1910

V6 n1: Course of Study of the Kindergarten and First Eight Grades 1910

Western Michigan University

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COURSE OF STUDY
OF THE
KINDERGARTEN AND
FIRST EIGHT GRADES

1910

TRAINING DEPARTMENT
WESTERN STATE NORMAL SCHOOL
KALAMAZOO, MICHIGAN
# SCHOOL CALENDAR FOR 1910-1911

(Holidays are Printed in full-face type)

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|           |           |        |
|           |           |        |
Western State Normal School

ANNOUNCEMENTS

FOR 1910-11

1910

WINTER TERM

Tuesday, January 4. ..................................... Winter Term Begins
Tuesday, February 22. .................................. Winter Term Begins
Tuesday, March 25. ....................................... Winter Term Begins

SPRING TERM

Tuesday, April 5. ....................................... Spring Term Begins
Sunday, June 19. ....................................... Baccalaureate Address
Monday, June 20. ......................................... Class Day
Tuesday, June 21. ....................................... COMMENCEMENT

SUMMER TERM

Monday June 27. ....................................... Summer Term Begins
Friday, August 5. ....................................... Summer Term Closes

FALL TERM

September 19. ........................................ Training-School Begins
September 26. ........................................ Normal School Begins
Friday, September 30. ................................. Faculty Reception to Students
Thursday, November 24. ............................... Thanksgiving Recess
Friday, November 25. ................................... Thanksgiving Recess
Friday, December 16. ................................... Fall Term Closes

1911

WINTER TERM

Tuesday, January 3. ..................................... Winter Term Begins
Friday, March 24. ....................................... Winter Term Closes

SPRING TERM

Tuesday, April 4. ....................................... Spring Term Begins
Sunday, June 18. ....................................... Baccalaureate Address
Monday, June 19. ....................................... Class Day
Tuesday, June 20. ....................................... COMMENCEMENT

SUMMER TERM

Monday, June 26. ....................................... Summer Term Begins
Friday, August 4. ....................................... Summer Term Closes
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## KINDERGARTEN

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FACULTY OF THE
WESTERN STATE NORMAL SCHOOL
1910-11

B. WALDO, A. M., President ........................................... 410 Locust St.

MELIA ANDERSON ................................................................
Second Grade, Training-School

C. BARNUM ........................................................................ 709 W. Lovell St.
First Grade, Training-School

BRALEY, A. B. ...................................................................... 101 Michigan Ave.
Librarian

MELIA ANDERSON .............................................................
Second Grade, Training-School

C. BARNUM ........................................................................ 709 W. Lovell St.
First Grade, Training-School

THER BRALEY, A. B ..................................................
Librarian

NEST BURNHAM, A. M ................................................
509 S. Rose St.

Rural Courses

CHILDRE DAVIS ..............................................................
301 Woodward Ave.
Assistant in Physical Training

A. M. DENSMORE ............................................................
423 W. Lovell St.
Director of the Training-School

MARY ENSFIELD ..............................................................
R. F. D. 8
Rural Observation School

E. Fox ..............................................................................
707 W. Vine St.
Mathematics

ANNA L. FRENCH ................................................................
309 Burr Oak St.
Assistant Librarian

ICY GAGE ...........................................................................
720 Academy St.
Kindergarten

MILIA GOLDSWORTHY .....................................................
105 W. Dutton St.
Public School Art

CASSIE B. GOODRICH ....................................................
518 Pearl St.
Third Grade, Training-School

ROY H. HARVEY, PH. D ...................................................
603 Academy St.
Biology

UCIA HARRISON ............................................................... 520 W. Lovell St.
Sixth Grade, Training-School

J. L. JONES, A. B .............................................................
1213 Grand Ave.
English Language and Literature

ATIE LEE JONES ..............................................................
729 Academy St.
Physical Training

ATHARINE KOCH, B. S .....................................................
527 W. Cedar St.
Assistant, Rural School Courses

RAY LONGWELL, A. B .................................................... 418 Hornbeck Ct.
History

*Absent on leave.
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<td>Frank A. Manny, A. M.</td>
<td>Education and Normal Extension</td>
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<td>Alice L. Marsh, B. S.</td>
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<td>927 Walwood Place</td>
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<td>Florence Marsh</td>
<td>Public School Music</td>
<td>927 Walwood Place</td>
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<td>Mary M. Master</td>
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<td>727 Elm Place</td>
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<td>Nellie M'Connell</td>
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<td>425 Pearl St.</td>
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<td>William McCracken, Ph. D.</td>
<td>Chemistry and Physics</td>
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<td>Katherine Mulry</td>
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<td>Maude Parsons, A. B.</td>
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<td>Domestic Science</td>
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<td>Janette Reitler</td>
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<td>Marie Sayles</td>
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<td>Katherine Shean</td>
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<td>218 Douglas Ave</td>
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<td>Kate I. Smith</td>
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<td>I. H. Wood, A. M.</td>
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<td>Anne C. Wright</td>
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<td>729 Academy St</td>
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Scope of the School

The Training Department of the Western State Normal School is located in the building south of the main administration building. In it are maintained a kindergarten and eight grades. Children are admitted to the grades for which they have qualified in public schools on presentation of report cards properly signed, whenever vacancies occur. The number of children admitted to each grade is limited to thirty. A child finishing the eighth grade of the Training School may enter the Normal Preparatory Department, which admits to the regular Normal certificate courses, or he may, if he so desires, enter the city High School, without examination. The Training School is maintained for two purposes,—first, to conduct the best grade work possible under the most favorable conditions of a fine modern building, thoroughly equipped, with teachers of the best training in charge of each grade; second, to give to the students in the Normal who are to go into the grades of the public schools the following year as teachers the advantages of work and observation under expert guidance. Each grade is in charge of an efficient critic teacher under whose careful supervision the Normal students in their senior year take classes and observe work.

Curriculum

The course of study which follows outlines in some detail the work planned for the grades. The effort has been made to select subject-matter which will give wholesome activity, physical and mental, to the children of each grade. The emphasis will be upon thorough, honest achievement in all lines of work. Modern education recognizes the value of practical handwork in developing qualities of independence, concentration, and persistence, as well as general practical intelligence and morality. It is also recognized that with the lessening variety of home duties for the children, the necessity has increased for manual activities in the schools. The Training School building is equipped with special facilities for manual and physical training. In the building are a large kitchen, dining-room, sewing-room, clay-modeling room, a manual training room, a dark room for work in photography, and a room for printing and book binding. It is believed that these rooms will be the centers of school activities. The Training School will endeavor to have the children carry on as many real occupations as possible, relating much of the work of the various subjects of the curriculum to the handwork. The kitchen laboratory is a center of interest in all grades, as is the shop. Much of the practical arithmetic involving measures, fractions, etc., grows out of these lines of work, as well as problems involving judgment, patience, and bodily control. Both boys and girls in grades below the sixth have cooking during some part of the year, and the girls in sixth and eighth grades take a practical course in cooking while the boys have shop work. Each child should be provided with a suitable apron for cooking,—for girls a large white apron with bib, and for boys a plain white apron in butcher's style.
The regulations of the city health department relative to contagious diseases, etc., are followed as in the public schools. Eye and ear tests are made in each grade, and careful watch is kept of the general health of the children by the critic and the teacher of physical training. In the grades above the third, systematic instruction in hygiene is given. Emphasis is placed upon outdoor sport. There is ample playground of the natural and best kind in the woods and on the hillside near the building. The basement contains a play-room, 25 feet wide by 48 feet long, which is equipped with flying rings, climbing ropes, ladder, swings, and light apparatus. Three periods weekly are devoted to directed physical training, the work being in charge of one of the directors of physical training in the Normal School. Parents are urged to assist in making the apparatus work more possible for the girls in the grades above the primary by providing a school dress with bloomers under the skirt. All children are required to have tennis shoes or sandals.

Report cards will be sent home each term in order that the parents shall know what progress the child is making. The danger of transferring the interest from the work to the mark is fully recognized, and the cards will express the values of the child’s effort and spirit of cooperation as well as the relative value of his attainment in the various subjects. Classes will remain under the charge of one critic for an entire year, but individual promotions will be made whenever a child shows readiness to advance more rapidly than the group with which he is working.

The terms will coincide with those of the Normal School, except that in general the Training-school will open the third Monday in September, one week before the opening of the Normal School session. A four-weeks’ summer term will be maintained, half-day sessions only. Attendance upon this is optional, and the work is determined by the interest of the class rather than by any formal course of study. The length of the daily sessions during the school year in the various grades is as follows:

- First Grade: 9:00-11:15 A.M.; 1:30-3:15 P.M.
- Second Grade: 9:00-11:30 A.M.; 1:30-3:15 P.M.
- Third Grade: 9:00-11:40 A.M.; 1:30-3:15 P.M.
- Fourth to Eighth, inclusive: 9:00-11:45 A.M.; 1:30-3:15 P.M.

In the winter term the afternoon sessions will begin at 1:15, as many children are obliged to bring their lunches during this term. On days when the children have cooking and manual training, the afternoon session will extend to 3:30 in the primary grades and 4:00 in the upper grades in order that there may not be too great interference in the regular order of classes.

Provision is made for a suitable place in which the children may eat lunches, and for supervision throughout the noon hour, and those living at considerable distance will no doubt find it necessary to bring the same in inclement weather. However, we believe it is much better for the health of the child for him to walk home at noon, and
GENERAL INFORMATION

we hope that parents will cooperate with us to reduce lunch-bringing to a minimum.

No regular assignment for home work is made in grades below sixth. Many books for supplementary reading in line with history and geography are loaned to the children for home reading and such drill work as multiplication tables and lists of special words are often given to the children in order that frequent repetition at home may assist the memory process. The work in the upper grades requires more study on the part of the pupils, and here it is necessary to assign a period of home study daily. Parents are requested to cooperate with the school by arranging for the convenient carrying out of this work.

No tuition fee is charged. The language and number paper, drawing pencils, etc., and much working material are furnished without fee. A charge of twenty-five cents a term will be made to cover in part the expense of materials for handwork and other incidents which occur during the school year, which are for the child's own use.

Supplies

The entire Training School assembles in the rotunda for Assembly and General Exercises 10:20 A.M. The school always welcomes visitors to these exercises. They usually consist of an interchange of experience, different grades taking charge at different times. Special days, such as Thanksgiving, Halloween, Valentine's Day, etc., are celebrated at this time. In addition to the assembly exercises certain festival days are observed in more general celebration involving the entire school. This year (1909-1910) the two important festivals will be Christmas and a Spring Festival. The homes are invited to share these celebrations with the children.

Cooperation with the Home

The members of the Training-school faculty wish to know the parents and in every way to cooperate with them for the best interests of the children. Parents are urged to visit the regular classes frequently and to confer with the critics and director whenever any question arises affecting the progress of the child.

DIRECTIONS TO STUDENT TEACHERS

Required The amount of required work in teaching for each student in the general life certificate course is 36 weeks. Of this, 24 weeks (Teaching 102-3) are taken in the first term following the course in General Method (Teaching 101). This enables the student to spend sufficient time in the grade in which he is working to become familiar with the typical problems of the grade. The supervision is close. The time spent in actual teaching is four hours each week, the student making such lesson plans as the critic and director require. The other 12 weeks of credit given for approximately eight hours weekly of what may be called laboratory work, i.e., observation, and attendance upon critic meetings and conferences. Each student in this term of practice reserves the 3:15 period daily for such conference. During the second term more independent work is expected. The assignment will be to a different grade from that of
term so that the student teachers may have the advantage of a new problem, and he will be expected to work out subject-matter with reference to the needs of the class with much less definite help than during the first term.

Students in this term's work should reserve the 3:15 period on Tuesday and Thursday for consultation. In addition to the supervision of the critics and director of practice, suggestion and criticism are given by the heads of departments, who visit classes and consult with students and critics whenever practical in connection with their Normal School duties.

Students are privileged and expected to take part in all the special features of the Training-school work. School festivals, parents' receptions, and other special exercises are important factors in the work of the grades, and all who work in the department are required to assist in planning and carrying out these exercises. Some of the most efficient work done by the student teacher is work done in incidental ways with the children outside of the class period. Such interest manifests the true teaching spirit. Students should observe carefully the following:

1. Enrollment for teaching will be made three weeks before the opening of the new term (except in the fall) in the office of the director of the Training-school.

2. Students in special departments (Kindergarten, Art, Music, High School, etc.) should arrange with the heads of departments for their special teaching before reporting to the director of the Training School. Enrollment should be completed promptly, however, as in regular grade teaching.

3. Settle programs for the coming term before enrolling for teaching, taking sure that a sufficient number of hours are reserved for teaching and inference. The hours for the sessions of the Training-school grades are indicated in a previous paragraph.

4. Make no change in your program without at once reporting the same to the director of the Training-school.

5. Watch the Normal School bulletin board for the list of assignments. Report promptly to the critic of the grade to which you are assigned and arrange a conference hour.

6. Visit the grade, or class, which you are to teach, as often as possible during the remaining weeks of the term; learn the names of the children; take note of all points in teaching and control which may help you. Enter the room from the first as a worker, not as a guest; hence, never keep on its or wraps.

7. At least one lesson plan will be required before the opening of the term so that the student may be ready to begin his class without too great a loss of time to the children. Students should plan so that this may be carried out promptly.
Course of Study for the Training School

The following course of study has been organized by the critics and director of the Training-school and the heads of departments of the Normal School. The work is so interwoven that individual credit can not be given. Some of the subject-matter is worked out in more detail than the rest. This is due to the fact that some of the outlines have been tested in the practical work of the school for a longer time, as in the case of the history; or that the heads of departments have had more definite plans which have been embodied in the Training School outlines. The course is intended primarily for the use of student teachers, not for outside distribution. The hope is to make the present course a basis from which can be worked out a much more satisfactory outline in the near future.

Kindergarten

The so-called isolation of the kindergarten is fast disappearing as the school process and life process are becoming more nearly one. If we believe that the curriculum is the medium by which the child is helped to achievement, then subject-matter must shape itself to interpret experience.

The school is one of the institutions of society organized to assist the individual to this end, and the kindergarten, as one phase of this institution, must free itself from the fetishism of its cult and gain a larger vision of its function and relation to the whole process of education. The kindergarten, then, must be thought of as a society of little children engaged in play leading to experiences which the teacher aims to interpret and organize, a place where opportunity is given for certain forms of self-expression, such as response to social stimuli, construction, communication through conversation, story, rhythm, and song.

The child coming to us from the home needs to gain adjustment to a new social whole. Much of his experience is crude and unorganized. It shall be the aim, therefore, to suggest through our curriculum or plan of work the simplest and freest interpretation of those needs and interests which are of immediate value to the child or which point the way to further organization and development. That which is valuable to the child at this time centers in the home and neighborhood life, his experience is bounded by what father, mother, and other members of the household are doing, and those nature experiences which he is observing in the climatic changes of the year. This, together, with the child’s interest in animal life, will make up the subject-matter of the kindergarten. To organize it, to enrich it, and amplify it will be the constant aim.
I. GENERAL SUBJECT-MATTER

FALL TERM

October and November.—Activities of the home and nature that center about fall time needs of man and animals.

December.—Christmas joys.

SOCIAL SUBJECT-MATTER:

- Food—Household cooking.
  - Daily needs (meals).
  - Special needs (canning).
- Need of fire—Stoves and fuel.
- Grocery store—Delivery wagons.
- Farmer’s fruit and vegetable wagons.
- Farm as source of supply.
- Coal man, supplying fuel for both cooking and heating home,—coal wagons, coal yards.

Holidays—Halloween, Thanksgiving.

(These fall naturally in with fall time experiences, and the latter is the outgrowth of the child’s attitude of appreciation that both man and animals are abundantly cared for. At this time, we give expression to this in the form of a simple “Thank you.”)

- Signs of Christmas along the streets,—shops, stores taking on festive appearance.
- The planning and making of gifts for loved ones.
- Santa Claus and Christmas tree.

NATURE SUBJECT-MATTER:

- Birds and squirrels preparing for winter.
- Excursions to gather leaves, fruits, seed pods, cocoons.
- Care of chickens, dogs, cats, cows, horses during winter.
- Making of a winter garden.
- Jack Frost, and snow flakes tell us Christmas is coming.

Excursions—To the grocery store, to coal yard, to collect nature materials.

To the toy stores at Christmas.

WINTER TERM

GENERAL SUBJECT—The building and furnishing of the home as the center of warmth and comfort for the family. During this shut-in time we shall center our activities again in the home, but this time from a different standpoint—the building and making of the home to be realized in the doll house.

First Phase—The carpenter as builder of the house.

Second Phase—Added protection against cold.

- Storm doors and windows.
- Well-filled coal bins, stoves and furnaces.

Third Phase—Warm and attractive furnishings.

SOCIAL SUBJECT-MATTER:

- Different kinds of houses and barns for protection.
- Need of being well built—good roof, strong walls, etc.
Storm doors and windows. Furnaces, stoves, coal.
Warm floor covering. Extra bedding.
Furniture fitted for use of family in kitchen, dining-room, bedroom, and living-room.
Excursion—to see the carpenter at work.

**NATURE SUBJECT-MATTER:**
Outdoor sports,—sliding, coasting, skating.
Need for warm wraps,—coats, hoods, stockings, caps, mittens, leggings, etc.
Sleighbing, snow men, snowballs.
Animals,—pigeons and winter birds which need protection.

**SPRING TERM**

**GENERAL SUBJECT**—Spring time activities as affecting the home and play life of the child.
The Easter thought serves as a point of departure in this plan. All nature taking on new, fresh appearance, speaks to the child of a great change that is reflected everywhere in the life about him.

**SOCIAL SUBJECT-MATTER:**
New spring clothes,—dresses, hats.
Dry-goods store and millinery store.
Mother's work of sewing for her family.
Putting away of winter clothes as contrasted with the fall experience.
Trunks, boxes, clothes closet.
Cleaning of yards, making of garden, vegetable markets.
Making of children's playthings,—balls, tops, marbles, jumping ropes, etc.

**NATURE SUBJECT-MATTER:**
Grass, leaves, and flowers,—nature's new garb.
Bird families, chicken families.
Planting of seeds.
Children's spring games.
Excursions—to gather flowers, lay out gardens, etc.

**II. CIRCLE DRAMATIZATION**

**FALL TERM**

Playing house, and store.
Delivering groceries.
Farmer selling pumpkins, apples, and pop corn.
Playing coal man.
The toy shops and toys.
Santa Claus and his reindeer.
"The Night before Christmas."

**WINTER TERM**

Activities of the carpenter,—sawing, planing, hammering, and delivering lumber.
Clearing sidewalks of snow.
Play snow man and snowball.

**Spring Term**

Playing store.
Choosing spring dresses and hats.
Sewing activities in the home.
The rabbit and chicken families.
Mother Goose songs.

**III. Handwork**

**Fall Term**

**Gifts:**
- Second gift for kitchens, wagons.
- Third and fourth gifts for stoves.
- Sixth gift for grocery store.
- Fifth gift for barns, bird houses, chicken coops, etc.
- Pegs and peg boards for coal yard.
- Fifth and sixth gifts to make stores and windows for Christmas.
- Third and fourth gifts to make chimneys and Santa Claus’ sleigh.

**Construction:**
- Make boxes for seeds.
  (See Nature Subject-matter.)
- Fitting up kitchen in shoe box.
- Make grocery, coal and farmers’ wagons (boxes and stiff paper).
- Barns for horses and cows.
- Baskets for grocery man and farmer.
- Toys for Christmas.
- Gifts for father and mother.
- Decoration for room and Christmas tree.

**Art:**
- Representative drawing of household activities.
- Simple poster of grocery store in fall time.
- Simple fall border design with leaves and fruits.
- Painting and drawing of nature materials—flowers, fruits, leaves.
- Clay to model dishes, fruits, vegetables.
- Drawing and coloring of toys for Christmas room decorations.
- Illustrating Christmas stories and winter scenes.

**Domestic Experience:**
- Cooking breakfast food, making jelly, canning, washing and wiping dishes, washing and drying dishtowels.
- Make Christmas candies.
  (All domestic experience at this period is gained by the child assisting the teacher as he would his mother at home.)

**Sand**—Large opportunity for free play in the sand, making sand cakes, playing, baking, and cooking.
KINDERGARTEN

Winter Term

Gifts—Building blocks to make houses, barns, sleighs, sleds, beds, and all household furniture.

Construction:
- From heavy paper make houses and barns.
- With wood make simple furniture.
- Use ribbon bolts for stoves.
- Weave rag rugs for floors.
- Weave blankets from heavy carpet warp.

Art:
- Clay: carpenters' tools, snow men, snowballs.
- Drawing, folding, cutting, illustrating outdoor sports of winter.

Domestic Experiences:
- Make snow ice-cream.
- Wash curtains for house, or sew to make new ones.
- Scrub floors.
- Paper walls, making the paste, etc.

Sand:
- Hills to slide and coast on.
- Play digging snow, clearing sidewalks, etc.

Spring Term

Gifts:
- Fourth and sixth gifts for store windows showing spring goods.
- Fifth gift for chicken houses and fence in the yard for rabbit.
- Pegs and peg boards for marking off gardens and flower beds.

Construction:
- Use wood and heavy paper to make trunks to store away winter clothing.
- Making different kinds of dolls and clothing for them in spring dresses and hats.
- Making of garden tools, wheelbarrows.

Art:
- Make poster of dry-goods store window showing spring dresses.
- Drawing and painting of signs of spring out-of-doors, trees, grass, and flowers.
- Clay: model vegetables, tools for gardening, etc., balls, tops, marbles.

Domestic Experience:
- Sewing doll clothes.

Sand:
- Free play.
- Making gardens

Garden Work:
- Planting seeds.
- Making flower beds and vegetable gardens.
IV. LITERATURE

FALL TERM

(October and November)

NURSERY RHYMES:
Sing-a-song of Sixpence.
Little Miss Muffet.
Jack and Jill.
Humpty Dumpty.

