(a) Pictures of babies and baby animals; all of which appeal irresistibly to the affections of the child.

(b) Pictures of things that children like best.

(c) Pictures or copies of the masterpieces.

Lead the children to find and enjoy what is best in each picture; assist them in determining what the picture wishes to say to them.

From this unconscious expression of the children the teacher gains a knowledge of what and how much the children see. Give the children every opportunity to draw. Allow them to draw freely, using pencil or charcoal on paper or crayon at the board.

Continue use of Drawing Book No. 1.

Weaving of hammocks continued from the preceding term.

Tablet and stick laying in original borders and other designs.

Simple drawing in pencil or charcoal from life, having some child pose in some easy position.

Paper cutting and folding continued from the preceding term.

Use of rulers in making weather charts, boxes for holding soils, envelopes for seeds, etc.

Continue use of Drawing Book No. 1.

Braiding and sewing raphia baskets. First braid the raphia, then sew round and round, using finer strands of raphia for the thread.

SECOND DIVISION.

Materials. Water colors, charcoal, soft pencils, chalk, clay, raphia, reed, spheres, cubes, prisms, cylinders, cones, pyramids, drawing books No. 2 and perhaps No. 3.

First Term. Illustrations with chalk, charcoal and soft pencils, illustrating stories, places met near the schoolhouse, in the geographies, incidents of history, etc.

With drawing models and bits of scenery the first principles of perspective can be taught that objects are smaller at a distance and that all parallel lines, not verticle, converge.

Many easy free-hand drawings may be made to illustrate the principles of free-hand perspective. A crayon box makes a good model, and drawings may be made to show it held above, below or on the level of the eye, and to the right or the left. Parts of the box may be removed and more drawings made if desired.

Drawings of fences, lines of telephones poles, rows of trees, roads and similar views will furnish additional material.

In order to decide how much of a scene is to be put into one picture, small view-finders are used. These can be made in any desirable shape. When looking through these view-finders keep one eye closed and move the hand nearer or farther off from the eye until the desired picture is found.

To get the correct proportions, choose one dimension of one subject, perhaps the height of a tree. Close one eye, hold the pencil vertically, so that the end of it comes to the top of the tree, then move the thumb along the pencil until it touches the foot of the tree, note this distance on the pencil, and using this as a guide get all the other proportions.

Sketches with pencil or water colors of leaves or any mat models which present a simple shape in area. The models should be mounted on cards if they are small. If large, a model may be placed against the wall and be drawn by several pupils at the same time.

The general shape of the model should be noted by comparison with several type-shapes drawn on the blackboard. These type-shapes may be triangles, circles, squares, ovals, ovoids, ellipses, rectangles, etc.

If a model is more triangular than oval, round, square, or ellipical, the realization of that fact will help in drawing it.

Much of the litle detail, such as the litle veins and serations of a leaf, may be omitted at first, and should be put in only after the general shape has been well drawn.

Spherical models, or models approaching roundness in form present least difficulty in drawing because they do not change shape when seen from different views. A sphere looks circular in outline from any view. Apples, pumpkins, many fruits and vegetables, jars, balls, some trees, etc., will serve as models. The circles should be drawn free hand. Details, such as the eyes of a potato, or the division of a pumpkin or melon should be put in last after the general roundness is lightly drawn.

Paintings of nature study materials, or bits of simple scenery.

Moulding in clay of fruits and other nature study materials.

Weaving simple reed basket.

Reeds and baskets must be kept wet until completed.

Use of soft pencils for Drawing Books No. 2 and No. 3.

SECOND TERM. Continuation of charcoal, crayon, and pencil drawings illustrating geographical scenes and historical events.

Relief maps in chalk and charcoal.

Designs based on plant forms or other forms studied during the past months may be made either with pencil or water colors. The drawings of the previous term may be at hand to furnish the motif.

Conventional forms made by regulating the natural forms to some orderly lines should be made. Then some line along which these conventional forms may be arranged should be drawn suitable to fill the space of the design. The work may well be of three general sorts.

1. Rosettes, which consist of arrangements of some leaf or other unit about a point.

2. Borders, which consist of arrangements of some unit along a line in repetition or alteration.

3. All-over patterns, which consist of repetitions of the same unit in all directions, by drawing the units within circles, squares, triangles, etc. These designs may be used to decorate sheets for others school work, as compositions, writing, etc.

Shading. Shading should be done with a very soft pencil after the outline of the form has been drawn in light lines. Small square areas may be filled in with different tones of pencil lines as a preparatory exercise.

The pencil should be held within the hand. The strokes of the pencil should appear separate. The lines may well follow the direction suggested by the texture or nature of the surface to be represented. The following principles are involved in the light and dark of forms:

1. All surfaces darken slightly toward the source of light.

2. Shadows are darker than shades of the same colored surface.

3. Shadows soften in outline as they recede from the source of light. Care should be taken to place the model in a steady, strong light from one side only.

Continue use of Drawing Book No. 2.

THIRD TERM. Water color and charcoal sketches of landscapes around schoolhouse.

Paintings of birds, nests, and spring flowers.

Pencil drawings and water color sketches of groups of models.

In shading, the same instructions for holding the pencil, and the same principles given for the last term apply for round and cylindrical models also. One additional principle is involved. The shade side of a rounded form is darkest inside the outline of the side farthest from the light and not on that outline.

In spherical forms this intense part of the shade side is reduced to a small spot opposite the lightest spot on the light side, and both the darkest and lightest spots are inside the outline. It is the purpose of the shading to make the drawing appear round and solid.

The combining of objects in groups of two or more different objects gives added difficulty in drawing because the relative proportion and position of the models in the group must be considered in addition to the different parts of each model. A group must be considered first as a whole model. Its general shape and proportion must be studied before the individual models are drawn. Care should be taken to get consistent and pleasing groups.

Drawings from life having one or more of the children as models.

Relief maps in crayon, charcoal, clay, and water colors.

Continued use of Drawing Books Nos. 2 and perhaps 3 if class finishes No. 2.

Suggestions

IN BEGINNING YOUR SCHOOL.

Before you make out the formal contract, be sure you have a certificate valid for the term and on record in the county where you expect to teach. Remember that a state certificate is not valid in any county, unless it is on record in the books of that county.

A few days in advance of the beginning of your school, go to the neighborhood where you are to teach, arrange for boarding place and get at least partially "settled" in it before school begins.

Secure the school register for the preceding term and find out all you can from it about your prospective pupils, what grades they are in, what month's work, the program, the size of classes, etc.

Make out a temporary program for the first day or two; do not attempt to put in all the subjects you expect ultimately to teach, but do provide something definite for each grade during each of the four sessions of the day; provide some construction work or other seat work for the lower grades; plan some mathematical drill or game, some spelling review, some drawing lessons, some interesting reading of your own, *something* for the unexpected gaps that may happen in the first day's program.

In the lessons you plan, make them easier than you would for the same grade later in the term—it is surprising how much even bright pupils can forget in a three to five months' vacation. The first few days may well be spent largely in review, though your purpose to start them soon on advanced work should be made clear to the pupils, otherwise they may say: "The new teacher put us back to go over the same old work again."

Examine carefully the condition of the building, supplies, books, etc., and as soon as possible give the clerk or the local director a written statement of the things you need for doing reasonably efficient work. Make it definite; know why you want each thing you ask for; if any of the things are not to be secured locally, indicate the name and address of the firm from whom they can be secured, and the approximate cost.

As soon as your program is reasonably complete, send a copy to the County Superintendent with your Notice of Beginning School, place a copy in the register, and post one in some conspicuous place in the school room. (In planning this program see the arrangement of the schedule for the different subjects as given in the Introductory pages of this Course, and study carefully it and the suggestions for correlation of subjects immediately following it; see also the suggestive programs in the closing pages of this Course of Study.)

IN CLOSING YOUR SCHOOL.

Fill out properly every blank in the pages of the register of your term of school; be sure a copy of the program is in its proper place; indicate the year and month attained by each pupil in his school work; fill in all summaries and balance the register as your final report must balance.

Then, make out two copies of your final report, filling in all data called for on the inside page, and making the totals balance on the outside of the report. Mail both copies to the County Superintendent. Do not ask the Clerk to violate the law by issuing your last month's pay warrant before he has received the approved report from the County Superintndent. If it is imperative that you leave at once on closing your school, and you must have the month's pay before you leave, an explanation of the case would probably secure the Superintendent's permission to close your register Wednesday evening of the last week, considering all pupils then enrolled as present the last two days of the term.

These reports the law requires; some other things should be done.