ACCUMULATIVE TALES:
Henny-Penny.
Old Woman and Her Sixpence, etc.

STEVenson’S POEMS:
The Rain Is Raining All Around.
My Shadow.

(December)

STORIES:
The Fir Trees and the Christ Child.
The Night before Christmas.
The Shoemaker and the Elves.

RHYMES:
Little Jack Horner.
Bye Baby Bunting.

FINGER PLAYS—Those including family and their Christmas stockings.

WINTER TERM

STORIES:
The Man Who Built His House on a Rock. (Bible.)
Three Little Pigs.
The Bell of Atri (Adapted).
The Nuernberg Stove (Adapted by Wiggins).

SPRING TERM

STORIES:
Little Dog with the Green Tail.
Black Sambo.
The Man Who Sold Red Caps.
The Wind and the Sun.

V. MUSIC

FALL TERM

In the kindergarten music falls naturally into three phases. Rhythm is given a most prominent place as a basis of musical sense, through the marches, skips, and characteristic steps. Melody is gained through the singing of the
songs, harmony through the forms of good music, played during rest period, bows, and quiet time for prayer.

Suggested Harmonies:
To a Wild Rose—MacDowell.
Melody in F—Rubenstein.
Morning Mood—Grieg.
Spring Song—Mendelssohn.
Spinning Song—Ellmenreich.

In all song work care is taken to assist the child to a sense of pitch through street calls, nursery rhymes, etc.

Songs:
Songs of Greeting—Smith, Gaynor, Hill.
Rain Song—Brown.
Grocery Boy—Brown.
Mister Duck and Mister Turkey—Gaynor.
Animal Songs—Niedlinger.
Thanksgiving Song (Lilts and Lyrics—Gaynor).
Toy Shop (Holiday Songs—Poulsso).
Santa Claus Is Coming—Gaynor.
Christmas, Merry Christmas—Poulsso.
Once within a Lowly Stable—Gaynor.

Rhythm:
Plain, side, and cross skips developed by children.
Running like squirrels.
Horses pulling heavy loads.
Horses with empty wagons.
Light-footed reindeer.
Rocking-horse skip.
Skips developed by children.

Winter Term

Songs:
Family Songs—Carpenter and Hill.
Skating Song—Gaynor.
Snow Man—Niedlinger.
Sleighing—Brown.
Merry Snowflakes—Hill.
Jack Frost—Gaynor.

Rhythm:
Contrast "work" horses with "cutter" horses.
Shingling a roof.
Shingle-nail hammer (¾ time).
New skips developed by children from simple old ones.

Spring Term

Songs:
Easter Songs—Smith.
See the Little Bunny—Niedlinger.
COURSE OF STUDY FOR THE TRAINING SCHOOL

The Swing—Brown.
Sunshine—Brown.
Springtime, Flowertime—Brown.
Mother Goose Songs (from Crownishshield).

RHYTHMS:
Hopping rabbits.
Spinning tops.
Bouncing balls.
"To Market, to Market."

VI. NUMBER

Ample opportunity is afforded in the kindergarten to build up numbersense. Groups of four, five, and six are easily recognized in choosing for games. In handwork through classification and arrangement of material number is unconsciously handled and in rhythms he is ever sensing time and number.

VII. PHYSICAL TRAINING

FALL TERM

RING PLAYS:
"I Went to Visit a Friend One Day."
"Farmer in the Dell."
"Round, Round, Merry are we
Going around our Christmas tree."

OUTDOOR GAMES:
"Cat and Mouse."
Swings and see-saws.
Ring plays out-of-doors when weather permits.

WINTER TERM

RING PLAYS:
Spin the Platter.
Going to Jerusalem (sense game).
Hide the Thimble (sense game).
Pease Porridge Hot.
Other games played at home in long winter evenings.

SPRING TERM

RING PLAYS:
"Let Us Make a Garden."
"Round We Go."
"Lads and Lasses."
Drop the Handkerchief.
Cat and Mouse.

OUTDOOR GAMES:
All of the above played out-of-doors whenever weather permits.
Grade I

I. GENERAL SUBJECT-MATTER

These subjects are suggested by the child's interests in the activities about him. It is the aim to lead him to observe more closely and to help him to organize his knowledge, observations and experiences.

FALL TERM

HOME LIFE—Preparation for winter. Compare with nature's preparation. (See Nature Study.)

Food—Sources—Farm; grocery store; fruit and vegetable market; milkman. (See Handwork, Excursions, and Games.)

Preparation—(See Handwork.)

BLACKSMITH—Suggested by study of horse in connection with farm. (See Nature Study, Excursion, Stories and Poems, Games and Handwork.)

HOLIDAYS—Halloween.
    Thanksgiving.
    Christmas—Santa Claus, his home and work.
        Christmas Tree.
    Children's part in the Christmas giving. To help them realize that the pleasure of the season is in giving as well as in receiving. (See Handwork, Stories and Poems, Games.)

EXCURSIONS—To a farm.
    To a grocery store.
    To a fruit and vegetable market.
    To a blacksmith shop.

WINTER TERM

THE CHILD'S HOME—A place of shelter.
    The need of shelter.
    How the house is built.
        Carpenter.
        Lumberman. (See Nature Study.)
    Other helpers.

THE FURNISHINGS IN THE CHILD'S HOME.
    The need of furnishings.
    The kind of furnishings.
    How and where the furnishings are secured. (See Nature Study and Excursions.)
THE CHILD'S CLOTHING.
The need of clothes.
The materials.
Woolen.
Cotton.
Silk.
(See Nature Study.)
How procured.
Child's mother.
Dry-goods store.
Shoemaker.
(See Excursions.)

THE ESKIMO: HOME AND HOME LIFE. That the child may have something with which to compare his own home and home life, a simple primitive home is studied.
The Eskimo's home.
The furnishings in the home.
The activities in the home.
Securing food.
Preparation of food.
Securing materials and making of clothes.
Games.
(See Language, Handwork, Reading, Stories and Poems.)

References on the Eskimo:
Andrews, Jane, Seven Little Sisters.
Wade, Our Little Eskimo Cousin.
Smith, Eskimo Stories.
Peary, Snow Baby.
Peary, Children of the Arctic.
Strong, All the Year Around—Part II.
Dopp, The Later Cave Man.
George, Plan Book—Winter.
Chance, Little Folks of Many Lands.
U. S. Ethnological Report.

TIME—Suggested by the coming of the New Year.
Emphasis upon punctuality. (See Handwork, Stories and Poems.)

HOLIDAYS—Washington's Birthday.
Valentine's Day.
(See Stories and Poems, Handwork).

EXCURSIONS—To observe carpenter at work.
To a lumber yard.
To a furniture store.
To a cabinet-maker.
To a dry-goods store.
To a shoemaker.
HOME LIFE:
Affected by return of spring.
Activities in the home.
The food.
The child's clothing.
The child's play and games.
Compare with fall and winter conditions.

THE SECOND PRIMITIVE HOME—(See Winter Term IV).
The Indian Home and Home Life.
The Indian shelter.
The furnishings of the home.
The activities in the home.
Securing food.
Preparation of food.
Clothes—Securing materials and making.
Games.
(See Language, Stories and Poems, Handwork, Reading.)

References on the Indian:
Pratt, Legend of the Red Children.
Starr, American Indian.
Wilson, Myths of the Red Children.
Chase, Children of the Wigwam.
Chance, Little Folks of Many Lands.
U. S. Ethnological Report.

II. HANDWORK

This work is chosen to satisfy the child demand to be doing something. The aim is to lead the child to recognize his power over materials and the possibilities in material.

ART—Mediums: Water-colors, black and colored crayons, clay, paper cutting.

Drawing and Painting—Subjects chosen from the interest developed in Nature Study, stories and general subject-matter. Illustration of stories, games, and occupations. Emphasis is upon free expression. During the year develop through the work ideas of good placing of the horizon line, placing and size of near and far objects in relation to it, relative size of objects, and action of figures and animals in silhouette.

Color—Through the work with water-color and crayons, children learn to recognize and name primary and secondary colors, and make secondaries.

Design—Unconscious exercising of instinct for rhythm, balance and order. Motives taken from nature and used in decorating book covers, Christmas gifts, Indian suits, designs for wall-paper for doll houses, etc. Simple rhythmic borders cut from paper and mounted.
Clay—Free modeling of fruits, vegetables, animals, etc., and utensils and dishes used in the child's home. The child should experiment with material. The work with clay is much used in seat periods.

Paper Cutting—To illustrate stories and to represent leaves, vegetables, fruits, blacksmith’s tools, and whatever is of interest at the time; also cutting paper dolls and their dresses and coloring them. Mount some of these cuttings to form pictures. No cutting is done of a number of objects on a ground line as this develops a wrong idea of perspective. All objects in the story are cut separately, and then assembled, and mounted in the right relation to the horizon line.

Picture Study—See list on page 154. Picture study occurs in both Language and Art classes, at least one or two periods each month being devoted to it.

Cardboard—Objects which the child will enjoy playing with, such as farm house, barn, carts, and doll house furniture.


Cooking—The aim is to let the child do some of the things that he sees being done around him and through these experiences to form right habits of doing work. Some of the cooking is done as group work in the grade room, while some problems are carried out individually in the cooking room. Simple problems are given, such as apples, cereals, popcorn.

Housekeeping—Dusting, washing and ironing the dust cloths and towels, watering plants, and the general care of the room.

Woodwork—The chief problem which has been attempted in woodwork has been the making and furnishing of individual playhouses. The houses are made from wooden boxes; the furniture constructed in the simplest way. The aim is to gratify the child’s interest in tools, particularly the hammer and saw.

General Construction Work:

Christmas Gifts.

Sand Table—Much free play in the sand and little highly developed illustrative work. However, the children lay out a farm, build an Indian village, and make other temporary use of the sand table for illustrative purposes. Build Eskimo igloo in the snow out-of-doors.

Making digging sticks, labels, etc., for use in garden.

Much other work will be suggested from time to time by the interest of the grade.

III-IV. GEOGRAPHY AND NATURE STUDY

The child’s interest in and close relation to his natural environment suggest these subjects. It is the aim to have him become better acquainted with his natural surroundings and to feel his kinship with nature by observ-
ing the influence of the change of season upon plant and animal life as well as in his own home.

**Fall Term**

**Nature’s Preparation for Winter:**
- Migration of birds.
- Leaf fall.
- Fall flowers.
- The squirrels. (Observe pet squirrel in class room.)

**Recognition of Common Fall Flowers**—Such as goldenrod and asters, and of the leaves, near the school and home.

**Observation of Caterpillars.**

**Animals**—Suggested by study of farm, considered in their relation to man as pets and servants: cow, horse, dog, hen and chickens.

**Bulbs**—Planting of some in pots for winter blooming and in beds out-of-doors for spring blooming.

**Leaves and Flowers, Nuts and Fruits**—Gathering of.

**Evergreens**—Found nearby, suggested by observation of Christmas tree. Compare with trees observed in the fall. Name the evergreens, making no attempt to have children learn to distinguish species. Excursion to observe evergreens.

**Winter Term**

**Winter Weather:**
- Its effects upon the child.
  - His habits.
  - His plays.
  - His shelter.
- Its effect upon birds and animals.
  - Their habits.
  - Their shelter. Study the bluejay and the sparrow. Discuss winter life of squirrel. Observe pet squirrel in schoolroom.

**Snow and ice.**
- Value.
- Beauty.

**Care of Pets**—Hen and chickens, squirrel, goldfish, with observation of their habits.

**Flower Seeds**—Planting for early spring home blooming. Each child plant his own seeds.

**Sheep**—Its covering, home, care of.

**Silkworm**—Watch its life history, studied in connection with study of child’s clothing, now or in spring.

**Wind**—Child’s idea of it. Relation of wind to child.
- Work of wind.

**Spring Term**

**Effect of Spring**—Upon child’s outdoor surroundings.
SEASONAL CHANGES—Appearance of the earth, trees, etc.
Length of day, return of birds, blooming of the flowers.

SILKWORM—Observation of and care of same.

COMMON WILD FLOWERS—Recognized and named, such as dandelion and violet.

COMMON BIRDS—Robin and woodpecker.

BULBS—Watch growth of same planted in fall.

GARDEN—Condition of soil. Observation of seeds and planting of seeds, flower and vegetable. If possible, each child have individual bed, and plant flower or vegetable seed as he chooses.

V. STORIES AND POEMS

The stories and poems are selected to give the child pure enjoyment. When there is a choice between several equally good stories, the need in other lines of work is a determining factor in the selection. These stories and poems are told or read to the children. In the latter part of the year, however, they become familiar with many others in their own reading.

FALL TERM

SELECTIONS ARE MADE FROM THE FOLLOWING STORIES AND POEMS:

Tiny—Andersen.
Town Musicians—Grimm.
Elves and the Shoemaker—Grimm.
Tom Thumb.
Proserpine.
Ant and the Grasshopper.
The Anxious Leaf—H. W. Beecher. (Morning Talks—Wiltse.)
Coming and Going—H. W. Beecher. (Morning Talks—Wiltse.)
Adventures of a Brownie—Mulock.
Who Gives Us Our Thanksgiving Dinner?—E. Poulsson. (Kindergarten Review.)
Piccola—Thaxter. (Child’s World—Poulsson.)
Santa and the Mouse. (Child’s World—Poulsson.)
St. Christopher—Hofer. (Christ Tales.)
The Saint and the Symbol—Eugene Field.
Why Do Bells at Christmas Ring?—Eugene Field.
The Night before Christmas—Moore.
The Duel—Eugene Field. (Poems Every Child Should Know—Burt.)
Owl and the Pussy Cat—Lear.
Leaves at Play—F. D. Sherman. (Little Folks’ Lyrics.)
October’s party. (Nature Verse—Lovejoy.)
We Thank Thee—Emerson. (First Year Book—Thomas.)
Twinkle, Twinkle, Little Star—Jane Taylor. (Children’s Hour, Vol. VI—Tappan.)
Back of the Loaf—Maltbie Babcock.
Little Drops of Water.
Goldenrod and Asters. (Nature Myths—Cook.)
MOTHER GOOSE RHYMES TO BE MEMORIZED:

Here Sits the Lord Mayor.
There Were Two Blackbirds.
What Are Little Boys Made of?
Diddle, Diddle, Dumpling.
Hush-a-Bye Baby.
Ding, Dong, Bell.
Hey, Diddle, Diddle.
Great A. Little a.
A. B. C. Tumble down D.
The North Wind Doth Blow.
Little Bo Peep.
Pussy Cat, Pussy Cat.
Little Boy Blue.
Little Jack Horner.
Jack and Jill.

To BE READ:
I Had a Little Pony.
Three Little Kittens.
Babes in the Woods.

WINTER TERM

SELECTIONS ARE MADE FROM THE FOLLOWING:

Peter Rabbit—Beatrix Potter.
The Snow Baby—Peary.
Seven Little Sisters—Jane Andrews.
The Fox and the Grapes—Æsop’s Fables.
The Boy and the Nuts—Æsop’s Fables.
The Thirsty Crow—Æsop’s Fables.
The Sun and the Wind—Æsop’s Fables.
The Boy Who Cried Wolf—Æsop’s Fables.
The Hare and the Tortoise—Æsop’s Fables.
The Lion and the Mouse—Æsop’s Fables.
The Tar Baby.
The Pig Brother—Laura Richards. (How to Tell Stories—Bryant.)
All the Year Round. (Child’s World.)
Busy Bluejay—O. T. Miller. (Children’s Hour.)
Prince Harweda—Harrison. (Story Land.)
Wizard Frost—F. D. Sherman. (Little Folks’ Lyrics.)
Snowbirds’ Song—F. C. Woodsworth. (Children’s Hour. Vol. VI.)
Hop o’ My Thumb—Watts. (Poems Every Child Should Know.)
Four Winds. (Song of Hiawatha—Longfellow.)

MOTHER GOOSE RHYMES TO BE MEMORIZED:
Pease Porridge Hot.
Once I Saw a Little Bird.
Higgledy, Piggledy.
Hickory, Dickory, Dock.
Lady Bird, Lady Bird.
Three Blind Mice.
One, Two, Three, Four, Five.
There Was an Old Woman.
Crooked Man.
Tom, Tom, the Piper's Son.

To Be Read:
Simple Simon.
Sing a Song of Sixpence.

SPRING TERM

Selections Are Made from the Following:

Queen Bee—Andersen.
Five in a Pod—Andersen.
Six Swans—Grimm. (Children's Hour, Vol. 1.)
Hansel and Grethel—Grimm. (Children's Hour, Vol. 1.)
Frog Prince—Grimm. (Children's Hour, Vol. 1.)
Tongue Cut Sparrow—Yei Theodora Ozaki. (Children's Hour, Vol. 1.)
The Camel and the Pig—Indian Folk Tale. (Children's Hour, Vol. 1.)
Old Pipes and the Dryad—Stockton.
Lessons in Faith—Gatty. (Child's World.)
How the Robin Got His Redbreast—Cooke. (Nature Myths.)
The Baby Robin—O. T. Miller. (Children's Hour.)
The Comical Crow Baby—O. T. Miller. (Children's Hour.)
Phaeton and Apollo.
Hiawatha's Childhood—Longfellow.
The Song of the Brook—Riley.
May—MacDonald. (Tree Top and Meadow.)
April. (Tree Top and Meadow.)
Spring Heralded. (Aldine Third Reader.)
My Shadow—Stevenson. (Child's Garden of Verse.)
Bed in Winter—Stevenson. (Child's Garden of Verse.)

Mother Goose Rhymes to Be Memorized:
Jack a Nory.
Old Woman Who Lived in a Shoe.
Little Tommy Tucker.
Hark, Hark, the Dogs Do Bark.
Humpty, Dumpty.
One, Two, Buckle My Shoe.

To Be Read:
Little Robin Redbreast.
I Saw a Ship a Sailing.

VI. READING

The stories are selected because the children enjoy them. In the first stories the sentences are short and there is much repetition. These first stories are read from printed charts. When the child has gained some
familiarity with printed words and can follow from line to line, he reads the stories from the book. As he gains power in reading, the reading from the charts is discontinued. At the end of the year the advanced group should be able to read simple stories with considerable fluency and much enjoyment. The less mature children should have some power in reading simple stories.

**FALL TERM**

Stories in the McCloskey Primer.
Selections from First Language Reader—*Baker and Carpenter*.

**WINTER TERM**

Stories from First Language Reader—*Baker and Carpenter*.
Eskimo's Stories. Carroll's Around the World (see General Subject-Matter).
Stories from Summer's First Reader.
Hektographed Reports—Here experience is gained in reading script. (See Language.)

**SPRING TERM**

Stories from Summer's First Reader.
"Indians." Carroll's Around the World (see General Subject-Matter).
Hektographed reports. (See Language.)
Stories from various readers.

**VII. LANGUAGE**

No special period is given to language as it is so closely connected with all of the work. The aim is to have the children enlarge their vocabularies and to express their ideas in sentences.

Beginning with the winter term attention is given to the oral reproduction of some of the shorter stories, especially the fables. (See Stories and Poems.)

In the winter and spring terms reports of excursions and nature study observations and summaries of other topics are dictated by the children and written on the blackboard by the teacher. These reports are hektographed so that each child may have a copy. (See General Subject-Matter and Nature Study.) (For picture studies for this grade, see list by grades on page ??)

**VIII. SPELLING—PHONETICS**

**FALL TERM**

This work is quite separate from the reading period. The sounds of the consonants and some simple phonograms, as "at," "in," "ad," "ill," etc. The writing of the letters and phonograms.

**WINTER TERM**

Simple phonograms and grouping words into families. Writing of the phonograms and words. When possible, used as an aid in reading.
COURSE OF STUDY FOR THE TRAINING SCHOOL

SPRING TERM

Learning and writing phonograms. Distinguishing between long and short sounds—"at," "ate," "ot," "ote," etc. Now used as an aid in getting new words in the reading.

IX. MATHEMATICS

The work in mathematics is connected with the measurements and problems that arise in the handwork, the finding of the pages in the reading lessons, the scoring and counting in games. At the end of the year the child should know yard, foot, inch, quart, and pint; he should be able to count and read numbers up to 100. The advanced children should write numbers up to 100.

Quart, Pint, Peck are introduced in playing milkman, in buying apples and cranberries, and in cooking. (See General Subject-Matter.)

Yard, Foot, Inch are used in measuring cord for reins, in making Christmas gifts, clocks, looms, and books, and in laying out gardens. (See Handwork.)

The Fractions ½, ¼, ¾ are used in connection with the cup in cooking, the yard, foot, and inch in measuring, and the quart and the pint.

Number Games—Bean bags.
Ball.
Ring toss.
Muffin Man.

Seat Work in Connection with Mathematics:
Stringing given number of beads.
Laying given number of sticks.
Drawing given number of objects.

X. MUSIC

General outline for the year: Stress is placed on giving the child a musical vocabulary through song, both by concert and individual singing. The chief aim will be to encourage a love of song.

Songs Selected—For connection with general subject-matter.
For modifying and blending young voices.
By reason of strong rhythmic qualities.

Rhythm—Given free play and developed through games and dramatization. (See Games, XII.)
Primitive desire satisfied through use of percussion instruments, i.e., drum, clappers, triangle, and bells.
Feeling for accented beat in measure encouraged by hand games, such as "With My Left, Left, Left," "Pease Porridge Hot," etc., and by simple exercises with large balls. Use of singing games. (See Physical Training.)

Original Expression—Children encouraged to give musical expression to thought. Tendency to too great vagueness held in check by a slight element of comparison and discrimination.
Subjects suggested by work and activities of the grade,—by changes in nature, by personal experiences.

**Ear Training**—Reproduction of short phrases and parts of familiar songs with such syllables as "loo, too, lo" and "no," and sometimes with scale syllables.

Scale and tonic triad (1, 3, 5) learned by imitation.

Monotones assisted by calling games, cries of street vendors, etc. Obstinate cases worked with individually.

Use of tones and short phrases reproduced on zylophone.

**Voice Culture**—Incidental to song work.

**Reading**—No formal work with musical symbols. Occasional use of reading devices given in game form.

**Suggested Songs:**

**Fall Term**

For explanation of table reference see page 152

<table>
<thead>
<tr>
<th>Song</th>
<th>Composer</th>
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</thead>
<tbody>
<tr>
<td>The Slumber Boat</td>
<td>Gaynor</td>
</tr>
<tr>
<td>Hush-a-Bye</td>
<td>Elliott</td>
</tr>
<tr>
<td>Wee Willie Winkie</td>
<td>h. p. 15</td>
</tr>
<tr>
<td>The Grocery Boy</td>
<td>e. p. 23</td>
</tr>
<tr>
<td>The Little Gray Pony</td>
<td>Anon</td>
</tr>
<tr>
<td>Yankee Doodle (vocalized)</td>
<td>a. p. 1</td>
</tr>
<tr>
<td>The Bow-wow and the Pussy</td>
<td>b. 1. p. 16</td>
</tr>
<tr>
<td>Blacksmith Song</td>
<td>Anon</td>
</tr>
<tr>
<td>Come, Little Leaves</td>
<td></td>
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<tr>
<td>Little Squirrel</td>
<td></td>
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<tr>
<td>The Cat Tails</td>
<td>b. 11. p. 22.</td>
</tr>
<tr>
<td>The Brownies</td>
<td>b. 1. p. 102</td>
</tr>
<tr>
<td>Mr. Duck and Mr. Turkey</td>
<td>a. p. 32.</td>
</tr>
<tr>
<td>Over the River (Thanksgiving)</td>
<td>Anon</td>
</tr>
<tr>
<td>Santa Claus</td>
<td>Max Lowen</td>
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<tr>
<td>Dear Santa Claus</td>
<td>b. 1. p. 26</td>
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<tr>
<td>Away in a Manger</td>
<td>v. 1. p. 69.</td>
</tr>
<tr>
<td>Christmas Night</td>
<td>Martin Luther</td>
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<td>Christmas Tree Dance</td>
<td>d. p. 33</td>
</tr>
<tr>
<td>Nursery Rhymes</td>
<td></td>
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<tr>
<td>Little Boy Blue</td>
<td></td>
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<tr>
<td>Little Miss Muffitt</td>
<td></td>
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<tr>
<td>The Crooked Man</td>
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<tr>
<td>Bean Porridge Hot</td>
<td></td>
</tr>
<tr>
<td>House that Jack Built</td>
<td></td>
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</tbody>
</table>

**Winter Term**

<table>
<thead>
<tr>
<th>Song</th>
<th>Composer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacky Frost</td>
<td>w. Primer p. 81</td>
</tr>
<tr>
<td>Five Little Kittens (counting game)</td>
<td>j. p. 19</td>
</tr>
<tr>
<td>Salute to the Flag</td>
<td>b. 11. p. 57</td>
</tr>
</tbody>
</table>
COURSE OF STUDY FOR THE TRAINING SCHOOL

Rub-a-dub-dub b. 1. p. 32
The Clock b 1. p. 86
The Great Big Clock a. p. 54.
Soldier Boy, Soldier Boy Hofer Popular Games
The Snow Man e. p. 40
Nursery Rhymes
   The House that Jack Built.
   The Old Woman Who Lived in a Shoe.
   Dickory, Dickory, Dock.

SPRING TERM

Three Little Pigs y. i. p. 6
Pussy Willow b. 1. p. 99
The Violet b 1. p. 80
The Tulips b. 1. p. 82
Mr. Frog a. p. 28
Daisies b. 11. p. 23
The Little Bud y. 1. p. 120
All the Birds Have Come Again z. 1. no. 16
Lullaby d. p. 55
Spring and Summer e. p. 32
Nursery Rhymes
   Little Bo-Peep w. 1. p. 40
   Biddy Barefoot (Scale Song) z. 11. p. 2

XI. WRITING

All practice in writing is on the blackboard. The words are visualized and then written. In the fall and winter terms the child learns to write his name and a few simple words. In the spring term he writes simple sentences in connection with the excursions, nature study, and work in the garden.

XII. PHYSICAL TRAINING

MARCHING.

   Single file.
   By twos.
   By fours.
   Diagonally from corners, crossing in center.
   Hands clasped, maze marching.
   On toes, arms stretched.
   On heels, arms close at side (stilts).
   Low marching (knees bent).
   High marching (knees raised high in front).
   Running on toes.

RHYTHM.

   Touch step.
   Cross step.
Follow step.
Sliding step.
Step hop.

**Rhythm Plays.**

"Meeting and Greeting."
"Round and Round the Village."
"Chimes of Dunkirk."
"Shoemaker’s Dance."
"German Clap Dance."
"Farmer in the Dell."

**Floor Work.**

Arm thrusting and circling.
Stride position, wood chopping. Arms swing up over shoulders alternately.
Leg swinging.
Hand clapping.
  Forward, shoulder high.
  Overhead.
  Alternating.
Stride standing, clapping overhead and under alternate knees.
Hands on hips, trunk bending.
  Forward.
  Sideward.
Closing and opening hands.
Closing and opening feet.
Springing on balls of feet.
Jumping.
Action plays.
  Swinging, raise arms high above head, shake vigorously as lowered to floor.
  Picking apples, reach up with one hand, lower down, across body.

**Games.**

Drop the Handkerchief.
London Bridge.
Follow the Leader.
Cat and Mouse.

**Apparatus Work.**

Climbing ropes.
Swinging.
Hanging.
Bounding balls.
Grade II

I. HISTORY

The complexity of the home life in which the child dwells can be better understood by comparison with primitive processes of securing food, shelter, and clothing. The emphasis in the second grade is accordingly placed upon the development of these processes in the different stages of civilization. The fishing and hunting, the pastoral, and the agricultural stages furnish the basis of the work. In this study of primitive life, comparisons are made not only with modern life, but also with each of the other primitive stages.

Furthermore, through this phase of school work, we aim to develop in the child a closer group interest in his work with other children; and to furnish a basis for physical activity by bringing the child in contact with nature and natural elements.

FALL TERM

TREE AND CAVE DWELLERS:
Environment.
Shelter—trees, brush huts, and caves.
Food.
Materials.
Vegetable—berries, nuts, wild rice, etc.
Animal—meats.
Utensils and implements.
Stained baskets.
Dippers of gourds.
Hammers and knives.
Preparation of food.
Uses of fire.
Means of procuring.
Bows and arrows.
Clubs.
Beginnings of Home Life discussed.
Family relations.
Domestication of dogs, sheep, goats, and cattle.
References—Story of Ab—Stanley Waterloo.
Tree Dwellers—Dopp.
Cave Dwellers—Dopp.

MODERN METHODS of preparation and distribution of food are discussed, and in connection with this study trips are made to such places in Kalamazoo as a grocery store and freight depot.

WINTER TERM

The domestication of animals marks the transition from the hunting and fishing to the pastoral stage of primitive life. In the study of the latter,
special emphasis is given to this fact and the consequent changes in the mode of procuring food, shelter, and clothing.

**SHEPHERD LIFE:**

Shelter.
- Kinds—tents of skins; huts of wood; folds and corrals for sheep and goats.
- Location—near wells or creeks.

Food.
- Kinds—animal: milk, butter, cheese, meat.
  - vegetable: fruits.
- Utensils for food—simple pottery forms.

Clothing.
- Kinds—skins.
  - woolen cloth.
- Process of making woolen cloth, blankets, and rugs.
  - Shearing, washing, carding, spinning, and weaving of wool.
  - Primitive looms, heddles, and shuttles.

Domestication of animals: sheep, cattle, dogs, horses, and camels.

Weapons and implements.
- Bows and arrows.
- Slings.
- Crooks.

Musical instrument—Flute.

**Modern Methods** and products contrasted with those of the pastoral stage, in connection with which a visit is made to a creamery to see modern butter and cheese making, and to a store to examine rugs.

**SPRING TERM**

**Agricultural Stage.**—This stage marks the next advance in civilization with regard to the methods of procuring foods, shelter, and clothing. In this phase of primitive life, the emphasis is laid in the second grade, upon the cultivation of grains. The work covers the spring term, and is resumed in the fall with the third grade, when the class will harvest and store the grain and vegetables that they planted in the spring term of the second grade.

**Lake Dweller** used as a type. (Pueblo Indian sometimes taken.)

Cause of change from pastoral life discussed.

Homes.
- Location.
  - On lakes.
  - Near fertile shores.
  - Surrounded by mountains.
- Materials used.
- Sources.
- Construction.

Furnishings.

Tools and implements.
- Stone cells.
- Digging sticks.
Means of communication with the shore.
Rafts.
Dugouts.
Bridges.
Ladders.

Food.
Animals.
   Sheep and cattle.
   Fish.
   Game.
Vegetables.
   Grains, fruits.

Modern methods in agriculture are studied in comparison with the primitive methods of the Lake Dwellers. Visits are made to available farms to observe the work done in the preparation of the soil and in planting of grains.

II. HANDWORK

Art—Mediums: Water-colors, black and colored crayons, clay, paper-cutting.
Drawing and Painting—Work of the first grade continued and extended with subjects chosen from the interests and suggested by the needs of the work of the grade.
Design—Motives from seeds, leaves, etc. Patterns for units cut, outlined, and painted. Possibilities of design as affected by materials worked out in design for woven rug.
Clay—Free modeling of fruits, animals, etc.
   Simplest coiled pottery.
Paper Cutting—To illustrate stories. As in first grade, no cutting of a number of objects on a ground line. Give more attention to the mounting, placing cuttings to emphasize perspective relations.
Picture Study—See list on page 154.

Textiles—Basketry and weaving.
Fall work in connection with the study of Ab.
   Gather rushes from West St. Creek.
   Gather willows.
   Invent ways of weaving baskets. Make baskets of prepared materials, such as tilo strands.
   Gather poke berries, walnuts, etc., to make stains, ornament baskets.
Winter work in connection with shepherd life.
   Experiment in shearing, carding, dyeing, and weaving wool.
   Experiment with vegetable dye made from onion skin, beets, berries, etc.
   Dye yarn for rugs.
   Weave rugs with simple design.

Woodwork:
   Cards for carding wool.
   Dashers for churning.
Simple looms for weaving rugs. Invent heddle and shuttle.
Digging-sticks for garden, and different implements used.
Grocer's wagon or freight car.

**COOKING:**

*Primitive.*
- Heat water with hot stones.
- Roast apples, potatoes, corn in hot ashes and on sharp sticks over the fire.

*Modern*—To contrast with primitive.
- Boil water over a gas flame, contrast length of time required to heat.
- Bake potatoes in oven, contrast convenience and results.
- Prepare simple cereals, make apple sauce, and cook cranberries for Thanksgiving.
- Contrast serving with that of primitive life.
- Churning butter and making cottage cheese (in connection with study of shepherd life).

**GENERAL CONSTRUCTION WORK:**

Christmas gifts.
Sand Table:
- Cave man's home.
- A typical shepherd encampment.
- Lake Dweller's home, showing house, ladders, bridges, and fields near shore.
- Much opportunity given for the child to handle the sand and build up his own concepts in free play.
- Stringing seeds, nuts, etc., as toys for baby.
- Making dishes from gourds, primitive weapons, and other articles suggested by primitive life.
- Make dictionaries for spelling words, covers for booklets, etc.

**III-IV. NATURE STUDY**

**FALL TERM**

**TREES**—Leaf fall. Recognition of eight or ten varieties of trees. Study characteristics of oak, maple, elm, willow.

**BIRDS**—Note migration of geese, ducks, robins, blackbirds.

**INSECTS**—Caterpillars—two varieties. Preparation for winter.
- Cabbage butterfly—watch development of eggs.
- Cricket.

**ANIMALS**—Bear. Preparation for winter. Zoo animals—learn to recognize a few of these.

**FLOWERS**—Learn to recognize and name goldenrod, aster (cultivated and wild), salvia, nasturtiums.

**SEED DISSEMINATION**—By wind: milkweed, dandelion, catalpa, and basswood.
- By animals: sand-burs, burdock, Spanish needles.
WEATHER OBSERVATIONS:
Character of day.
Direction and strength of wind, involving the study of the cardinal points of the compass.
Temperature: i.e., warm, cold, cool.
Precipitation: snow, rain, or fog.

TIME—Day, week, month, season, year.

IDEAS OF LAND FORMS—Hills, valleys, lakes, mountains.

EXCURSIONS to gather materials for work in primitive life.
Rushes and willows for baskets, from Wattles’ Glen.
Stones for hammers.
Stains.
Food.

WINTER TERM

TREES—Deciduous.
Oak, maple, elm, willow. Contrast with fall appearance. Note characteristics.

Evergreens.
Pines (as a group), spruces, balsam, fir. Note excurrent trunk and gather young cones.

SEED DISSEMINATION—Keep cones gathered in early winter until they open and seeds drop out.

BIRDS—Winter residents: bluejay, woodpecker, sparrow, crow, nuthatch.

ANIMALS—Bear—hibernation.
Dog. Study varieties (collies, terriers, etc.), habits, usefulness.
Goats. (See outline for sheep.)
Cow. (See outline for sheep.)

CONTINUE WEATHER OBSERVATIONS. Forms of snowflakes.

TIME—Contrast length of winter day with days of other seasons.

SPRING TERM

TREES—Continue observations of oak, maple, elm, willow.

BIRDS—Robin, bluebird, oriole, woodpeckers (hairy and red-headed), meadow lark. Note effect of blackbird and sparrows on agriculture.

INSECTS—Cutworm, caterpillar.

FROGS’ EGGS—Watch development into tadpoles.

FLOWERS—Learn to name and recognize: hepaticas, anemone, spring beauty, violets, Dutchman’s breeches, squirrel corn, Jack-in-the-pulpit, trillium, marsh marigold, and buttercup.

SEED DISSEMINATION—By wind: maple and elm.

CONTINUE WEATHER OBSERVATIONS.

TIME—See outline for fall term.
SECOND GRADE

GARDENING—Group work. Planting of rye and barley and biennials, parsnips, carrot, beet, turnip, etc.
Individual work. Pupils to have their own choice of early vegetables and flowers.

SEED GERMINATION as a preparation for gardening. Pea and bean. Observation of root, stem, and cotyledons. Learn these botanical terms.

V. POEMS AND STORIES

FALL TERM

Poems:
Robin Redbreast—Allingham.
The Hay Loft—Stevenson.
Autumn Fires—Stevenson.
Farewell to the Farm—Stevenson.
September—H. H. Jackson.
November—Cary.
How the Leaves Come Down—Coolidge.
Lady Moon—Ford Houghton.
Thanksgiving Day—Lydia Child.
While Stars of Christmas Shine (from "Three Years with the Poets.")

Stories:
How the Bear Lost His Tail—Harris.
Just So Stories—Kipling.
Lion and the Two Jackals—Sara Cone Bryant.
Whale and the Elephant—Sara Cone Bryant.
How Fire Was Brought to the Indians.
Raggylug—Seton Thompson.
Gingerbread Man. (Fairy Tales—Lansing.)
The Golden Touch.
Beauty and the Beast.
Daniel in the Lion's Den.
Hans in Luck. (Children's Hour.)
Thanksgiving Stories.
The Discontented Pine. (Graded Literature, II.)
The Fir Tree—Andersen.
The First Christmas Tree (from the Plan Book for Autumn.)

WINTER TERM

Poems:
The Weaver (Language through Nature, Literature, and Art.)
Winter Song—Stevenson.
Winter Time—Stevenson.
Land of Story Books—Stevenson.
The Cow—Stevenson.
Milking Time—Rossetti.
What the Wind Brings—Stedman.
Wynken, Blynken, and Nod—Eugene Field.
The Drum—Eugene Field.
Snow Boy—Sherman.
Clouds—Sherman.

STORIES:
David and Goliath.
How Jack Got a New Shirt (Graded Classics, II).
Why the Evergreen Trees Never Lose Their Leaves—Holbrook.
Why the Sea Is Salt.
Bell of Atri—Longfellow (adapted).
Fido.
Stories of Shepherd Dogs.
Goody Two Shoes—Grimm.
Jack the Giant Killer. (Children’s Book—Scudder.)
Puss in Boots.
Cinderella—Grimm.
Lad Who Went to the North Wind—Dasent. (Children’s Hour.)
Boots and His Brothers—Dasent. (Children’s Hour.)
Buttercups.

SPRING TERM

Poems:
Daisies—Sherman.
Little Gustava—Celia Thaxter.
Who Stole the Bird’s Nest?—Lydia Child.
Answer to a Child’s Question—Coleridge.
Ariel’s Song—Shakespeare.
Wishing (Posy Ring).
The Bluebird
The Brown Thrush \{ (Three Years with the Poets).
March (1st stanza)—Wordsworth.

Stories:
Story of the First Humming Bird.
Baucis and Philemon—Hawthorne.
Fisherman and His Wife—Grimm.
Dick Whittington and His Cat (Children’s Book—Scudder).
Arachne.
Red-Headed Woodpecker—Holbrook.
The Tiger, the Jackal, and the Brahmin (Stories to Tell to Children—S. C. Bryant).
The Camel and the Jackal.
Rhoeus—Lowell (adapted).
Aladdin. (Arabian Nights.)

Sources:
Fairy Tales—Grimm.
Fairy Tales—Andersen.
Rhymes and Stories—Lansing.
Fairy Tales—Lansing.
SECOND GRADE

Nature Myths—Holbrook.
Stories to Tell Children—Sara Cone Bryant.
The Children's Book—Scudder.
Just So Stories—Kipling.
Three Years with the Poets—Bertha Hazard.
Graded Poetry, I and II—Alexander and Blake.
The Posy Ring—Wiggin and Smith.
Little Folks' Lyrics—Sherman.
Love Songs of Childhood—Eugene Field.

VI. READING

Reading may be looked upon from two different points of view. It is sometimes considered a purely mechanical process, aiming at developing the power of getting words independently and gleaning thought from the printed page regardless of the material used. But the reading-matter listed below is given to meet the needs of the child in a broader sense. Besides developing mechanical power, it aims to give pleasure and to cultivate a taste for good literature through presentation of well-adapted fairy stories, fables, and rhymes.

Leaflets on Story of Ab—E. C. Barnum.
Old-Time Stories Retold—Smythe.
Language Reader, II—Baker and Carpenter.
Second Fairy Reader—Baldwin.
Tree Dwellers (Selections)—Dopp.
Bow-wow and Mew-mew—Craik.
Classis Fables—Turpin.
Leaflets on Shepherd Life, prepared by Francis Parker School.
Lodrix, the Little Lake Dweller—Wiley and Edick.
Selections from other readers.
  Jones' Reader, I and II.
  Graded Literature, II.
  In Field and Pasture—Dutton.
  Taylor, II.
  Graded Poetry, I and II—Alexander and Blake.
  Heart of Oak, I.
  Aldine First Reader.

Occasionally the children's dictated reports on some particularly interesting phase of their work are printed in leaflet form.

VII. LANGUAGE

Oral—Aim: To acquire the power of thinking logically, giving expression to thoughts clearly, enunciating distinctively.
Reproduction of fables and short stories.
Conversation. Talks on subjects suggested by primitive life, nature study, etc. Free conversation.
Dramatization, based on fables and other stories.
Original stories and rhymes. (These sometimes dictated to teacher and written, and often class products.)

**Written**—The power in written expression is far behind that in the oral at this stage. The aim is to help the child in his grasp of written form so that by the end of the second grade he may write two or three sentences expressing clearly his own thoughts. At the beginning of the year, the work consists of the reproduction of one sentence after the copy has been visualized, this being a continuation of the first grade work. After a sufficiently large written vocabulary has been acquired, original work is required of each child.

The blackboard is used at the beginning, and during the first half of the year writing upon large unruled paper with black crayon or large soft pencils is begun. This is continued throughout the year, the size of the writing being reduced so that two or three sentences may be written on the page.

**Formal Points Taught in This Grade**—(Entirely through their use in connection with other needs in writing):

- Capital and period, to mark beginning and end of sentence.
- **Capitals**:
  - Names of persons.
  - Child’s and the pronoun I.
  - Other persons.
- Names of places.
  - Child’s own address.
- Names of days of week and months of year.
- First word of each line of poetry.
- Abbreviations used in child’s own address, including initials, St., Ave., etc.

**VIII. Spelling**

**Phonics**—Ear and Eye Speller is used as a text-book. The work for the year covers the material outlined for the first grade. Through the power gained in phonics the children are enabled to become independent in recognizing words in the reading lessons. Direct application of phonics should be made to the reading where it can be done without a sacrifice to the thought.

**Word Study**—Many of the words that will be used in the written language lessons are drilled upon orally and in written form. This work reinforces the work in writing.

**IX. Mathematics**

In this grade a short period daily is given to the study of number as such, but the stress is still laid upon the number problems which arise in the other lines of school work. The outline is only suggestive of the concrete work. The statement of formal work indicates the power which the children should gain by the end of the year.
Sources for Concrete Problems:
Cooking: Halves, fourths, thirds (used in measuring).
Construction: Inch and foot (used in making looms, dashers, booklets for pictures, portfolios, etc.).
Nature Study: Inch, foot, yard (used in making garden beds).
Textiles: Pint, quart, and gallon (used in dyeing yarn for rugs).
Time: Hour, half hour, quarter hour (learned through reference to school periods).

Formal Work, developed through the child's experience:
Counting: By 2's, 3's, 4's, 5's, 10's.
Addition facts: The most commonly used combinations through twelve.
Subtraction: Inverse addition of the same combinations.
Symbols: =
Money values: Cent, nickel, dime, quarter, half-dollar, dollar.