Unless you expect to return to the school next term, if you remember how hard it was for you at the beginning of the term to learn much from the register regarding the condition of the school, you will realize how helpful it will be to your successor if you leave in the register a sheet or two of paper with a sentence or two telling just what each class was doing in each subject during the last weeks of your school. This will need to be especially clear wherever any irregularity of work was necessary.

Have a "last day program," a picnic, or social; in some way get parents and pupils together for a good time.

If you have a "graduating class," arrange a commencement for them; get up a program to which all the school contributes songs, class exercises, and maybe other parts, but in which the graduates have leading parts; get the County Superintendent to come out and present the diplomas;—in short, make it such an occasion that the graduates will feel they have accomplished something, while the other pupils make up their minds to "be up there someday."

Finally, before you leave, see that every book and piece of apparatus is in the best place for its preservation, the organ locked, sheds, outbuildings, shutters and windows fastened, and everything in the best condition in which you can leave it.

Seat Work

FOR FIRST AND SECOND YEARS.

Keep every child employed. Children take the keenest pleasure in doing work that is well suited to their powers. The teacher who allows children to sit idle is committing an unpardonable wrong. The work should be varied and of such a nature that the mind is kept alert. When the work sinks into the purely mechanical, the powers become dulled instead of quickened and indifference and weariness follow. Give work with definite directions for performing it, and hold children responisble for its being done.

1. The following materials are excellent for seat work to be given to beginners, and later to furnish change and rest. The teacher can with very little trouble, supply herself with a quantity of shoe-pegs, sticks, seeds, cards. worsted, shells, etc. These can be used for:

a. Sorting and matching according to color, shape or size.

b. Copying designs from blackboard.

c. Making original designs.

d. Outlining words from reading lesson which the teacher has written upon the slate or large card.

2. Matching words—Each child is provided with a box or envelope containing separate pictures and corresponding words. He should select the pictures, lay them in a horizontal row upon his desk, then take the word-cards from the box, one by one, and place each by the picture which it names. Sheets of manila cardboard afford good and inexpensive material for this work.

3. Copy a lesson or a column of words from the book; cut apart and place in a box or envelope. The child should open his book at the lesson and arrange the script words-cards in the same order as in the book. It may be further used for his reading exercise, or he may write the words.

This can be used during the time the child is in the primer and first reader and sometimes for second reader seat work.

4. Boxes of printed letters are useful in making words and sentences.

5. Book-Making:

a. Word book in which the child places words as they become familiar to him; first the word cards written by the teacher are pasted in; later he writes them.

b. Picture books—Pictures cut from catalogues, magazines, etc., are pasted on paper; these papers are tied together to form a book.

c. Memory gems—After the selection is learned the teacher places it upon the board. It is used for a reading lesson; then copied by the child upon paper; these are kept and made into a book.

d. Paper folding and cutting. The work done may be used to form books.

Programs

Possible program for a school of six grades

10 Opening Exercises.
5 Drills on words and phases of reading lesson.
10 Arithmetic VI.
10 Arithmetic V.
25 Reading 1, 2, and 3.
10 each Reading IV, VI and V.

RECESS

10 Reading I.
10 Arithmeitc IV.
20 Number work II and III.
15 Penmanship.
10 Geography VI.
10 Geography V.

NOON

15 General lesson—first three grades.
10 Geography.
10 Language VI.
25 Reading I, II and III.
10 Language IV.
10 Language V.

RECESS

15 History (Spelling or Physiology) VI.
10 Language I.
10 Language II.
10 Language III.
15 History (Spelling or Physiology) IV and V.

It will be noticed that this program leaves ten minutes before the afternoon recess and fifteen minutes after recess to be divided among the classes given, as the teacher thinks best, or to be given to any subject not named here which it seems best to add.

The Drills immediately following the opening exercises many teachers would prefer to give in connection with the recitation of the reading classes; in this case this five minutes would be combined with the twenty-five minute period below. On the other hand some teachers feel that the little folks can do something toward preparing their reading lesson if they have been taught the new words; as a result these tachers like to take a few minutes at the begin-

ning of their study period for drill on these new words. This program is made out on this plan and of course the program for a school of five, seven or any other number of grades can be made out on the same plan.

Program for a school of eight grades.