X. MUSIC. General Outline for the Year

Songs—The song is still the predominating element in the child's work. 
Songs may be analyzed in a limited way:
As to meter (number of pulses to a measure).
As to movement of certain phrases (up or down).
As to recognition of scale passages and tonic triad.

Rhythm—Frequent use of rhythmic exercises based on the play thought, and correlated with subject-matter, i.e., running, skipping, marching, high-stepping horses, churning, sewing, reaping, etc. Use of percussion instruments (more complicated rhythms) and large balls continued, also singing and traditional games. Recognition of two, three, and four pulse measure and representation on board with long and short vertical lines, and with curved lines.

Original Expression—Short phrases based on general subject-matter, and on personal experiences of the child; introduction of question and answer phrases composed by the teachers and child, or by two children.

Ear Training—Reproduction of short phrases introducing scale passages, tonic, dominant, and subdominant triads, and translation by the child into syllable names.
Short rote songs taught by syllable names.
Special attention given to musically deficient children.
Liberal use of scale songs.
Reproduction of tones, and short phrases on the piano or zylophone.

Voice Culture—Incidental to song work; exercises such as 8 531—858—12321, etc., vocalized with "no, lo, yaw," etc., and ranging from d to f or g; also familiar songs vocalized with "loo" or "no."

Reading—Occasional representation of simple songs, or parts of songs already learned on blackboard with large notes. These will be sung with words, and with syllables. Formal reading will be introduced sparingly.
Suggested Songs:

For explanation of table reference see page 152

**FALL TERM**

Lullaby v. i. p. 62.
Little Squirrel a. p. 39.
Grasshopper Green f. p. 103.
The Milkweed Seeds c. 1. p. 18.
Good Bye to Summer e. p. 39.
The North Wind b. 1. p. 64.
The Leaves' Party e. 11. p. 30.
The Flower Bed e. p. 38.
Autumn Fires e. p. 10.
One Misty, Moisty Morning Thanksgiving Song d. p. 27.
Over the River Anon.
Dear Santa Claus Plan Book.
Merry Christmas Bells Plan Book.
Shine Out O Blessed Star e. p. 93.
The First Christmas

**WINTER TERM**

Merry Little Snowflakes d. p. 28.
The Grocery Boy e. p. 23.
The Little Lamb
O, We Are the Shearers b. 1. p. 19.
Baa, Baa, Black Sheep h. p. 7.
See the Pretty Valentines l. p. 7.
Song of the Soldier w. 1. p. 24.
In the Snowing and the Blowing c. 1. p. 9.
Pretty Pussies Down by the Brook y. 1. p. 13.

**SPRING TERM**

Awake, Said the Sunshine c. 1. p. 16.
The Wind Song d. p. 68.
Spring Song l. p. 12.
The Sweet Pea Ladies b. 11. p. 17.
Swing Song b. 11. p. 103.
The Moon Boat b. 1. p. 61.
Mistress Do, and Her Neighbors b. 1. p. 94.
The Bird's Nest b. 1. p. 10.
The Robin and the Chickens (Scale Song) y. 1. p. 12.
The Ginger Cat y. 1. p. 41.
The Little Doves y. 11. p. 67.
Learning to Sing y. 11. p. 64.
XI. WRITING

Written work on the blackboard with a soft crayon, and upon large unruled paper with pencils. The form of letters is emphasized during word study period. (See Language.)

XII. PHYSICAL TRAINING

MARCHING:
Single file—alternating right and left.
By twos.
By fours.
Diagonally from corners.
On toes.
On heels.
With bent knees.
With knees raised high in front.
Running on toes.

SKIPPING:
Forward.
Side.
Cross.

RHYTHM:
Touching steps—forward—sideward.
Touching twice forward—step forward—heels together. Alternate right and left.
Heel and toe—step—heels together.
Rhythm Games and Folk Dances.
"Shoemaker's Dance."
"Kinderpolka."
"Tailor's Dance."
"Carrousel."

FLOOR WORK:
Slight stress is placed upon response to command.

Commands:
Attention!
Hips—firm!
Neck—firm!
Arms upward—bend!
Arms upward—stretch!
Right or left foot forward—place!
Feet—open!
Feet—close!

Exercises involving use of large muscles:
Arms and legs.
Circumduction of arms.
Flinging of arms.
Stretching of arms.
Jumping to stride position with hand clapping.
Position—arms at sides.

Trunk movements:
Bending forward and sideward, combined with clapping hands.

**APPARATUS:**
- Dumb-bells.
- Ball tossing and bouncing and alternating.
- Heavy apparatus.
  - Hanging on ladders and swings.
  - Climbing and swinging on ropes.
  - Giant swing.

**GAMES:**
- Cat and Mouse.
- Ring toss.
- Two circles.
- Games with bean bags.
  - Two circles, basket placed in center. Throw bag in basket. Side getting largest number in wins.
- Dodge ball.
  - One or two in center of circle must dodge ball thrown from circle.
  - If struck, must take place in center.
- Slap Jack.
- Skip Tag.
Grade III

I. HISTORY

In the spring of the second grade the children have begun the study of agricultural peoples and have planted in the garden a primitive farm—cereals, corn, barley, oats, and garden vegetables. In connection with this they have had stories of the Lake Dwellers. The fall interest centers in the harvest; hence, the third grade work begins here. Egypt is taken as a type. The trade between Egypt and Phœnicia leads to a study of trade conditions and early explorers. Ancient Greek and Norse stories are used as a basis here, selection being made by critic for each group. Contrast is constantly made with modern conditions.

FALL TERM

AGRICULTURE—Continuation of study. (Through this to Egypt.)

Examination of products harvested from garden: a consideration of what is to be done with harvest.

Experiments with primitive methods of threshing, winnowing, and grinding flour.

Excursions to

A farm, to study fall conditions.

Kent's grain elevator.

Williams' flour mill—to follow wheat from the farm.

Prepare soil and plant wheat, to be harvested by present second grade. Modern wheat planting, use of drill.

Egyptians.

Why they chose Nile valley to live in.

Nile River: source, direction, mouth, valley, deposits.

Climate and need of water.

How need was met by nature.

Inundation of Nile.

Great rejoicing when this occurred.

How this was met by the people.

Irrigation system.

Work of Egyptian farmer.

Preparation of soil: tools, plowstick, hoes.

Sowing broadcast.

Treading in.

Harvesting.

Threshing.

Making flour.

Transporting produce.

By desert.

By water.
Building.
  Huts.
  Storehouses.
  Palaces and pyramids.

Harvest festivals.

Egypt's trade with adjacent countries, especially Phoenicia.

Winter Term

Phoenicia—Egypt's neighbor.
Geographical situation.
Products—agricultural, forest, mine, seashore.
 Desire for visit and trade with neighbors.
Conditions which led to travel and trade by water and resulting occupation. (Studied through Hiram of Tyre.)

Needs developed through trade.
System of weights and measures. (See Correlated Handwork.)

Phoenician boat.
Earliest and latest forms.
Comparison: boats of neighbors, Egyptians and Greeks.
More primitive boats of other people.
Boat of 1492; Columbus.
Modern steamboat.

Preparation for trips.
Food.
Clothing.
Weapons.

Dangers of trips.
Shoals.
Rocks.
Storms.
Seas unknown.
Lack of accurate methods of telling directions.
Compare with modern conditions.
  Lighthouses.
  Compasses.
  Bell buoys, etc.

Trade routes. (See Language.)

Spring Term

Other Types of Traders:

Vikings.
  Studied through Jennie Hall's "Viking Tales."

Greeks.
  Studied through "The Odyssey" (Story of Ulysses, by Agnes S. Cook).
II. HANDWORK

ART—Mediums: Water-colors, black and colored crayons, clay, paper-cutting.

Drawing and Painting—The children in the third grade begin to manifest more interest in technique and learning how to improve their free work. The interests and needs of the grade furnish the motives for the work.

Representation—Flowers, fruits, sprays, animals, toys, pose, landscape in three values.

Illustration—Games, occupations and stories suggested by work done in literature, history, geography, and nature study. Review of principles taught in first and second grades. Special emphasis on action and proportion of figures and animals.

Design—Greater feeling for balance, rhythm, and order. Motives from nature. Designs for cross stitch applied in textile work. Book covers, Christmas gifts, etc.

Clay—Free modeling of nature forms, animals, etc., continued. Simple pottery forms, in connection with Egyptian work, decorated with simple incised bands.

Paper-Cutting—To illustrate stories such as pictures of the Nile Valley, etc. Greater emphasis is placed upon the composition in the mounting. Colored paper frequently used. The children have worked out frieze for the room, showing pyramids, camels, palm trees.

Picture Study—See list by grades, page 155.

TEXTILES:

Basketry and Weaving—Experimenting in materials,—rushes, willows, splints, corn husks, etc.; in making mats and baskets.

Sewing—Cross stitch embroidery in band design or simple unit applied as an all-over pattern, applied to book bags, needle-books, curtains. Simple problems involving the basting stitch, such as candy bags, costumes, etc.

WOODWORK:

Primitive tools.—plowstick, flail, scoop for winnowing.

Small boat.

Simple balances for weighing developed as needed during the study of Phœnicia.

Rabbit house and bird houses have been problems of special interest in past years.

The problems for this grade will naturally be variable from year to year and dependent upon the interest of the children and ingenuity of the teacher.

Cooking—The work in cooking will extend that of the first and second grades in simple processes. The aim in these grades is to give control over materials, responsibility in watching the experiment, and general pleasure and information rather than scientific knowledge. The problems will therefore be variable from year to year and planned to meet the particular needs of the class.
Domestic Economy—During the year some domestic problems are given to the children, which are worked out largely through the school housekeeping. Committees are appointed each week to take charge of dusting the furniture, washing the glass in the sash doors, cleaning the bowls in the toilets, washing and ironing the dust cloths, caps, and aprons, etc. Definite instruction is given in the care of the school bedroom. The Thanksgiving party affords opportunity for instruction in the setting and decorating of a table and serving, as do many of the cooking lessons.

General Construction Work:

Christmas gifts.

Sand Table.

Egyptian scene showing methods of irrigation.

Reservoirs, canals, shadoof.

Work in metals.

Discussion of and experimentation with various materials.

Contrast wood and metal.

Test metals for melting point.

Various means of moulding.

Visit foundry for modern process and commercial use.

Mould weights.

Blueprinting:

Leaf forms for nature booklets.

Pictures taken on excursions.

Portfolios for work, dictionaries, book covers, etc.

The program for the grade will in general give an hour weekly to handwork in addition to problems developed in drawing and seat work periods, the latter often in charge of students with directed handwork. In cooking, through the fall and winter terms classes will meet regularly, one-half the room having cooking while the other half has textiles or woodwork, alternately.

III. GEOGRAPHY

Weather Conditions—Temperature recorded during September, November, March, to gain appreciation of seasonal change.

Position of Sun at different periods of day.

Shadow Stick—Note changing length as seasons progress.

Moon Phases.

Recognition of a few of the constellations.

Soils and Soil Formation in connection with gardening and farm study.

Simple Study of Drainage in connection with gardening.

Some Conception of World as whole through constant use of map in study of peoples and individuals.

Europe through Vikings, Greeks, Stories of Holland.

Africa through Egyptians and Kipling stories.

Asia through Phœnicia, Palestine, Arabia (through trade).
North America through Columbus, local stories and experience.

MAP APPRECIATION.

MAPPING EXCURSIONS.

IV. NATURE STUDY

FALL TERM

TREES:
Review for recognition all trees named in second grade. Learn to distinguish between the two oak groups, black and white, through leaves and bark; relationship shown through the acorn.
Add recognition of native nut trees,—horse-chestnut, sumac, hickory, walnut and butternut, hazelnut, chestnut, beech.
Plant nuts. Make blueprints of leaves to preserve.

MIGRATION OF BIRDS—Recognize fall migrants, flocks and singly,—swallows, shore birds.

PREPARATION FOR WINTER of rabbit and squirrel. Pet in schoolroom.

INSECTS—Butterflies and moths. Observe monarch and viceroy butterfly, and cecropia moth. Keep in schoolroom and study life history.

DISSEMINATION OF SEEDS AND FRUITS:
Emphasize agency,—wind, animals, water, man, birds, propulsion. Collections to illustrate.
Nuts, thistle, wild chicory, sweet pea, violet, pansy.
Observation of biennial roots.

STUDY OF FARM ANIMALS—Horse, etc.

WEATHER OBSERVATIONS—(See Geography outline).

WINTER TERM

TREES:
Recognition of five or six trees studied in fall, in their winter state. Learn to know new evergreens: spruce, juniper, hemlock, arbor vitae.

BIRDS:
Recognition of winter residents continued (see second grade). Problem: How to attract them (grains on window sill).

ANIMALS:
Special study of the rabbit as schoolroom pets. Study habits of feeding, etc.
Muskrats. Visit colony beyond Oakwood.

PLANTING:
Bulbs planted by each child. Growth observed and recorded. Children finish blueprints of matured plants from negatives made by older pupils.
In connection with history work, plant flax, to watch growth in room previous to outdoor planting.

SPRING TERM

TREES—Study same trees observed in fall, in their spring state.
BIRDS:
Recognize other conspicuous varieties, such as goldfinch, rose-breasted grosbeak, scarlet tanager, brown thrasher, cow bird, bobolink. Note difference in coloring between male and female.
Study nest-building of the robin and oriole.

SEED GERMINATION—Corn, wax bean, horse-chestnut (plant in winter). Observe growth of nuts planted in fall.

BIENNIALS—Observe renewed growth of those left in ground. Set those left in pit through winter.

BUD DEVELOPMENT—Observe in schoolroom and out-of-doors the opening of bud and leaf development of willow and horse-chestnut.

WILD FLOWERS:
Review those of Grade II.
Kinds of violets distinguished.
Recognize dog-tooth violets (two species), bloodroot, ladyslipper, starflower, etc.

GARDEN WORK:
Group beds,—flax, corn (in connection with history study).
Individual beds,—choice from flowers and vegetables.

INSECT STUDY:
Watch completion of life histories of viceroy, monarch, mourning cloak butterflies, and cecropia moth.
In connection with garden work make a study of the earthworm.

STUDY OF SOILS—(See Geography).

V. LITERATURE

Books Read by the Children:
Third Readers—Jones, Child Life, etc.
Poetry:
   Poems Every Child Should Know—Burt.
   Graded Poetry, No. 3.
Robinson Crusoe—Baldwin.
Story of Ulysses—Cook.
Viking Tales—Jennie Hall.
Lodrix, the Little Lake Dweller—Wiley and Edick.
The Tree Dwellers—Dopp.
Classic Myths—Judd.
Bunny Cotton Tail.

Stories Told to the Children:
Bible:
   Joseph.
   Moses.
   Samuel.
   David.
   Ruth.
The Christmas Story.
Animal:
- Reynard, the Fox—Jacobs.
- Toomai of the Elephants—Kipling.
- Uncle Remus.

Miscellaneous:
- Fairy Tales—Grimm. (Many of these are retold many times.)
- Gudbrand on the Hillside—Dasent. (Children's Hour, I.)
- Boots and His Brother—Dasent. (Children's Hour, I.)
- Buttercup—Dasent. (Children's Hour, I.)
- East of the Sun and West of the Moon—Asbjornsen. (Blue Book—Lang).
- The First Christmas Tree. (Child's Story Garden.)
- The Bell of Atri (Child's Story Garden.)
- The Birds of Killingworth. (Child's Story Garden.)
- Selections from “Norse Stories”—Hamilton Mabie.

Poems to Be Memorized:

**FALL TERM**

“How the Leaves Come Down”—Susan Coolidge. (Nature in Verse.)
- Autumn Fires—Stevenson.
- A Child’s Thanksgiving—Laura E. Richards.
- The Sandman.
- The Children’s Hour—Longfellow.
- Ghost Fairies—Frank Dempster Sherman. (Children’s Hour, IX.)

**WINTER TERM**

- The Snowstorm. (Nature in Verse.)
- Pine Needle—Paul Hamilton Hayne.
- Sweet and Low—Tennyson.
- Cradle Hymn—Luther.
- Little Orphan Annie—Riley.
- He Prayeth Best—Coleridge.
- Daisies—Frank Dempster Sherman. (Children’s Hour.)

**SPRING TERM**

- The Market Day—Alice Farwell Brown. (Children’s Hour.)
- Great, Wide, Beautiful World—W. B. Rands.
- “Child Life”—Whittier.
- The Bluebird—Miller. (Child Life.)
- Voice of the Grass—Boyle.
- Norse Lullaby—Field.

**VII. LANGUAGE**

**Oral**—The emphasis in third is still upon the oral in language. The work in history, nature study, and literature affords much material for oral work, work for vocabulary, ease of manner, logical sequence of fact.
COURSE OF STUDY FOR THE TRAINING SCHOOL

Written work is limited to a few sentences, written, during the first half year, with pencil upon large unruled or wide-spaced paper. Writing with ink is begun the second term. (See “Writing.”) Such topics as the following have been used:

Agriculture.
  Oral and written account of trips.
  Dramatization of Egyptian festival.
  Flailing song.

Trade.
  Oral and written description of excursions.
  Written description of boats.
  Boating song.
  Dramatization of Viking scene.

Written—Work will come under the following heads:
  Reports of excursions and the activities of the school to be kept as a record of work.
  Original stories; this work most often a group project dictated to the teacher. Here the best critical work of the child is done in the revision of the sentences.
  Original dialogue for use in their dramatizations to supplement the purely spontaneous.
  Original poems and songs, for dramatizations and other events.
  Simple letter forms, including an envelope address.
  Picture study. (See picture lists.)

FORMAL LANGUAGE POINTS:
  Margins.
  Paragraph form, one paragraph composition.
  Indentation.
  Capitals at—
    Beginning of sentence (review).
    First word of each line of poetry.
    Titles and proper names.
  Use of comma (noted in group work, not drilled upon) after—
    Nouns in series.
    Nouns of address.
  Use of quotation marks begun. Use in their dialogues to distinguish where parts begin and end.
  Abbreviations: Mr., Mrs., abbreviations for the months.
  Apostrophe; used in singular possessive, without drill.

VIII. SPELLING

Oral and written spelling given about equal time.
Phonic work: Eye and Ear Speller used. Cover work for second year.
Oral and written spelling of words needed for the written language.
IX. MATHEMATICS

The mathematics for Grade III are still closely correlated with the construction work of the grade, though a separate period is also assigned in which further drill can be given in fundamental facts.

SOURCES—The sources of the problems for the grade are given below as merely suggestive of what has been worked out and what may be done.

Nature Study—Linear and square measure (used in gardening), fractions (in proportion of beds), form of garden beds.

Heights of trees estimated by known standards.

Cooking—Liquid measures; fractions; weights,—pounds, ounces, fractional parts.

Construction—Measurements and form study in making portfolios, booklets, book bags, calendars, wooden balances, etc.

Weights in making metal weights.

Games—Bean bags, quoits, ring games, etc,—score kept. Playing store,—measuring and making change.

Time—Hour, half hour, quarter hour, sixth and third hour,—length of school periods.

The formal work of this grade will aim chiefly to fix the addition facts and through these the simpler multiplication tables, to extend the ability to write numbers, and to increase the speed of handling combinations already known. It will include the following:

The addition facts. Subtraction as inverse addition.

Multiplication and division through the fives.

Writing of numbers to a thousand.

Division by one figure,—dividend not to exceed three places.

Multiplication by one figure,—multiplicand not to exceed three places.

Simple fractions,—½, ¼, ⅛ series, including ¾, ⅜, ⅝, ⅝; ⅔, ⅖, ⅗.

Other fractional series, according to the needs arising in the work and the ability of the class.

Tables of measure,—linear, liquid, dry weight.

X. MUSIC (General Outline for the Year)

SONGS—The song is still a dominant feature of the music period, although more stress is placed on reading than formerly.

RHYTHM—Free rhythmic play still given at least once each week with piano. (See Grades I and II.) Singing games and folk dances. (See Physical Training.) Recognition of familiar songs from the rhythmic structure when clapped or tapped. Recognition of two-, three-, four-, and six-pulse measure and the divided beat when heard. Reproduction on percussion instruments of difficult rhythms after one hearing.

ORIGINAL EXPRESSION—If not forced, some attempt may be made in class composition. If such things as original chants or songs to correlate with the study of the early Egyptians are tried, a sufficient musical background must be supplied by the teacher. Primitive chants such as those given
in Rowbotham's "History of Music," or "The Indians' Book," by Curtis, should be sung a number of times for the children before any attempt at original effort is made. The constant repetition of the same music should be avoided. Fruitful results have come several times on this subject in this grade, not only in original settings, but also original words.

**Ear Training:**
Phrases vocalized by teacher, translated into syllables by pupils.
Liberal use of chromatics in patterns for imitation.
Short phrases of familiar songs reproduced on piano or zylophone.
Two-part chording introduced by humming.
Rounds.

**Voice Culture—Exercises mainly of a descending character (see Grade II).**

**Reading—Short songs, phrases, and exercises sung from large characters on board. Individual singing of some from sight. Care taken to sustain the same interest and pleasure that the child evinces in his song singing.**

**Writing—Simple phrases written on board by pupils from musical dictation. Daily work (two minutes) and use of fewest number of symbolic advised.**

**Songs:**

For explanation of table reference see page 152

**Fall Term**

| Autumn Song | e. p. 36. |
| Autumn | b. 11. p. 10. |
| Cat-tails | b. 11. p. 13. |
| Song of the Kitchen Clock | b. 1. p. 89. |
| Thanksgiving Song | b. 1. p. 67 |
| Why Mr. Gobbler Changed His Tune | b 11. p. 70. |
| Jingle, Jingle, Sleighing Song | b 1. p. 70. |

**Winter Term**

| A New Year Greeting | l. p. 2. |
| The Snow Man | b 11. p. 15. |
| Miss Snowflake's Party | Gantvoort |
| Footprints | a. p. 22. |
| Flag Song | w. 1. p. 130. |
| Pussy Willow | e. p. 31. |

**Spring Term**

| Easter Song | b. 1. p. 44. |
| Pussy Willow | y. p. 88. |
| Pussy Willow | b. p. 98. |
| Spring Song | c. 1. p. 10. |
| Kite Time | j. p. 76. |
| Spring | y. 1. p. 19. |
| The Bobolink | b. 11. p. 17. |
The Mower's Song  y. p. 62.
Farmyard Song  u. p. 116.
Poppies  b. 11. p. 10.
Sweet Pea Ladies  b. 11. p. 30.
The Sweet Red Rose  g. p. 58.

XI. WRITING

During the first half of the year the transition from the unruled paper to the wide-spaced paper is made. The writing is reduced somewhat in size. Every effort is made to keep it free and to avoid cramped position.

XII. PHYSICAL TRAINING

Marching—Same as Grade II.
Add quarter wheeling in fours with arms locked.

Rhythm:
Change step.
Combine heel—toe—change steps.
Touch twice and change step.
Glide four times to right and four times to left.
Touch and step, with arms raised sideward and overhead.
Folk dances and rhythm games.
   “Nigarespolska.”
   “English Harvesters Dance.”
   “Bean Porridge Hot.”
   “Dancing Topsy.”
   “Brownie Dance.”
   “Couple Dances.”

Floor Work—Same as Grade II, with more attention to form and with increasing coordination.

Commands:
See Grade II.
Feet sideways, place!
Head to left, turn!

General activity.
Arm extensions combined with heel raising.
Arm extensions combined with knee bending.
Knee raising, extending, bending, position.
Alternate right and left.
Trunk bending.
Bending sideward, arms extended upward.
Skipping forward in place.
Running in circle in place.
APPARATUS WORK:
Dumb-bells combined with general activity exercises.
Ball bouncing and tossing and alternating.
Heavy apparatus.
Climbing, swinging, hanging, jumping.
Sliding on ropes, poles, ladders, etc.

GAMES:
“Cat and Mouse.”
“Dodge Ball.”
“Slap Jack.”
“Miller Is Without.”
Games with bean bags, relay races.
Jumping over rope weighted at one end. Leader swings it around circle;
if child fails to jump it, he drops out of game.
“I Say Stoop.”
Grade IV

I. HISTORY

The interests of the child in this grade begin to assume wider range. He has some ideas regarding the growth of communities and the way they are sustained. These have been gained through his study of primitive life. Now he wishes to know more about his own country and city. At the close of the third grade, the children have heard of other great explorers than the Greek and Norse, especially of Columbus. Children at this age are eager for tales of adventure; hence, stories of the early discoverers, explorers, and pioneers of the New World are of absorbing interest. The history work follows the great events of early exploration and settlement of the United States, and the local history of Kalamazoo. The history outline that follows is intended to guide the teacher in the organization of her material.

FALL TERM

Period of Settlement or Colonization:

New England.
- Pilgrims in England.
- Pilgrims in Holland.
- Voyage of the "Mayflower" (date).
- Landing at Plymouth.
- Hardships and difficulties of first year.
- The First Thanksgiving.
- Stories of Miles Standish, Bradford, and Winthrop.
- Occupations of the Puritan household.

New Amsterdam.
- Story of Henry Hudson and his discoveries.
- Purchase and settlement of Manhattan.
- Peter Stuyvesant.
- Change of name from New Amsterdam to New York.
- A Dutch Christmas.

WINTER TERM

Virginia.
- Cause of settlement. (Story of Sir Walter Raleigh.)
- Character and plans of colonists. (Contrast with Pilgrims.)
- Village of Jamestown. (Mapped on sand table.)
- Difficulties. (Contrast at all stages with Pilgrims.)
- Captain John Smith and his influence on colony.
- Cultivation of tobacco and the necessity for large plantations. (Contrast with small New England farm.)
- Homelife and industries on the Virginia plantation.
PERIOD OF DISCOVERY AND EXPLORATION:
Columbus.
  What was known of the earth at time of Columbus.
  Columbus' idea of shape of earth.
  His voyage and discovery.
Ponce de Leon's adventures.
Balboa's discovery of the Pacific.
Circumnavigation of the earth by Magellan.
Cortez in Mexico.
De Soto
Sir Francis Drake.
La Salle.
Marquette and Joliet.
Lewis and Clark.

SPRING TERM

MICHIGAN:
Early explorers and missionaries.
Under French control.
  Settlements and trading-posts.
  Cadillac at Detroit.
Growth under English control.
  Pontiac and his conspiracies.
After the Revolution.
  George Rogers Clark in Michigan.
  Commodore Perry on Lake Erie.
  As part of Northwest Territory.
  Admitted as a state (date).

LOCAL HISTORY:
History of Kalamazoo before coming of white man.
  Mound Builders (Remains in Bronson Park).
  Indians.
Trading-posts.
  Center of Indian trails.
  Remains of old trading-post on the Kalamazoo River in Riverside Cemetery.
  Story of Leonard Slater. (Remains in Riverside.)
Settlement of Kalamazoo (Story of Titus Bronson).
  Growth of village and its institutions.
Settlement of the Dutch in Kalamazoo (Story of Governor den Bleyker).
  Appearance and size of city at present time.
  Its government.
  Public institutions and buildings.
  Industries of the city (Special study of typical industries).
    Celery growing.
    Stove manufacturing.
    Paper manufacturing.
    Other manufacturing.
Map of city.
Locate public institutions, park, etc.
Show course of Kalamazoo River.
Locate Prospect Hill and other points of interest.

Problems for class discussion:
Reasons for location of Kalamazoo.
Advantages of situation.
Reasons for growth.
Dependence of Kalamazoo upon other parts of the country.
What Kalamazoo contributes.

II. HANDWORK

Art—Mediums: Pencil, brush and ink, water-colors, crayons, clay, paper-cutting.

Drawing and Painting—The work is practical, and problems grow out of the work of the grade. The formal result is suggested below:
Representation—Flowers, fruits, vegetables, sprays, trees, landscape, cylindrical and simple rectangular objects, toys, pose and animals.
Illustration—Of stories and poems.
Design—Units taken from leaves, seed vessels, and other nature forms. Idea developed of adaptation of unit to enclosing space: triangle, circle, square, etc. Application of all designs to pen-wipers, book covers, candle shades, etc. Stencil pillow cover or mat for Christmas gift.
Clay—in this grade simple pottery work is begun, and useful articles made, such as a tile, a nut bowl, candlesticks, etc.
Paper-Cutting—Applied designs.
Landscape compositions for poster effects.
Picture Study—See list by grades, page 155.

Textiles—In connection with pioneer life, children continue the study of weaving, begun in the second grade. The flax planted and harvested in the third grade is carried through the process of retting, breaking, and hetchelling. Attempts are made at spinning. Comparisons are made with work with wool in second grade. A study of cotton follows. In the spring term a study of silk. (See Nature Study.) This gives the children the four great textile fibers, their origin and something of the differences in process of manufacture.

Vegetable dyes, such as poke berry and walnut, are used to color materials for school use. Class experiments to see differences in the way the different fibers color, also with various simple mordants, such as alum, salt, oxalic acid.

The class make small looms and weave holders, belts, bags, or some useful article.

The Colonial foot loom is used by the group, and rag rugs woven.

Woodwork:
Building of small log houses and furniture, illustrative of pioneer life.
Making bird houses in the spring.
Flax hetchels, looms, etc.

Cooking:
Colonial Cooking—A study of Indian corn, ways of cooking, making hulled corn, baked beans, cranberry sauce, etc.
Contrast modern johnnycake with simplest corn cake.
Other problems selected for the class.

General Construction Work:
Soap and candle making.
Making useful articles for the schoolroom, such as pen-wipers, blotters, drawing portfolios, note-book covers. This work is usually under the supervision of the drawing class.
Christmas gifts.
Sand Table—Mapping Plymouth Colony, New Amsterdam, nature study regions, Kalamazoo.

The division of time for this work will be on the average an hour to an hour and a half weekly. Cooking will continue throughout the year, each class cooking once in two weeks. Problems in woodwork and textiles will alternate with the cooking.

References for Colonial Handwork:
Dopp, "Place of Industries in Elementary Education."
Earle, "Home Life in Colonial Days."
Earle, "Child Life in Colonial Days."

III. GEOGRAPHY

The topic for this grade is life in primitive regions, i.e., those regions in which man's life is simple and closely bound to climatic conditions. The object of this study of the primitive areas of the world is not primarily knowledge as such, or even of the life of the primitive people. These areas furnish the child an opportunity to satisfy his early cravings to image the larger world beyond his own home land. The areas furnish simple human life conditions, naturally interesting and intelligible to the child of this age, around which he can associate a large number of facts about physical things which will later in his life take on more and more significance. The goal of the study, then, is to build up broad general ideas of the earth. In view of this fact, completeness of study with respect to any element in the situation (inorganic things, plants, animals, or man) should not be too strenuously sought. Let the child's interests guide in the selection of details, somewhat as one would manage a class in visiting a great park with curious plant and animal forms.

Further, the areas chosen are not selected with a view to completeness, even in getting a general idea of the earth. This completeness comes only with much greater maturity of mind than can be expected in the fourth grade. Therefore, while the areas chosen from the great physiographic units of the earth, only those are selected for study which are in themselves concretely interesting and illustrative of physiographic control. The more logical rela-
tions implied in the selection of materials need not be brought to the attention of the children. In working up these areas, student teachers should select a definite part of the area or some organic part of the subject, and about this part they should become thoroughly informed before they attempt to teach it, and have settled its relation to the general topic. All mapping or modeling should have been tried out before the teacher comes to his class.

**FALL TERM**

**Arctic Regions:**

*Provinces*—Greenland, Hudson Bay, Mackenzie River Delta, North and West Alaska, Lena River, Yenesei River Basin, Obi Basin, Lapland, White Sea, etc.

**Outline for Study of a Province:**

*General Relations*—Nature of space; boundaries; position with respect to civilized nations; forest, tundras, ice fields, etc. Contrast with child’s own home land in position, advantages, and disadvantages.

*Climatic Conditions*—Effect of climate as expressed in life relations. Associate with climate, the length of day and night, altitude of the sun, appearance of the sun at different times of the year, effect of long nights of winter, the melting of snow and ice, the thawing of the ground, length of summer as shown by season of plant growth, etc.

*Vegetation*—Study plant life in the summer and winter. Suppose an Eskimo makes a journey in summer and again in winter for hunting; describe things he would see, such as shrubs, trees, mosses, lichens, berries, flowers, food for animals, etc. Always compare plant life of this region with that of home land.

*Animal Life*—Let idea be held constantly before the mind that what an animal does, its habitat, its covering, the food it eats, the place it rears its young, etc., are all responsive to one or more of the facts of its environment, here chiefly climate.

Detailed study of the animals of the land, the sea, and the air; reindeer, deer, caribou, foxes, rabbits, musk-ox, wolves, seal, walrus, whale, polar bear, salmon, ducks, gulls, ptarmigans, mosquitoes, etc.

*Human Life*—Geography of fourth grade centers about this topic. The study of how man has adapted himself in this region of perpetual cold, gives incentive for an imaginary journey to the far north; the story of journey includes the following topics:

Route of travel.

With aid of map pupils will select route of travel from Kalamazoo to northern province chosen.

Description of interesting places on the way north.

Modes of travel, etc.

Landing-place.

First view of country.
Welcome of the Eskimos. A detailed description of the physical appearance of Eskimos.

The building of the house.
The making of igloo or snow hut.
Compare with summer home or tepee.

Interior of the house,—furniture, beds, stoves, etc.

Food of the Eskimo.
Kind of food.
How prepared.
Give description of a typical meal.

Dress of Eskimo.
Making of clothes,—jacket, stockings (skins of birds), boots, etc.
How made,—thread, needles, etc.

How they travel.
Building of sledge.
How dogs are harnessed.
What sledge carries.
Making of canoe or kayak.
Description of large boat or umiak.

Weapons or implements,—harpoon, snow knife, bolas, spears, bows and arrows, etc.

Description of a Seal Hunt.
Preparation for hunt.
Weapons used.
How seal are caught.
How various parts are used.

Hunting of the Bear.

Occupations of summer.
Duck spearing.
Salmon fishing.
Bird hunting.
Collecting eggs.
Gathering moss.

Play of Eskimo boys.

Social customs.
Religious ideas.

Report of Peary's expedition.

Winter Term

Tropical Areas:
Areas Hot and Moist—Guianas, selvas of the Amazon, eastern part of Central America, the Congo Basin, Sumatra, Java, the Philippines.
Areas Hot and Dry—Llanos of the Orinoco, Pampas of Brazil, Mexico, The Pueblos in New Mexico, The Sudan, East Central Africa, etc.
Temperate Areas—Within the hot zone: The high plains of the Andes, Abyssinia, Lake region of Africa, etc.

Follow the outline used for polar regions. Children will probably find the study of the plant and animal life of these areas an easier way of approach than the more physical study of climate and relief. Questions of getting food, making roads, building houses, kind of clothing needed, etc.

Steppe and Mountain Type:
Study of the dry temperate regions of the earth and the desert.
The studies may be supplemented by a study of the mountain tribes of Kashmir, the people of the Caucasus, the Basques of the Pyrenees and the Berbers of the Atlas Mountains.

Spring Term
Home Geography—Give all the time possible to field work. Geography will slip into these excursions unbidden, and concepts of form, distance, association of living things with their physical causes, and a multitude of other geographic relations will inevitably come to the child with every field study. The various items of home geography should be shown:
Map of city drawn to a scale.
Model area in sand or clay.
Some valley convenient to school should be studied as a type,—its animal life, plant life, the stream that made the valley, etc.

IV. Nature Study
Trees:
Review trees of previous grades, especially the nut trees studied in third grade. Make a study of the nuts of commerce.
Distinguish between burr oak and white oak.
Identification of fruit trees,—apple, peach, cherry, pear, etc.
Add list of native trees recognized,—the basswood, honey locust, tulip, sycamore, mulberry, sassafras. (This list to cover fall and spring work.)
Note the deciduous habit of trees. (Fall phenomena.)
Make leaf books, collections of nuts, etc.

Birds—Migration:
Recognition of fall migrants,—causes, time, routes, weather.

Hibernation of frogs, toads, turtles, etc. Keep toad in window box.

Insects—Swallow-tailed butterfly. Emphasize life history.

Dissemination of Seeds and Fruits from the standpoint of adaptation,—pappus, wings, hooks, color, edibility, etc.

Biennials—The study of biennials, begun in third grade, finished in full, making complete life cycle.
Much work will be done in the fall and throughout the year with industrial work related to the work in colonial history, in dyeing with barks and berries, making soap and candles, hulled corn, etc. This work is outlined under handwork.

Excursions will be frequent, to collect material for vegetable dyes, branches for the log house, etc., also to collect material and make observations called for above.

**Winter Term**

**Trees:**
- Recognition of trees in their winter state, adding as many as possible to those already known.
- Review recognition of evergreens studied in previous grades.
- A study of the different pines.

**Birds—**Winter residents.
- Excursion to ascertain homes, food, and influence of weather on habits.

**Pets—**White mice; watch habits.

**Aquaria—**Care of same. River beetle, frog, gray fish.

**Modes of Propagation in Plants—**Seeds for garden started early in room; slips grown in fall; bulbs planted for winter blooming. Studies of food storage in plants.

Geographic nature study (Outlined under Geography).

**Spring Term**

**Trees:**
- Study of buds and branches. Note development of buds, terminal and lateral buds, leaf and flower buds. Note difference in arrangement and scars from previous growth. Development of maple and apple contrasted.
- Recognition of fruit trees by flowers and leaves.
- Special study of development of the apple from the blossom.
- Distinguish kinds of maples.

**Birds:**
- Spring migrations.
- Bird calendar.
- The swallows; purple martin; cliff swallows; barn swallows; chimney swift.
- Identification of cedar wax wing, shrike, cat-bird, wren, and kingfisher.
- Special study of nest building of wrens, bluebirds, barn swallows.

**Silkworm—**The life history, habits of feeding, care required, etc.

**Garden Work—**Children have individual beds and experiment with vegetable products, such as peanuts, cotton, etc.

**The Toad—**Emphasis upon his work in the garden.

**Insects:**
- Swallow-tailed butterfly—life history completed. (See Birds.)
- Mosquito.
- Beetles.
- Ants and aphids.
Wild Flowers—Recognition of all common flowers in vicinity. Discover those which grow from bulbs. Compare with bulbs grown in house in winter.

V. LITERATURE

Read and Told by the Teacher:
Alice in Wonderland.
Norse Stories—Mabie.
Sigurd, the Volsung—Morris.
Just So Stories—Kipling.
Life and Letters of Lewis Carroll—Collingwood.

Read by Children:
Water Babies—Kingsley.
Hiawatha (Selections)—Longfellow.
Arabian Nights. (Heart of Oak III.)
Just So Stories—Kipling.

Poetry (Some selections memorized):
Selections from—
Graded Poetry, IV.
Poems Every Child Should Know—Burt.
Golden Numbers—Wiggins and Smith.

VI. READING

Selections from Literature listed in V.
Viking Tales. Part II—Jennie Hall.
Four Old Greeks—Jennie Hall.
Fifty Famous Stories—Baldwin.
Pilgrim and Puritan—Nina Moore Tiffany. (Parts).
Selections from fourth readers: Jones, Stepping Stones, Heath.

VII. LANGUAGE

The aim of the language work of this grade, both oral and written, is to develop greater power in the following:
Orderly arrangement of ideas.
Construction of sentences.
Choice of words.

The topics for composition work will be found in the whole of the child’s environment,—in the games and common activities of his daily life, interesting incidents in his experience, in the observation of the plant and animal life about him, and in the studies of the school curriculum—literature, history, etc. The motive for expression is still recognized as the chief power for growth, and every effort is made to have the written work the result of a need for writing. When the topic for oral or written composition is chosen from interesting subject-matter found in the other work of the grade, the teacher in charge of the particular subject will direct the exercise. When these compositions are written, they will be used for class criticism in the language period.
FORM OF EXPRESSION:

Oral and Written Story Telling:
From pictures.
From incidents and outlines suggested class.
Reproduction of stories from history, literature, etc.

Dramatization:
Frequent oral work in dramatization of simple fables and short stories in reading.
At least one more elaborate dramatization in which dialogue will be written and criticized by the class. Subject to be taken from the work in literature or history.

Short Poems—Suggested by festival days, or seasons, or to accompany dramatic dialogue.

Letter Writing:
The informal friendly letter of third grade reviewed and extended.
Letters always sent to an absent classmate or friend.
A simple business letter, written to ask for samples of farm products, or some necessary article for the schoolroom.
Envelope address.

TECHNICAL POINTS:
Work on technical points to grow out of a need for this knowledge in their written and oral composition.
Review of all previous work as necessity arises in oral and written language.
Quotations to be studied as they appear in their reading, and when need occurs for them in written story telling and dialogue work in dramatizations.
Apostrophe.
In possessives.
In a few contractions: 'tis, don't, etc.
Plural of nouns—regular rule.
Abbreviations—List increased to include those needed in arithmetic, letter-writing, and geography: No., sq. ft., yd., pk., bu., Mr., Mrs., St., Rev., N. E., etc.
Correct use of irregular verb forms of go, see, do, sit, lie, and lay. Also a few adjectives and adverbs.
Extend paragraph power. Discussion of good headings for their paragraphs and the relative order in which these should come. Compositions not to exceed three paragraphs.
In connection with sentence study, teach exclamation point and question mark.
Attention to margin, indentation, etc.

Books for Teacher's Use
"Language Lessons from Literature"—Cooley-Webster.
“Foundation Lessons in English”—Woodley.
“Steps in English”—Morrow-McLean-Blaisdell.
“Language Lessons”—Gordy-Mead.
“First Steps in English”—Albert LeRoy Bartlett.
Studies in English—Robbins & Row.

VIII. SPELLING

Continue use of “Ear and Eye Speller,” third year, and of “New World Speller.”
Use dictionary. Teach diacritical marking of long and short vowels.
Drill on all new words in current matter.

IX. MATHEMATICS

Mathematics of this grade will consist both of abstract work and applied problems which will relate, when possible, to the child’s daily environment, problems that are suggested by pupil’s other work, both within and without the school. Such problems will deal with number games, cost of material used in construction work, measurements that are necessary in garden work, drawing, cooking, manual training, etc., and with our supply of food, clothing, and shelter in connection with the study of home geography.

Formal work of this grade includes:
- Multiplication and division tables through 12’s.
- Addition and subtraction of integers (Austrian method).
- Multiplication of abstract numbers by two digits.
- Writing numbers through millions.
- United States money, using four fundamental processes.
- Measures—linear, liquid, dry, weight.
- Simple bills made out and receipted.
- Long division. Divisor to have not more than two digits, with unit’s place always one, as 21, 31, 41, etc.

Work in arithmetic has not been divided on basis of terms for the reason that problems will grow out of term’s work in other subjects, and much of the formal work of grade will be reviewed daily in class work. Chief emphasis of work of fall term will be placed on a thorough review of preceding year’s work, and additional new facts in multiplication combinations up to 7 times 12. The time of teaching processes of long division and multiplication of abstract numbers by two digits will be determined by strength of class. Both topics are usually taken up in spring term.

X. MUSIC. General Outline for the Year

SONGS—An allowance of time, although less than that previously scheduled, is made for songs considered purely for their intrinsic worth. Wherever possible, songs will be made the basis for reading and ear training.