10	Opening Exercises.
5	Word drills.
15	Reading VIII and VII.
25	Reading I, II, and III.
25	Reading IV, V, and VI.
15	Arithmetic VII and VIII.
	RECESS
10	Number work II and III.
10	Reading I.
15	Arithmetic IV and V.
15	Penmanship.
10	Arithmetic VI.
15	History VII and VIII.
	NOON
5	Word drills, I, II, and III.
10	Geography V and VI.
10	Geography IV.
25	Reading I, II, and III.
10	Geography VII and VIII.
10	Language IV and V.
10	Language VI.
10	Physiology VII and Civics VIII on alternate days.
	RECESS
15	General lessons—first three grades together.
25	History, Spelling and Physiology, IV, V, and VI.
15	Language and Grammar VII and VIII.
20	Language I, II, and III.

It goes without saying that a satisfactory program can not be made for a school of eight grades. The one here presented is one way of dividing the time, its aim being to divide it somewhere nearly equally between the various grades, and not giving practically all the time to the upper grades as is so common in the crowded program. It is to be noted that in your particular school the fifth grade may combine with the sixth instead of the fourth as given here, or the fourth grade may in reading join easily with a strong third grade, or maybe the sixth grade in some subjects can work at the same period as the seventh to better advantage than the seventh and eighth can work together. The size of the class too has to be taken into consideration to some extent in determining the amount of time it should receive. In interpreting this program as in making your own make use of the suggestions given in the pages on Correlation and Alternation of subjects.

Where to Get Supplies

Teacher's Register, Report Blanks of various kinds—County Superintendent's Office.

Pupils' Reading Circle Books—Northern School Supply Co., Fargo or St. Paul Book and Stationery Co.

Other Pupils' Reading Circle Supplies, as Prospectuses, Enrollment Blanks, Diplomas, etc.—County Superintendent's Office.

Teachers' Reading Circle Books—County Superintendent's Office.

International Dictionary—Northern School Supply Co.

Maps—Rand McNally Co., Chicago, or any school supply house.

Map of North Dakota—$.50 ($2.50 on rollers), Rand McNally Co. A smaller map more up-to-date can be gotten free from the Commissioner of Agriculture and Labor, Bismarck.

North Dakota Magazine and North Dakota Year Book—Commissioner of Agriculture and Labor, Bismarck.

Farmers' Institute Annual and numerous bulletins of value in the agriculture and geography work—Agricultural College, Fargo.

ADDRESSES OF PRINCIPAL PUBLISHING HOUSES.

Public School Publishing Co., Bloomington, Ill.
Atkinson, Mentzer and Grover, Chicago.
American Book Co., Chicago.
A. Flanagan, Chicago.
D. Appleton & Co., Chicago.
A. L. Burt, New York City.
A. S. Barnes & Co., New York City.
Milton Bradley Co., Springfield, Mass.
The Century Co., New York City.
Cassell Publishing Co., New York City.
Crane & Co., Topeka.
T. Y. Crowell & Co., New York City.
C. W. Bradeen, Syracuse, N. Y.
C. M. Parker, Taylorville, Ill.
Donahue, Henneberry & Co., Chicago.
Dodd, Mead & Co., Chicago.
Estes & Lauriat, Boston.
Educational Publishing Co., Chicago.
Ginn & Co., Chicago.
Globe Book Co., New York City.
Houghton, Mifflin & Co., Chicago.
Harper & Bros., Chicago.
Hinds & Noble, New York City.

D. C. Heath & Co., Chicago.
H. R. Pattengill, Lansing, Mich.
H. T. Coates & Co., Philadelphia, Pa.
Iveson, Blakeman & Co., Chicago.
George W. Jacobs & Co., Philadelphia, Pa.
Lothrop Pub. Co., Boston.
Longman, Green & Co., New York City.
Lee & Shepard, Boston.
The Macmillan Co., Chicago.
A. C. McClurg & Co., Chicago.
The Morse Co., Chicago.
Maynard, Merrill & Co., Chicago.
G. P. Putnam's Sons, New York City.
Pennsylvania Publishing Co., Philadelphia, Pa.
Prang Ed. Co., Chicago'.
Robert Bros., Boston.
Rand, McNally Co., Chicago.
Silver, Burdett & Co., Chicago.
Chas. Scribner's Sons, Chicago.
University Publishing Co., New York City.
The Werner School Book Co., Chicago.
Whitman & Ray Co., San Francisco.

The Course of Study is the measuring rod, or rule, which is used to determine at what point in the eight years' work in the elementary course a pupil's work has arrived. It should not be used as the Procrustean bed on which to stretch the work of the school in order to secure uniformity.

FROM REPORT OF COMMITTEE OF TWELVE.

INDEX

SUGGESTIONS.