RHYTHM—More complicated rhythms with percussion instruments and balls. Easy arrangements for toy orchestra to be read from score. Traditional games and folk dances. (See Physical Training.) Recognition of divided beat and the dotted quarter note.
EAR TRAINING—Translation of phrases and parts of familiar songs into syllables. Cultivation of absolute pitch to a limited degree, *i.e.*, “c” and the tone triad in key of C. Reproduction of phrases on piano or zylophone. Two-part chording, *i.e.*, \[\frac{3}{1} \frac{4}{2} \frac{5}{3} \frac{6}{4} \frac{7}{5} \frac{8}{6}\], keys of C, D, and E. Rounds.

ORIGINAL EXPRESSION—Composite productions inspired by general subject-matter. Should the Vikings be used, an atmosphere should be created by the frequent hearing of Norse melodies (also dramatic music of Grieg’s, “Olav Mountain King” and the “Death of Ase,” from the Peer Gynt Suite.)

VOICE CULTURE—Humming exercises to insure proper placing. Care taken to develop round, clear, resonant tones. 8, 5, 3, 1—1 8 7 6 5 4 3 2 1 to be sung with “no,” also exercises calling for a change of vowel on a sustained tone, *i.e.*, “Ah-oo-oh.”

READING—The book is now introduced as a formal part of the work, being used for a short time daily and never absorbing the entire lesson period. An effort should be made to preserve spontaneity in the work and to avoid drudgery.

WRITING—Daily writing on paper for short period, two minutes.

SONGS:

**FALL TERM**

- “Autumn Song”
- “We Must Go”
- “A Slumber Song”
- “The Children and the Sheep”
- “Spinning Song”
- “The Child’s Thanksgiving”
- “The First Thanksgiving”
- “Portuguese Hymn”
- “The First Christmas Song”
- “Long, Long Ago”
- “Christmas Carol”

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<td>Taubert.</td>
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<td>w. (primer) p. 105.</td>
<td>Reinecke</td>
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<td>l. p. 96.</td>
<td>Old English.</td>
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<td>l. p. 32.</td>
<td>Louise Wilcox.</td>
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**WINTER TERM**

- “A New Year Greeting”
- “Winter Lullaby”
- “Snowflakes”
- “Easter Bells”
- “The Bird Band”

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<td>Cowen</td>
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**SPRING TERM**

- “Spring Song”
- “Voices of the Wood”
- “School Time”
- “To a Dandelion”
- “Poppies”
- “The Violet”
- “The Kite”

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MARCHING:

By twos.
By fours.
Command column right and left. In this grade more stress is laid on definite commands and tactic work.
Clap hands forward as left foot strikes floor.
Clapping hands overhead.
Alternating.
On toes,—arms stretched overhead.
On heels.
Low marching, hands on hips.
Lifting knees high in front.
Lifting knees high in running on toes.

RHYTHM:

Changing step.
Schottische steps combined with step hops.
Gliding steps turning at end of 8 counts.
Folk Dances.
"Tantoli."
"Kull Dansen."
"The Rill."

FLOOR WORK—At this stage begins the development of skill, cooperation and increased coordination, with greater interest in and respect for rules of the games. Formal gymnastics increase in importance. Competitive games increase in interest.

Commands:
Feet, sideways, place!
Arms, upward, stretch!
Arms, forward and sideways stretching.
Combine with foot placings.
Neck firm, combine with knee bending, stretching, extending, position.
Head sideways twist!
Head backward bend!

General activity:
Bending forward, arms overhead.
Bending forward, hands back of neck.
Bending forward, arms overhead.
Jumping to stride stand.
Hand clapping overhead, return to position.
Hand clapping in back.
Heel raising, arm flinging.
Extend leg forward from hips, hands on hips, hands back of neck.
Trunk twisting.
APPARATUS WORK:
Progression in dumb-bell series.
Progression in wand exercise series.
In this grade children can begin to memorize drills.
General progression in apparatus work. More attention paid to form.

GAMES:
Last couple out.
Dumb-bell and Indian club relay races.
Three deep.
Dog and rabbit.
Dodge ball, four in center.
I. HISTORY

The history work for this year is the study of the Greeks and Romans. This work follows the study of primitive life, during the first four years, with a study of the two nations which developed from primitive conditions in home life and government to a high state of civilization, many of the ideals of which serve as a background for the civic work of to-day. The study is, as in the fourth grade, largely biographical, aiming through the story of one great man and his work to give a picture of the life of the people, as represented by them.

Selections from Bryant's Iliad and Palmer's Odyssey are read to the class, so that a background may be gained for the study of the early Greek life. When this background is secured, the teacher (using the outline given below only as a guide) presents to the pupils the problems which confronted the Greeks and Romans, and these problems are discussed so that the pupils are led to see the different things which occupied the attention of these peoples and to contrast them with their own.

Much time is spent during the year in leading the pupils to use a textbook for reference. During the first part of the year simple outlines are hектographed and given to the class to keep in their note-books, the outlines being given following a development lesson, so that they may be used for review, and preceding an assigned lesson so that they may direct study. Late in the year the pupils begin to make their own outlines. Maps should be used throughout the year, especially outline maps on which routes may be traced and plans located.

The topics given below are flexible, arranged to guide the teacher's preparation and to be adapted at her discretion. Harding's "Greek Gods and Heroes" and "City of the Seven Hills" are in the hands of the pupils.

PUPILS' SUPPLEMENTARY READING

"Story of the Greeks"—Guerber.
"Great Names and Nations"—Niver.
"Plutarch for Boys and Girls"—White.
"Story of the Romans"—Guerber.
"City of the Seven Hills"—Harding.

TEACHER'S REFERENCE BOOKS

"History of Greece"—Botsford.
"Ancient History"—West.
"History of Greece"—Holms.
"Ancient History"—Myers.
"Greek Stories"—Church.
GREEK HISTORY (Two Terms):

**Mythical History:**
- Origin and early history as told by Homer.
- Mythical Heroes.
- The Trojan War.
- The Greek ideas of the world, at time of Homer.

**Later History:**
- Life of early Greeks.
- Food and clothing.
- Houses and furniture.
- Modes of travel and communication.
- Occupations.
- Amusements.
- Religion.
- Contrasting ideas of Athens and Sparta in Education.
- Government.
- Homes and home life.
- Study Lycurgus and Solon.
- Bonds between Greek states.
- Greek colonization.
- Persian wars, cause and effect.
  - The three great leaders in battle.
  - Miltiades at Marathon.
  - Themistocles at Salamis.
- The great orator—Aristides and his ostracism.
- Rebuilding of Athens.
- Themistocles ostracized.
- Cimon and his work.
- Myron and Æschylus.

**WINTER TERM**

The Age of Pericles.
- Pericles and his ideals of a city.
- Phidias, the great sculptor.
- The Parthenon and other architecture of this period.
- Greek ideals of patriotism.
- Philip of Macedon—his plan of conquest.
  - Demosthenes, the Orator, and his warning.
- Alexander the Great.
  - His conquests and his empire.
  - The spread of Greek civilization throughout his empire.
  - Death of Alexander—conquest of Greece by Rome.
- Influences of Greek civilization on later life.
- The Greek ideal of citizenship and of a beautiful city applied to work going on in Kalamazoo. Some study of how Kalamazoo can be made more beautiful.
ROMAN HISTORY:

Early and traditional history.
The founding of Rome.
Time, place, founders.
The Roman ideas in regard to
Religion, their gods and goddesses, auguries, etc.
Classes of citizens—patricians and plebs.
The Seven Roman Kings.
Numa, the peaceful, established Roman religion.
Tarquin, the proud.
His expulsion.
Abolition of kings.
The Roman Republic.
Struggle for existence.
Wars from without.
Great names: Brutus, Horatius, Cincinnatus.
Struggles between Patricians and Plebeians.
Tell Fable of the Stomach.
Sack of Rome by the Gauls.
The rebuilding of Rome.
Improvement in the city, aqueducts, roads, etc.
Rome a real democracy, Plebeians in office.
Roman conquest of all Italy.
War with Pyrrhus and his elephants.
Period of foreign conquest.
Punic Wars.
Carthage, location and power, compared with Rome.
Story of Æneas and Dido and the founding of Carthage.
Progress of struggle with Carthage through study of great
men and events.
Building the Roman fleet. The Roman war vessel.
Regulus.
Hannibal.
Archimedes and his inventions.
Cato (compare with Demosthenes).
Destruction of Carthage.
Rome conquers the world.
Conquest of Macedon and Greece.
Roman celebration of their victories.
Effect upon Rome of Conquest of Greece.
City filled with Greek learning.
Increase and interest in learning as opposed to war.
Civil strife.
Increase of a luxurious idle class.
Resulting strife.
The Gracchi.
Cicero and the orator.
Pompey.
The Roman Empire.
The reign of Augustus, "The Roman Peace."
Birth of Christ during his reign.
Roman life in the time of Augustus.
Homes.
Dress and food.
Games and amusements.
Writers: Vergil.
How writing was done: the stylus.
Buildings.
Education.
The Forum.

II. HANDWORK

The manual work for the fifth grade begins to assume a more technical character. One hour weekly during two terms is devoted to knife work for the boys and sewing for the girls. During the third term both boys and girls have cooking, while basketry and pottery are given throughout the year to both. These forms of handwork are chosen because of their social significance, and because the control of the technique is within the power of children of the grade and they have the satisfaction of having made an object really good and of social value. The Art work also gives more attention to mastery of technique, and through its applied design, etc., aims at products really valuable from the standpoint of children of this grade. The division of work by terms is as follows:

**FALL TERM**—Basketry,—one hour per week (for both boys and girls).
Sewing (girls), knife work (boys),—one hour per week.

**WINTER TERM**—Fall work continued.

**SPRING TERM**—Cooking,—1¼ hours per week (boys and girls).
Pottery,—one hour per week (boys and girls).

**THROUGHOUT THE YEAR**—Art,—four half hours per week.

**ART**—Mediums: Same as fourth grade.

**Drawing and Painting**:

*Representation*—Flowers, fruits, vegetables, sprays, animals and objects, pose, trees, landscape. Greater emphasis on technique and composition.
Cylindrical and rectangular perspective begun by the study and drawing of toys,—such as wagons, carts, drums,— and of simple still life forms. Outdoor sketching of simple houses and barns.

*Illustration*—Of poems describing landscapes.

*Design*—Motives taken from plant forms, adapted and applied to book covers, pottery, basketry, Christmas gifts, and other arti-
cles needed for school and home use. Decorative drawing of landscapes and of simple groups of objects in three or four tones.

Clay—Pottery study is a feature of the work of the grade, and is given a special hour weekly during the spring term. Children build many useful articles by hand. A study of Greek pottery is made in connection with the work in history. A study is made of the potter’s wheel, the kiln, and the process of “firing.” Simple bas-relief of scenes illustrating an historical event of their own choosing, after study of the Parthenon Frieze.

Picture Study—See list by grades, page 156.

Textiles:
Basketry (For boys and girls, in fall and winter terms):
  Woven mats of reed.
  Woven and coiled baskets of raffia and reed.
  Simple splint baskets.

Domestic Art (Girls, two terms): Use and care of needles, thimbles, scissors, and tape measures. Elementary stitches applied on articles for themselves.

Woodwork (Boys, two terms): Two terms of work for boys—fall and winter. Use of elementary drawing instruments, making of mechanical drawings. Use of two measurements—length and width. Objects that can be cut out of thin wood; making an object in wood; using the knife and a few simple carpenter tools; finishing of the object; utilizing stains, paints, and varnishes. Aim to acquire skill and accuracy in drawings and in the objects made. Information about the various tools and the material used.

Cooking—One term of cooking is given in the fifth grade, at present in the spring term, to both boys and girls. The course in cooking for this grade has not been fully enough determined to establish definitely. Problems involved by a simple breakfast or a camp meal are the attractive points for the boys in this grade, and around such center the work is planned.

General Construction Work (In connection with Art and other subject-matter):
  Plasticine model of a Greek house.
  Portfolios and book covers,—“case-binding.”
  Christmas gifts.

III. GEOGRAPHY

The purpose of the work in the fifth grade is to help the pupil develop vivid concept of certain important areas, or geographic provinces of the earth. The number of areas worked out from the list here given will depend upon the material at hand and the interests of the class. These areas are home lands of other children, and as such are as interesting to them as our own to us. The work should bring us to appreciate what their home lands are and help us to enter more fully into the life of the larger world group. In
such a home land the geographic elements are not commercial or industrial alone; but the scenic side, the resorts, the social advantages of all kinds, schools, churches, libraries, civic organizations, should also find a place, so as to develop in the child an appreciation of those social life relations which are every day becoming more important. The concept that the pupil should build up is a composite one. It consists of (1) Relief concept, (2) Plant concept, (3) Animal concept, (4) Human life concept, (5) Climate concept. The problem for each province, then, is the complete interrelation of these various complex concepts.

The following steps are suggested for the method of teaching a province:

Preparation. Knowing the child’s life and experience, seize upon some element of experience to bring the child into touch with the province. Roughly outline on the blackboard the area of the province, as one would make a frame for a picture. This bounds the area and the problem. What does the area include of interest and life relations? This is the problem. Let its area appear on a more general map in its true position.

In working out the problem give the pupils a chance to bring in material from various sources. As this material comes in, it will be unorganized. The direction of the teacher during a part of the class hour will be needed for bringing material into orderly relation.

Do not begin the teaching of an area by using pictures, slides, or stereographs. Let the pupil strive in other ways to get their concepts and wait until they feel the need of further help. Do not make the geography mere picture showing. The pupil must be stimulated to form some sort of an image of an area from the map, from conversation, and from the putting together of the elements of the concept in his own individual way. Then only will he appreciate supplementary material.

The texts, Dodge’s “Elementary Geography,” and Carpenter’s “Geographical Readers,” will bring the conventional and more generally organized material to the child, and should furnish the generalized expression of these facts. The use of these books should follow the class development of a topic and serve as a summary of facts.

**Fall Term (Areas in the United States)**

**Mississippi Valley:** Northern portion,—prairies (Kalamazoo as starting point).

**Chicago.**
- Location, population, climate, original site, and early history.
- Stores, parks, educational institutions.
- Industries (visit to the stock yards).

**Minneapolis.**
- Location.
- Flour mills and grain elevators.

**Wheat region.**
- Location, extent, general appearance.
- Visit to wheat farm in Red River Valley.
Trip from Minneapolis to St. Louis down the Mississippi River.
History of this region.
River scenery, river traffic.
Note states passed.

St. Louis.
Location, population, climate.
Reasons for commercial center.
Compare with Chicago.

A journey on the Great Lakes, stopping at
Toledo, Cleveland, Buffalo, Niagara Falls, Detroit, Soo Canal.
Visit an iron mine in the Lake Superior region.
Visit to Calumet and Hecla copper mine.
Visit Duluth.

A trip through lumber regions.
Wisconsin, Michigan, and Minnesota.

**MISSISSIPPI VALLEY**: Southern portion,—Gulf coastal plain (Mobile as center).

Mississippi jetties.
New Orleans.
Location.
Early history.
Shipping facilities.
A visit to a sugar plantation.
A visit to a cotton plantation.
A trip up the Mississippi River to St. Louis.
Note rivers, scenery, and levees.
A trip through grazing section.
Guthrie, Oklahoma.
San Antonio, Texas.

**PLATEAU STATES** (Denver as a center):

Pike's Peak.
A visit to a gold mine.
A visit to a silver mine,—Leadville, Colorado.
The Grand Canyon.
Crossing the Rockies to Salt Lake.
Scenery.
Salt Lake City.
Great Salt Lake.
Great American Desert.
The Yellowstone National Park.
General view of topography of region.
Visit geysers, hot springs, Yellowstone River Canyon.
Butte, Montana.
Visit Anaconda copper mine, just outside of Butte.
Miles City, Idaho.
Sheep raising.

**WINTER TERM** (Other areas in the United States and neighboring countries)
States of the Pacific Coast (Sacramento as center):

History of this region.
Big trees.
Big farms.
San Francisco.
  Golden Gate Harbor.
  Chinese life.
Los Angeles.
  Fruit lands.
  Study control of climate.
    By irrigation.
Trip north to Seattle.
  Scenery.
    Yosemite Valley.
    Mt. Shasta.
    Willamette Valley.
    Mt. Hood.
Trip up the Columbia River.
  Salmon fishing.
Seattle.
  View from city.

Alaska and Canada:

Side trip to Alaska.
  Glaciers.
  People.
  Seal fisheries.
Trip up Yukon into Canada.
  From Klondike River to Dawson City. Procure sledges and dogs.
  Travel to the Mackenzie River, then on to Hudson Bay.
    Gold fields.
    Forests.
    Wild Game.
    Canadian fisheries.
Railroad trip from western to eastern Canada.
  Winnipeg.
  Ottawa.
  Toronto.
  Montreal.
  Quebec.
Railroad trip to Halifax, Nova Scotia. (Take boat to Boston.)

States of Atlantic Coast (Boston as center):

Boston.
  City.
    Historical points of interest.
New York.
  Center of commerce.
Harbor scenes.
Parks.
Overcrowding of population.

Philadelphia.
Historic buildings.
Visit to one historical point.

Baltimore.
Oyster beds.

Washington.
How we are governed.

Norfolk.
Fleet and naval station.

Charleston.
Old city.

Savannah.
Visit to a turpentine farm.

Jacksonville.
Trip up St. John's River.
Orange groves.

TRIP TO MEXICO (Capital city as center):
Mexico.
City.
People and homes.
Vegetation.

TRIP TO CENTRAL AMERICA:
People.
Climate.
Forests.
Isthmus of Panama.

S P R I N G T E R M (Areas in Europe)

TRIP ACROSS ATLANTIC TO EUROPE.

B R I T I S H I S L E S :
Cork.
City and people.

Dublin.
Surrounding farms.

Belfast.
Linen factory.

Glasgow.
City,—compare with Philadelphia.

Edinburgh.
People,—home life.
Universities.

Manchester.
Cotton mills.
Liverpool.
   Commercial center.
Birmingham.
   Manufacturing center.
London.
   Trip down Thames.
   Trip to Oxford.

FRANCE:
   Paris.
      Beautiful city.
Lyons.
   Silk weaving.
   Trip down Rhine River.
Marseilles.
   Harbor.
Bordeaux.
   Vineyards.

BELGIUM:
   Antwerp.
   Brussels.

NETHERLANDS:
   General appearance of country.
   Rotterdam and Amsterdam.

NORWAY AND SWEDEN:
   Bergen.
   Trondhjem.
   Christiania.
   Stockholm.
   Fishing trip on Norway's coast.

GERMANY:
   Hamburg to Berlin.
   Dresden.
   Up Rhine River to Switzerland.

SWITZERLAND:
   Alps.
   Bern and Lucerne.

AUSTRIA-HUNGARY:
   From Ulm to Vienna.
   Budapest.

FINLAND AND RUSSIA:
   General view of Russia via
   Odessa.
Kief.
Trip down Volga.
Moscow
Kazan
Saratov
St. Petersburg.
Helsingfors.

GREECE:
Topography of country.
People.

ITALY:
Naples to Geneva via Rome and Florence.
Milan to Venice.

SPAIN:
Madrid.
Study Spanish people.
Barcelona.
Business center.

TRIP TO CHINA AND JAPAN.

CHINA:
Peking.
Appearance of city.
People and homes.
Curious customs.
Farms.
Location.
Machines used.

JAPAN:
General appearance.
Tokyo.
Appearance of city.
Home life.
Japanese farms.
Compare with Chinese.
Products raised.
Machines used, etc.

IV. NATURE STUDY

FALL TERM

SEEDS AND FRUITS:
Collection of seeds and fruits from garden.
Seeds and fruits of trees. Modes of dissemination of seeds of trees.
Collection and single classification of seeds and fruits.
Study a few imported foods made from seeds: pepper, spices, vanilla, chocolate, and coffee.

**A Study of Annuals:**
Their death and continuation and multiplication by means of seeds.

**Death of Insects:**
Their continuation and multiplication by means of eggs, hibernation and pupa. A field and laboratory study of the grasshopper.

**Introduced Shade Trees:**
Catalpa, mountain ash, silver poplar, ailanthus, English elm, box-elder, cut-leaved maple, weeping birch.

**Winter Term**

**Trees—Pinaceae.** Recognition of all available species. Discuss natural homes and value of these trees to Michigan.

**Forestry—**Discussed in connection with previous topic, uses of woods. Collection of hard and soft woods.

**Bird Calendar.**

**Fish—**Feeding habits, parts of body, observation of habits and external parts. Comparison with previous animals studied.

**Aquaria—**Snails.

**Guinea Pigs—**Habits, reproduction, similarity of young and parent.

**Spring Term**

**A Study of Germination—**Dissect seed.

**Bird Calendar Kept—**Recognition of whippoorwill and night-hawk, hawks, cuckoo, owls. Continue identification of birds already familiar.

**Insect Study:**

**Flowers:**
The buttercup family. The parts of a flower studied, also pollination. Relation of bees and other insects, also wind, to this process. The flowers of some trees discovered—such as maple, willow. Watch ripening and dissemination of seeds formed.

**Bees—**In their work with flowers. The life of the hive (use Morley's "Bee People"). Have hive belonging to grade if possible.

**Garden Work—**Individual beds. The economic side of the work emphasized. Competitive exhibits and other means of encouraging strong individual work.
FIFTH GRADE

HYGIENE—Studied throughout the year, but emphasized during the winter term when field work is less possible. Use Gulick Hygiene Series, Book II, “Emergencies.”

V. LITERATURE

Selections from Bryant’s “Iliad” and Palmer’s translation of “The Odyssey” are read to the children throughout the entire year.

FALL TERM

King of the Golden River—Ruskin.
Greek Heroes—Kingsley.
Corn Song—Whittier.
The Day Is Done—Longfellow.
Those Evening Bells—Moore.
To-day—Carlyle.
The Windy Night—Reed.
A Farewell—Kingsley.

WINTER TERM

Wonder Book—Hawthorne.
Paul Revere’s Ride—Longfellow.
Blow, Blow. Thou Wintry Wind—Shakespeare.
Skating—Wordsworth.
Lochinvar—Scott.
Battle of Blenheim—Southey.
Inchcape Rock—Southey.

SPRING TERM

Japanese Folk Stories and Fairy Tales—Nixon.
Tangle Wood Tales (Selections)—Hawthorne.
The Barefoot Boy—Whittier.
Planting of the Apple Tree—Bryant.
Brook Song—Riley.
Knee Deep in June—Riley.
A Sudden Shower—Riley.
The Tiger—Blake.
The Summer Shower—Reed.

VI. READING

Selections from all of the above list. Treat short selections intensively for good oral expression. Memorize many poetical selections thus studied. Use dialogue and bits of description from prose literature. Dramatize freely in this work.

In addition to above list much home reading is done in connection with the history, geography, and nature study.

VII. LANGUAGE

Oral—Increasing demand upon the child for accurate expressive language in oral recitation in all subjects. Encourage use of new words. Correct
faulty diction and make child constantly more responsible for correcting his own errors oft repeated. In language class have periods for oral story telling in which children tell to class stories selected by themselves and studied at home. Good points in telling emphasized in class criticism. Oral work in preparation for written subjects chosen most frequently from other subjects,—literature, history, geography, accounts of excursions, talks heard in chapel, etc. In reproducing parts from literature studied, encourage use of author's vocabulary, to increase child's. Give opportunity for original thought and expression by form of assignment, e.g., "A Visit to Sparta," "The Greatest Man in Greek History," etc.

In connection with both oral and written work do simple outlining to guide the telling, using "Introduction" and "Conclusion." Picture study, followed by oral description or story suggested by picture. (See list of pictures by grades.) Study of descriptive poems, such as "November," by H. H. Jackson; "The Cloud," by Shelley; "Daybreak," "Rain in Summer," and "The Day Is Done," by Longfellow; "To the Dandelion" and "The First Snowfall," by Lowell,—this study to be followed by original descriptions of similar scenes by the children, sometimes in verse, oftener in prose.

Written—Subjects for the written work have been suggested in points under oral language. In addition to these there should be some writing of poems, subject suggested by season or important event, and the writing of one original play, based upon the work.

The compositions should be short, and often written during class period. Opportunity should be given for class criticism and suggestion. Often, but not always, work should be revised and rewritten after this criticism. Frequently paragraphs should be chosen from compositions and written upon the board for class correction. Compositions should hold to two paragraphs or at the most three.

Letter Writing:
Continue the informal social letter.
The business letter in writing for some needed school material.
A simple invitation and acceptance, in connection with some of the social events of the school.
Use models freely.

Technical Points to Be Emphasized:
Review of points brought out in fourth grade.
The simple sentence studied more critically. Subject and predicate, noun, verb.
Use word, phrase, and clause modifiers.
Comparison.
Use of forms of objective case of pronouns recognized; emphasis placed upon prepositions having compound object, e.g., "for you and me," "between you and me," etc.
Continue work on irregular verb forms and adjectives and adverbs commonly misused.
FIFTH GRADE

Studies in English Language, Bk. I, Parts 1 and 2—Robbins and Row.
Text: Robbins and Row, Book I.
Fall Term, pp. 2-52, Part I. First half of Part I.
Winter Term. Last half of Part I.
Spring Term. Part II.

VIII. SPELLING

Much use of dictation. Children use for spelling, parts of poems memorized, paragraphs studied, etc., as well as lists of words selected from work. Continued use of the dictionary. Emphasis upon the syllabication and accent in words and the use of pronouncing key at bottom of page.
Common synonyms and homonyms.
Text: New World Speller. World Book Co.

IX. MATHEMATICS

FALL TERM
Review and drill upon multiplication tables, and rapid addition and subtraction by endings.
Long division continued. Divisors of three digits.
Review of four fundamental operations to give rapidity and accuracy.
Writing numbers through billions.

WINTER TERM
Common fractions. Addition, subtraction, multiplication and division of common fractions. Apply in science, cooking, construction.

SPRING TERM
Decimal fractions, developed from writing United States Money.

Texts to be used: Myers, Book II, part 1.
Sources for practical problems throughout the year are to be found in the work in nature study, cooking, manual training, and various forms of construction. Such problems have been developed as follows:
From the garden work, measurements in plotting the garden, problems in United States money and decimals in selling produce.
From cooking and construction, much use of common fractions, measures, linear and liquid, and multiplication tables.

X. MUSIC. General Outline for the Year

Songs—The rote songs attempted now may belong to the class called "art songs," and should be developed until something really artistic is attained. Occasionally a two-part song, such as Kucken's "Swallows,"
should be given by rote. Folk songs, and selections from "The Indian Book" by Curtis.

Rhythm—Recognition of certain rhythms of more complicated character than hitherto used, i.e., such as the "Bolero" and the rhythms of Spanish and Polish dances. Formal use of percussion instruments with such a selection as Gillet's "Entr'acte."

Ear Training—See Grade IV. Three-part chording. Translation into syllables of phrases containing chromatics (5 4, 5–3 2, 3–6 5). Natural and melodic minor scales used occasionally. Absolute pitch—tonic (135) and dominant (572) triads in key of C.

Original Expression—Composite and individual productions of settings to original verses or stanzas selected. First attempt made to write them down. Rhythmic structure developed first.

Voice Culture—Principles applied constantly to all singing. Individual work.

Reading—Daily exercises in reading, stress being laid on the ability to apply words to tones immediately and on putting two parts of easy songs and exercises together at first reading.

Written Work—Three times each week, two-minute periods. Rhythms as well as melodic forms pictured with notes.

Fall Term

For explanation of table reference see page 152

Songs:

"Cradle Song"  Brahms.
"The Indian Baby"  v. 1. p. 93.
"Marching Song"  v. 11. p. 96.
"Thanksgiving Song"  Himmel.
"Doxology"  Dykeo.
"Calm on the Listening Ear"  l. p. 96.
"The First Christmas Song"  Gounod.
"Nazareth"  

Songs:  Winter Term

"Old Year and New"  l. p. 3.
"Snowflakes"  Cowell.
"Winter Lullaby"  DeKoven.
"Easter Song"  l. p. 28.
"Roy's Horse Enjoys a Gallop"  w. p. 46.
"Lord Lovell"  w. p. 16.

Songs:  Spring Term

"Hark, Hark, the Lark"  Schubert.
"The Bobolink"  b. 11. p. 32.
"Cherry Blossoms"  w. 1. p. 30.
"Spring Song"  w. 1. p. 8.
XI. WRITING

The written work upon paper should be almost exclusively with pen and ink in this grade. Insist upon care in all written work. Formal instruction in penmanship, working more and more for "arm movement" and control. Use made of the blackboard with children whose sense of letter form is poor.

XII. PHYSICAL TRAINING

Marching:
- Facings, simple tactics.
- Figure marching.
  - Diagonal.
  - Twos.
  - Fours.
- Calisthenic marching.
  - On toes, heels, with bent knees.
  - Hands on hips, behind neck, overhead.
- Quarter wheeling.

Floor Work:
- Swedish gymnastics.
  - Dress forward.
  - Dress to right and left.
  - Facing, marching steps forward and backward.
  - Standing foot placings.
  - Hips firm, opening and closing feet.
  - Hips firm, feet apart, knee bending.
  - Hips firm, head twisting.
  - Hips or neck firm, trunk bending, backward and sideward and forward.
- Arms stretching.
  - Cross standing, leg raising sideward and forward.
  - Standing, free jumping forward.
  - With ¼ and ½ turn free jumping forward.
  - Standing, arm flinging.

General activity.
- Wood chopping.
- Chicken wing.
- Jumping Jack.
- Rowing.
- Swimming.
- Anvil strike.
- Steamboat.
- Lower chest expander.
- Strike hands overhead and under right and left knees alternately.

Rhythm and Folk Dances:
- Schottische step.
- Heel—toe—polka.
- Bleking.
Swedish clap dance.
Finnish reel.
How—do—you—do?
Bean Porridge Hot.

**LIGHT APPARATUS WORK:**
Wands. Raising forward—forward upward—sideward—to chest—behind neck. Combine with steps—touch steps, lunges, jumps, and facings.
Dumb-bells. Same as wands.

**APPARATUS WORK:**
Walking on balance.
Ladder work, hanging by hands.
Combine with knee flexions.
Jumping, with jump standards and rope.
Swinging on rings.

**GAMES:**
Dodge ball.
Three Deep.
Last couple out.
Center base.
Day and night.
Relay races.
One old cat, two old cat.
Grade VI

I. HISTORY

Medieval history is the general topic for this grade, the purpose of the work being to continue that of previous grades and to lay a foundation for the study of American history in the seventh grade.

Children at this age are interested in the deeds of chivalry and the heroic adventures of the heroes of the Middle Ages. The study is still made chiefly through picturesque story and biography, but a more formal use of reference books is introduced and children are encouraged to look up topics for the recitation. The keeping of outlines of the work covered is also done. The children learn to outline the subject, and have the benefit of class criticism before placing the outlines in their note-books.

The texts used by the children are Harding's "Story of the Middle Ages," "Famous Men of the Middle Ages," and "Great Names and Nations." The following outline of topics is suggestive for the work, but is used merely as a guide to direct the teacher. It is flexible and subject to change as the needs of the class may require.

Throughout the history work constant use should be made of outline maps. Some topics under the age of great revival should be treated in detail, especially such as wool manufacture, invention of printing, manufacture of paper, gunpowder, etc. Children will enjoy and profit by tracing the processes from beginnings, reviewing and extending previous knowledge. The outline for the year is short enough to permit such study. There will be many correlations between art, handwork, and history. The aim will be to leave the class at the end of the year with a background for the study of the history of their own country and the rapid progress of the world up to the twentieth century.

FALL TERM

Roman History:
Roman History reviewed.
Roman Kings.
The Roman Republic.
The Roman Empire.
Constantine.
The spread of Christianity.
The founding of Constantinople.
Theodosius I divided the empire between two sons.
The history of the Roman Empire from that time on becomes involved in conflict with the barbarians.

Medieval History:
Ancient Germans; where they lived, their customs, occupations, myths, etc. Locate the chief Germanic tribes.
The invasion of the barbarians.
Attila, the Hun.
Genseric and the Vandals.
Theodoric, the East Goth, and his struggle with Odoacer.
Justinian conquers Italy.
The Lombard invasion.
The end of the Western Empire.
The beginnings of England.
Anglo-Saxon conquest.
Change of name Britain to England.
William the Conqueror.
The beginnings of France.
Rise of Franks under Clovis.
Greatness of Empire under Charlemagne.
Charlemagne.
The man.
His conquests.
Contrast empire at beginning and end of reign.
His good government.

Winter Term

Medieval History (Continued):
The Northmen.
How Charlemagne's conquest brought them closer to southern Europe.
Their deeds.
Invasion of France.
Invasion of England, story of King Alfred.

Feudalism and Chivalry.
Life of castle.
Life of village and town.
Life in the monastery.

Mohammed and the growth of Mohammedan power.
Conquest of Arabia, Egypt, and Northern Africa.
Conquest of Spain.
Charles Martel and Pepin.
The Crusades.
What they were.
How they began.
Stories of knighthood and chivalry.

Great characters in the Crusades.
Peter the Hermit.
Richard the Lion-hearted of England.
Frederic Barbarossa of Germany.
Philip of France.
Saladin.
The Children's Crusade.
Result of Crusades.
Contact of nations, growth of intelligence.
SIXTH GRADE

Commerce promoted.
Intellectual revival of Europe.
The Dark Ages summarized.
Fall of Roman Empire.
Ignorance spread, due to
   Change in languages.
   Results: No books people could read.
   Writing almost a lost art.
   Writing materials scarce.
Superstition.
Manufacture primitive and undeveloped.
Commerce checked.
Learning preserved by the church.
The Hundred Years' War.
The Black Prince.
Joan of Arc.

SPRING TERM

MEDIEVAL HISTORY (Continued):
Capture of Constantinople by the Turks.
The age of revival.
Cities—growth of towns.
Manufacture.
   Woolen cloth and silk fabrics.
   Making paper.
   Review early processes and trace development.
   Centers of these industries founded then and still im-
   portant.
Commerce.
   Influence of crusades.
   English commerce.
   Commerce of South Europe.
Houses improved.
   Chimneys.
   Use of window glass.
Founding of banks.
   Show in connection with Arithmetic the value of banks in business
   transactions.
Revival of learning and art.
Greek students flee from Constantinople.
Invention of printing: Gutenberg.
The Gothic Cathedral the characteristic art.
   Study of cathedrals.
   Comparison of types.
Other great inventions.
   Gunpowder introduced into Europe.
   Compass, cross-staff, and astrolabe.
   Paper made from linen rags.
The period of maritime discoveries.
COURSE OF STUDY FOR THE TRAINING SCHOOL

The new trade routes needed.
Reasons why needed.
Discoveries of new routes by
Portuguese.
Spanish.
English.
Stories of Vasco de Gama, Columbus, the Cabots, Magellan, Americus Vespucius.
The three nations who were to be chief explorers and colonizers of new world.
England.
Spain.
France.
Their power at this era.
Their characteristic life and interests.

II. HANDWORK

The manual work of this grade is concentrated upon one line of work at a time, permitting the longer period for work needed in this grade. The art work devotes on the average three half-hour periods each week to the more technical phases of the work, and one hour to handwork involving application of design,—textiles, pottery, etc. Cooking and shop work, for girls and boys separately, are allotted one and one-half hours per week through the fall and winter terms. During the spring term book-binding takes the place of these for both boys and girls. This craft has proven most satisfactory for this grade, the interest growing, as it does, from the historical side, and the process being not too difficult for workmanlike results. Out of the work grows added respect for books and care in their handling.

Art—Mediums: Same as Grade V.

Drawing and Painting:

Representation—Plant forms, pose, animals, landscape, still life. Continuation of study of perspective. Principles involved in drawing of simple rectangular and cylindrical objects and in outdoor sketching of houses, roads, streets, etc. Special emphasis on handling of pencil; broad mass work in tones of value scale.

Design—Motives from nature and in connection with the study of medieval history, applied to wood block and stencil, and used in illuminating books for binding, portfolio covers, etc.

Decorative drawing of landscape and of plant forms used for Christmas cards or Thanksgiving greetings, and in illustration of books.

Clay—Pottery forms designed for use either at school or at home, fired with simple glazes.

Picture Study—See list by grades, pages 156-157.

Textiles (In connection with art work)—Application of wood block and stencils to textiles, in making portfolio covers for school, pillow covers, curtains, etc. Simple embroidery stitches will be used. (Stories of medieval tapestry in this connection.)
Woodwork (Boys: two terms, fall and winter)—More advanced work in elementary mechanical drawing, objects that can be constructed from thin wood, including ornamentation and design that can be applied to the same by means of a knife. The use of more advanced tools in the shop; finishing the objects with stains and paints. Various information as to materials used.

Cooking (Girls: two terms, fall and winter)—The work will cover a study of the food elements,—carbohydrates, proteids, fats. Methods of cooking starch; combination of materials as in rice pudding, corn-starch, etc., will be the general topic for the first term, and the cooking of proteids, eggs, and milk, and making of simple batters, the general topic for the second term.

Bookbinding (Boys and girls in the spring term)—In connection with the study of the monastery, the children will bind a book, using the sewing frame and either tapes or cords. Class will examine the binding of many books and learn to distinguish some of the features of a well-bound book. A visit to a local bindery will be made when possible.

Printing—it is hoped to begin the study of printing with the boys of this grade who will elect it hereafter in seventh and eighth grades and carry on the work of the school press.

General Construction Work—in connection with the art work much is done during the year, such as wood block printing, making of a stained-glass window with paper, etc.

III. GEOGRAPHY

Physical Geography (Five weeks)—The purpose of the study of relief in this grade is to make the pupil's mind sensitive and responsive to topographic forms, and to know them in relation to their influence on the distribution of life.

Work of running water:

Outdoor work,—excursions to Normal Pond, Cooper's Glen, Kalamazoo River.

Sources of running water.

Location of streams, among hills, in meadows.

Work pupils have seen it do.

The stream's load.

Proofs that streams carry materials.

What the load consists of.

How stream carries its load.

Conditions under which load is deposited.

River at flood and in dry times. Use pictures.

Deposits made by running water.

Deltas,—effect upon lakes.

Alluvial fans.

Topographical effects upon surface of land outside immediate valley of stream.
Trace a gully to its head and work out way in which it is developed.
Condition of land around Normal Pond before gully action commenced.
Present condition.
Future condition.
Usefulness to man of land at each stage.
Study of pictures illustrating all ages of topography interpreted as to effect upon man.
Conditions aiding and preventing gully formation.
In connection with field work make clear the terms "river system," "river basin," "divide."
Select leading ones of each continent.

Ground water.
By study of water supply of Kalamazoo, work out
Proofs of existence of ground water.
Source.
How it gets into the ground.
Movement.
Formation of wells and springs.

Glacieration.
Studied in explanation of topography and great variety of rocks of Kalamazoo.
From slides and stereographs bring out the chief features of glaciers.
Of what glacier's load consists.
Why deposited.
Forms resulting.
Terminal moraines.
Ground moraines.
Outwash aprons.
Kettle holes.
By pictures contrast topography of northern and southern United States.
Effect upon soils.
Formation of lakes.
Origin of celery swamps.

Mathematical Geography (Four weeks):
Form of the earth.
Throw shadows of solids upon wall. Note that sphere alone casts circular shadow. Compare with shadow of earth during eclipse.
Meaning of directions up and down.
Size of earth.
Calculate time required for passing around it.
By diagram compare size of earth and sun.
Movements of earth and their effects.
Rotation.
Proofs of westward movement.
Determines cardinal points.
Effect upon man of division of day into periods of light and darkness.

Revolution.
Early in fall commence daily observation of length of shadow cast at noon by rod in south window.
Cause of lengthening shadows. (Continue weekly observations of length of sun shadow throughout year. Record on paper and date. Compare length of shadow with length of day.)
Heating effect of oblique and perpendicular rays compared by noting space covered on different parts of sphere by a beam of sunlight admitted through hole in a piece of cardboard.
By means of a spinning top prove that a rapidly rotating body keeps its axis constant in direction.
Effect upon distribution of heat and light if earth revolved with axis perpendicular to plane of its orbit.
Compare with actual conditions.
Effect when axis is inclined.
Upon heat.
By carrying an inclined rotating globe around a central sun, work out division of earth into zones. Recall observations upon changing altitude of sun. Explanation of seasons. Effect of change of seasons upon life in temperate and polar zones.
Upon length of day.
Compare time of sunrise and sunset for several weeks.
Compare length of winter and summer day in each zone.
Compare by graphs length of day June 21 and Dec. 21 on Arctic Circle, at Charleston, on Equator, at Valparaiso, on Antarctic Circle.
Effect upon plant life of long nights of high latitudes.
Northern limits of maple, peach, grape, oak. Reason.

Latitude and Longitude.
Compass points in schoolroom; establish north-to-south line.
How north and south lines on map are determined.
By observation of rotating globe and shadow lines bring out association of meridian lines with midday shadow and the convergence of meridians toward the poles.
Numbering of meridians.
By rotating a globe prove that places east have sunrise before places west, and that all places on the same meridian have the same clock time.
To fix ideas of time and distance, learn meridians of Greenwich, New York, New Orleans, Honolulu, Calcutta.
How east and west lines are determined.
Measurement of distance by degrees of latitude and longitude.
Study maps to determine to what extent parallels and meridians are used as boundary lines.
Altitude and latitude (suggested). It helps to clear up the pupil’s idea of latitude and its related facts.

Maps.
Interpretation of various kinds, physical and political.
Use of map scales. Map schoolroom to different scales.
Map projections.
Orientation of maps.

South America (Three weeks):

Introduction.
Discussion of some recent current event with which pupils are partly familiar.
Study of pictures representative of human, plant, and animal life.

Position.
With reference to land mass.
On globe.
On Mercator’s map of the world.
With reference to North America.
With reference to latitude, longitude, to oceans.

Form.
Compare with Africa and North America.
In what heat belt is broadest part? Narrowest part?

Size.
Compared with other continents.

Coast line.
Compare width of continental shelf on east and west coast.
Compare coasts as to regularity.
Locate chief harbors, Cape St. Roque, Cape Horn.
Straits of Magellan, bordering islands. Associate some interesting point with each.

Relief.
Studied from sand model, chalk modeled map, and physical map.
Andes Highland.
Location.
Direction of trend.
Extent, length, width, height.
Compare eastern and western slopes.
Cause of Fiord coast.
Plateau.
Location.
Area.
Height.

Guiana and Brazilian Highlands.
Location.
Extent.
Compare with Andes.
Central Lowlands.
Orinoco Plain, Amazon Plain, Paraguay-Parana Plain.
Patagonia, Pampas area.
Location.
Proportion of continent occupied by lowlands.

WINTER TERM

SOUTH AMERICA (Continued):

Climate.

Approach the detailed study of the earth’s climate by a discussion of the conditions which determine the habitability of any region, leading to conclusion that the controlling factors are the seasonal distribution of heat and rain. Make study of conditions which control such distribution.

Temperature,—as determined by

Latitude.

Position of Equator.

Effect of location of South America on temperature.

Compare conditions in Amazon basin with those farther south.

Altitude.

Compare winter and summer temperatures of Quito and Para.

Teach reading of isothermal charts. From January and July isothermal charts locate heat equator; compare temperatures of eastern and western coasts and interior leading to conclusion that other factors besides latitude and altitude determine temperature.

Winds. Planetary.

Cause. By experiments prove that heated air rises and cold air falls. Reason for such movements. (Show convection currents in water by heating glass tube or dish of water in which are suspended dried ink particles.)

Where is hottest place in South America?

Effect of heat on air over this region? Result.

Indicate Belt of Calms on map of South America; of world.

If heated air over Equator rises, what will take its place?

Result. Name trade-winds. Indicate on sketch map of South America areas over which they prevail. Locate trade-wind belts on world map.

Teach fact of deflection of winds, but give no reasons.

What portions of South America are not affected by Trades?

Teach fact of existence of Westerlies and Horse Latitudes.

Have pupils represent wind belts on outline map of world.

Effect of winds upon temperature.

From Nature Study experiments pupils know that land heats and cools more rapidly than water.

Will land or water be warmer in summer? In winter?
Which will show greater extremes of temperature?
Compare effects of land and ocean winds upon the temperature
of a region.
Verify conclusions from study of isothermal chart of South
America.

Rainfall.
Review Nature Study work on proofs of existence of water
vapor in the air, sources of water vapor, how transported
from place to place, cause of condensation.

Conditions in Belt of Calms.
Verify conclusions by reference to rainfall map of world.
Assert fact of shifting of Calm Belt. Compare location of
equatorial rain belt in July and January.

Trade Belts.
Temperature of winds.
Moisture capacity.
Effect on temperature of crossing Guiana and Brazilian
Highlands; on rainfall. Verify conclusions by reference
to rainfall map of South America.
Contrast rainfall on east and west slopes of Andes.
Effect of shifting of rain belt upon rainfall of north and
south slopes of Amazon basin.

Region of westerlies.
Effect of winds blowing over Andes of Chili upon rain­
fall of eastern and western slopes.

Horse Latitudes.
Direction of atmospheric current.
Temperature,—relation to rainfall.
Locate regions of slight rainfall in South America due to
Horse Latitudes.

Summary.
On Mercator map of world indicate
Chief highlands.
Wind belts.
Rainfall as determined by above.
Detailed study of physiographic divisions. Emphasize the response
of human, plant, and animal life to climate and relief.

Andes.
Northern Andes.
Character of mountains.
Volcanoes: Chimborazo, Cotopaxi.
Drainage—direction of streams, how determined.
Magdalena River.
Location.
Length.
Navigability.
Delta.
Magdalena Valley.
Climate,—influence upon location of towns.

Products.

Minerals.

Detailed study of cacao.

Production of the fruit.

Preparation for market.

Producing regions of South America.

Commercial routes:

Cities: Bogota, Barranquilla, Guayaquil, Quito.

Middle Andes.

Character of mountains.

Plateau of Bolivia.

Lake Titicaca,—size, elevation, source, use.

Climate.

Compare climatic conditions in desert of Atacama with those on eastern slope of Andes in same latitude, and in regions lying directly north and south.

Animals,—llama—appearance, use.

Products and industries.

Detailed study of silver, nitrate, and cinchona industries.

Story of Incas.

Commercial routes.

Cities,—La Paz, Lima, Callao.

Southern Andes, including coast strip.

Character of mountains.

Cause of irregular coast.

Highest peak,—location, elevation, ascent.

Climate,—contrast eastern and western slopes.

Drainage,—compare rivers flowing eastward and westward.

Products,—effect of variety in topography and climate upon products and occupations.

Commercial routes.

Cities: Santiago, Valparaiso.

Guiana Highlands.

Extent, elevation, and character.

Topography compared with that of region directly north.

Climate,—contrast conditions of northern and southern slopes.

Products.

Account for distribution of population.

Brazilian Highlands.

Extent, elevation,—comparison of eastern and western slopes.

Influence upon rivers.

Climate.

Products and occupations.

Forests,—location accounted for. Region adapted to agriculture.

Chief agricultural products.

Detailed study of coffee.
Conditions for coffee raising.
Production.
Preparation for market.
Collecting centers.
Natural advantages of situation of Rio de Janeiro as coffee port.
Chief ports: Rio de Janeiro, Santos, Bahia, Pernambuco.

Amazon Plain.
Extent of basin, its character, direction of slopes.
Amazon River.
Size, navigability. Detritus carried to sea.
Alluvial deposits compared with those of Mississippi.
Climate.
Temperature, rainfall.
Effects of migration of Calm Belt upon rainfall.
Relation to plant life; selvas described.
Relation to animal life.
Effect upon man inferred from study of population map.
Products of forests. Special study of rubber.
Varieties of rubber plants.
Conditions favorable to growth.
Cultivation.
Preparation for market.
Collecting centers, reason for location.
Shipping port, advantages of location.
(Study other lowlands in similar manner.)

Review continent by study of each country according to following outline:
Location; boundaries formed by what natural features; general physical character; climate; products; people; advantages of location of cities; government at present; reason for stability or instability of government. In all continental work, give great attention to the making of progressive maps.

**SPRING TERM**

**AFRICA (Seven Weeks):**

Introduction.
As in South America.
Begin detailed study of Africa with aim of determining reasons for its slow development.

Position, form, size as in South America.

Relief.
From physical and modeled maps determine general distribution of mountains, plateaus, lowlands. Note plateau form of continent and effect this has had upon settlement of the mass.
Northern and southern Africa compared in height.
Abyssinian plateau.
Location, height, area.
Mountains.
Ranges, Atlas.
Location, trend, height, general character.
Peaks, Kilimanjaro.

Great Rift Valley.
Location, origin, peculiar features, importance.

Lowlands.
Location, characteristics.

Coastline.
Discuss characteristics of an ideal coastline.

Coastline of Africa.
Relation to relief.
Effect of regularity upon spread of civilization into interior.
Study historical importance of northern, western, and southern coasts.
Locate, describe, and give points of interest about chief gulfs, capes, and islands.

Note Madagascar as one type of an oceanic island.

Climate. (Make constant comparison of conditions with those of South America.)
General effects of extent in latitude upon temperature, wind belts, and rainfall.
Study distribution of temperature as shown by January and July isothermal charts. Note annual ranges in northern, central, southern portions, on coast and in interior.
Influence of highlands and lowlands upon temperature.
Seasonal rainfall distribution.
Life effects of migration of Calm Belt.
Location and cause of tropical forests and savannas.

Direction of winds and extent of trade-wind belt.
Effect of direction upon capacity for moisture.
Relation to desert.
Relation of position of highlands and lowlands to winds.
Life conditions on trade-wind coasts.

Effect of westerlies on western coast of southern Africa.

Horse Latitudes.

Drainage.
Relation to relief.
Relation to distribution of rainfall.
Discuss characteristics of a river most useful to man.
Apply to African rivers.
Effect of character of rivers upon development of Africa.

Physiographic Regions.
Nile Basin.
Model the region.
Location in climatic belts.
Divisions.
Upper Nile to Khartum.
   Lakes, tributaries, volume, sediment.
Lower Nile to Cairo.
   Reason for absence of tributaries.
   Cataracts.
      Cause.
      Effect upon commerce.
   Width of valley.
 Cairo to the sea,—Nile delta.
   Formation.
   Shape.
   Character of principal distributaries.
   Account for location of Cairo and Alexandria.
Nile floods.
   Cause.
   Time required for rise and fall of the Nile.
   Effect upon soil.
      Study origin, character, and importance of flood plains.
      Develop idea of aggrading work of rivers.
   Region benefited.
   Effect upon time of planting and harvesting and upon character of crops produced.
   Effect upon prosperity of Egypt of regulation of floods by man.
Study life of Alexandria and Cairo.
   History.
      Pyramids, sphinx, and associated history.
      English influence in Egypt.
Congo Basin.
   Position and chief divisions of river.
   Compare with Nile and Mississippi as to size, volume, and sediment.
      Relation to rainfall.
History of Congo River.
   Character of its different divisions:
      Tanganyika and Stanley Pool.
   History of discovery and exploration.
   Trade and commerce on Congo.
   People. Study pygmies.
   Animal life.
Atlas Mountains region.
   Relief.
   Climate.
   Effect of topography and climate on products and occupations.
People.
   Race.
   Characteristics.
   Political divisions.
Study life of Tangiers, Fez, Algiers, Tunis, Tripoli.
Relation of region to European powers.

South African region.
Considered as above.
Compare with Atlas Mountains region in as many ways as possible.
Products. Make special study of ostrich farming, diamond and gold mining.
Study life of Cape Town, Cape Elizabeth, Pretoria, Johannesburg, Kimberley.
Means of communication and commerce.
With rest of Africa.
With world.

Sahara.
Location in Africa.
Size compared to United States and Europe.
Location in reference to wind and rain belts.
Cause. Locate other deserts in same latitude.
Study Sahara as illustrating desert conditions, noting
Absence of moisture and rain.
Diurnal temperate range.
Oases.
How formed, size, fertility.
Wadis.
Wind action.
Dunes: how formed, size, migration.
Wind erosion.
Vegetation.
Animal life.
People.
Permanent settlers: homes, occupations.
Pastoral tribes: homes, methods of travel.
Caravan traders: description of caravan trade, commercial importance, caravan routes.
Products,—kind, value.
Sahara as a barrier to man, animals, plants.

Savannas and Jungles of Equatorial Africa.
Location, climate, surface.
Distribution of grass lands and forests in reference to climate and topography.
Products.
Animal life.
Natives.
Characteristics of the tribes.
Conditions determining occupation of a tribe.
Government, war.
Make special study of Sudan tribes.

Partition of Africa among European powers.
Reasons for rivalry of European nations to secure Africa.
Effect of climate upon settlement by Europeans.
Areas at present claimed by different nations.
Effect of European occupation upon natives.
Study lives of Stanley and Livingston.

AUSTRALIA (One Week):
Introduction, location, size as in previous continent study.
Why a continent rather than an island.
Coastline.
Large indentations.
Comparing eastern with western and southern coasts.
Extent and importance of Great Barrier Reef.
Relief.
Distribution of highlands and lowlands.
Climate.
From position and relief, state climate to be expected.
Determine climatic features from isothermal and rainfall charts.
Cause of desert.
Products.
Peculiarities of animal and plant life.
Study wheat and sheep industries.
Chief mineral products.
People and Industries.
Character, distribution, and occupations of native races.
Leading occupations of people, exports.
Special study of life in Sydney and Melbourne.
Make clear that they are as highly civilized as American cities are.
Compare population, railroad, climatic and relief maps.
History of settlement by English.
Islands.
Tasmania, New Zealand.
Location, importance.

JOURNEYS TO THE ISLANDS OF THE SEA (Four Weeks):
Note location, nation by which owned, reason for importance, characteristic life.
New Guinea.
Fijis.
Hawaii.
Philippines.
East Indies.
Ceylon.
Madagascar.
Canaries.
Azores.
West Indies.
Bermudas.
The texts used by the children are Dodge’s “Advanced Geography,” Carpenter’s “South America,” Carpenter’s “Africa,” and Carpenter’s “Australia and the Islands of the Sea.”

IV. NATURE STUDY

FALL TERM

**Geographic Nature Study** (Study of materials of which earth is made):

Crosby, “Common Minerals.”

From study of granites develop idea of rocks composed of minerals. Recognition of chief characteristics of the common rock-making minerals,—quartz, felspar, mica, hornblende, magnetite.

Visit gravel pit to study and make collections of common rocks,—granite, diorite, felsite, quartzite, slate.

Rock weathering.

- Study work of the air.
  - Of its elements.
- Of temperature changes.
- Study work of mosses and lichens.
- Study work of animals.
- Study work of growing things.
- Study work of underground water.

Products of rock weathering.

- From material dissolved out of rocks, limestone, flint, salt.
- From material left behind, sandstone, mudstones.

Soils of Kalamazoo.

- Name the common soils found.
- Compare these soils as to character, use, formation.
- From railroad cut, study changes in color and coarseness with increasing depth.

**Elementary Physical Nature Study**—This study supplements the work in geography and satisfies the child’s interest in the world about him, especially by explaining common phenomena and simple machines. The experiments indicated should be supplemented by others devised by teacher and pupils, and as far as possible, the experiments should be performed by the pupils. Note-books should be kept in which are recorded the chief points developed in the class period.

*References*:

- Elementary School Curriculum, Teachers’ College. 6th grade.
- First Science Book, Higgins.
- Nature Study for Grammar Grades, Jackman.
- Practical Nature Study, Coulter.
Topics:

Air is a substance and occupies space.

Experiment.
Pack dry handkerchief into bottom of dry tumbler and push tumbler, bottom upward, into water.

Position of air with regard to earth.
By experiment prove that air exists in water and in the ground.

Proofs of height to which air extends.

Composition of air.
Each substance considered in its direct life effects.
Oxygen,—the element that makes things burn.

Experiment.
Generate oxygen and burn various substances in it.
Compare combustion in oxygen and air.
Explain common lamp.

Amount of oxygen in air.
Teach term oxidation. Study specimens of minerals (common metals) that are undergoing oxidation. Relation to man and his activities; respiration; methods of extinguishing fire.

Carbon Dioxide.

Experiments.
Generate carbon dioxide and attempt burning various substances as with oxygen—explain.
Limewater test for presence of carbon dioxide.
Test breath and air in which oil stove has been burning.

Amount in air.
Uses.
To plants.
In the heating of the earth.

Nitrogen.

Experiments.
Generate and attempt burning substances in it.
Proportion in air.
Value in air.

Water Vapor.

Proof of presence in air.

Air is compressible and elastic.
Illustrate meaning of terms compressibility and elasticity.
Explain action of bicycle pump and pop gun.

By illustrations, teach fact that when force has been used to compress air, the air will exert the same amount of force in trying to return to its former volume, and that energy may be stored by forcing air into strong tanks under heavy pressure, the tanks be carried about, and work be done by the force which the air exerts when allowed to escape.

Mechanical uses. (Pupils make list of uses. Home work.)
Application.
   Difference in density of atmosphere at and above sea level.

Air has weight and exerts pressure.

Experiments.
   Exhaust air from flask. Weigh. Admit air.
   Compare results. Exhaust air from tin can or thin glass bottle.

Greatness of atmospheric pressure.
   Pressure at sea level.
   Pressure on mountains.
   Why we are not crushed by its weight.

Some effects,—based upon principle that whenever a partial vacuum exists, the atmosphere tends to enter or to force something else in.

Experiments.
   Construct and explain action of the mercurial barometer.
   Explain common lifting pump.

Study of weather.
   Meaning of term “weather.”
   Effect of changes of weather upon plant life.
   Begin recording daily weather observations upon bristol-board chart.
   Indicate wind direction by arrow.
   Velocity of wind.—calm, light, brisk or high.
   Sky,—clear, partly cloudy, or overcast.
   Precipitation.
   Pressure as indicated by aneroid barometer.
   Remarks,—any item of interest not included under other headings.

Monthly summary.
   General direction of wind for month.
   Wind direction when temperature was warmest.
   Wind direction when temperature was coldest.
   Direction of wind during rainstorms.
   Direction of wind during snowstorms.
   Direction of wind during cloudy weather.
   Direction of wind during clear weather.

Begin study of daily weather map, noting weather conditions at a few stations and areas of clear, cloudy, rainy, snowy weather with prevailing winds in these areas.

Biological Nature Study—In connection with fall field trips, class should recognize such weeds as thistle, dandelion, milkweed, burdock, mullen, plantain, sandbur, ragweed and pigweed, and note seed dissemination. Make a special study of English Sparrow throughout the year,—habits, relation to man and birds.

Hygiene (One period weekly throughout year):
   Text: Gulick, Hygiene Series, Book III, “Town and City.”
WINTER TERM

PHYSICAL NATURE STUDY (Continued):

Heat and its relation to the atmosphere.

Sources.

The sun.

Experiment: Focus sun’s rays through a convex lens upon tissue paper.

How heat is transmitted to the earth.

How heat gets started from the sun.

How it gets through the space between the sun and the earth.

How it gets through the gaseous part of the earth to the solid and liquid parts.

How the heat is received on the solid and liquid parts of the earth.

Combustion,—heating of buildings.

Friction,—rub metal button on piece of cloth.

Percussion,—hammer a small piece of lead.

Compression,—feel of bicycle pump which has been in use for a few minutes.

Chemical action,—slake lime; heating of our bodies.

Electricity,—electric light bulb.

Effects of heat.

Change in volume.

Of solids. Measure length of long iron nail, before heating, when red hot, after cooling.


Practical uses of expansion and contraction.

Change in state—evaporation.

Experiment: Change of ice to water and then to vapor.

Transfer of heat.

Conduction.

Experiment: Heat one end of a metal rod. Test temperature at different points.

Relative conductivity of

Different metals.

Wood and iron.

Water and ground.

Make a list of good and poor conductors. (Home work.)

Convection.

In liquids. Admit warm colored water to bottom of flask of cold water.

In air. With lighted punk, test air movements around a lighted lamp, in different parts of the room.
Relation to air movements of earth.

Radiation.

Experiment: Hold hand over heated iron.
How heated bodies lose heat.
How atmosphere is heated.

Compare amounts of heat given off by pavements, water, grass, rock. Note summer and winter temperatures over land and ocean.

Moisture of the air.

Different states in which moisture may exist.

Evaporation.

By experiment determine effect upon rate of evaporation of temperature, surface exposure, change of air, nature of liquid.
Teach terms relative humidity, absolute humidity, saturation.
Effect of evaporation upon temperature. Illustration: effect of sprinkling streets.

Condensation.

Experiment to show cause.

Explain dew-point.

Dew.

Produce by experiment.
Conditions favoring formation.

Effect of frost upon plant life. Relation of interval between times of latest and earliest frosts to kind of crop produced. Common devices for protecting plants from frost.

Effect of frost upon rocks and soil.

Fog.

Produce by experiment.

Cause of fog on sea and land. Effect upon navigation.

Clouds.

Compare pictures of clouds and fogs.

Teach that clouds form only when air is cooled to the dew-point, and that this may occur when air is moving from warmer to cooler places,—
as from surface of earth upward or over mountains,
as from tropics to higher latitudes,
or by mixing cooler and warmer masses of air,
or by flowing over cold surfaces like icebergs.

Relation of direction and force of winds to cloud movement.

Rain.

Relation to clouds.

Explain rainfall gauge.

Snow.

Formation.

When a snowstorm occurs, observe following facts:

Appearance of clouds.
Direction from which snow is coming.
Size of flakes.
Forms of crystals studied under lens.
Formation of drifts.
As a protection to vegetation.

Hail.
Formation, shape, and size of hailstones.
Effect upon vegetation.

Biological Nature Study:
During the winter term, plot the school grounds for birds'-nests and make observational study of pigeons:
Varieties,—how brought about.
Parts of body,—wings, bill, tail, eyes, feet, etc.
Compare with rabbit and squirrel in relation to habit and habitat.
Adaptation.

Continue study of English sparrow.
Hygiene: Continue fall work.

Spring Term

Biological Nature Study:
Swimmers, birds of prey, waders.
Common types.
Parts of body.
Adaptation.

Bird calendar.

Trees:
Walnut and hickories,—what facts are common.

Insect Study:
Protective coloring.
May beetle (grub). Bring in grubs early and watch development.
When and where found. Use of grubs.

Study parts of an insect.

Mosses and Ferns:
Identification.
Spore reproduction.

Gardening:
Special problems to meet the needs of the class. Individual beds and projects.

Hygiene:
Fall and winter work, continued.

V. AND VI. LITERATURE AND READING

Fall and Winter Terms

Stories of Chivalry and Romance:
Robin Hood—Pyle. (Selected edition.)
Stories of King Arthur, Siegfried, Roland, the Cid.
Use: Mallory's "Le Mort d'Arthur."
Lanier's "Boy's King Arthur."
Lanier's "Boy's Froissart."
Frost's "Court of King Arthur."
Selections from certain of the "Idylls of the King," by Tennyson, such as "Gareth and Lynette."
The book in the hands of the pupils for reading will be Green's "King Arthur and His Court." All of the above list will be used for home reading and for the teacher to read to the children. Church's "Heroes of Chivalry and Romance" and Vol. IV of "The Children's Hour" contain good material.
William Tell (McMurry's Translation).
The story of William Tell in their history will give interest to the reading of this play.
Selected poems. (See Spring Term.)

REFERENCES FOR STUDENT TEACHERS' USE:
Robin Hood.
Allingham, William, Ballad book; Introduction and p. 159—.
Bulfinch, Thomas, Age of Chivalry, pp. 343-362.
Child, F. J., English and Scottish Popular Balads; Introduction and p. 254—.
Tappan, E. M., Old Ballads in Prose.

King Arthur.
Lanier, Sidney, Boy's King Arthur; Introduction.
Malory, Sir Thomas, Le Morte d'Arthur; Introduction.

Siegfried.
Anderson, R. B., Norse Mythology.
Mackail, J. W., Life of William Morris.

Morris, William, Sigurd the Volsung.
Winkel Horn, Frederik, History of the Literature of the Scandinavian North. tr. by R. B. Anderson.

Roland.
Baldwin, James.
Story of Roland.
Saintsbury, George. Flourishing of Romance; chap. 2, Chansons de Geste.

The Cid.
Chronicle of the Cid, from the Spanish by Robert Southey.
William Tell.
Francke, Kuno, History of German Literature, pp. 394-397.
McCracken, W. D., Rise of the Swiss Republic, pp. 92-104 (same article in Atlantic, Nov., 1890).
Robertson, J. G., History of German Literature, pp. 395-397.
Scherer, W., History of German Literature, v. 2, pp. 224-228.

SPRING TERM

MODERN WORKS—Following this chivalric cycle it will be well to change the reading to some modern works, such as Stockton’s “Fanciful Tales,” some of Kipling’s stories, with much work on poetry. The list here is open to much increase as classes continue in the work.

POETRY—The study of poetry is to be emphasized throughout the year. Such poems as “Arnold of Winkelried,” “Horatius at the Bridge,” “Friar Jerome and His Beautiful Book,” are studied in relation to the history. Poems of nature, such as “Song of the Chattahoochee,” Lanier; “The Cloud,” Shelley; etc.

VII. LANGUAGE

ORAL—In all work increasing demand for good expression. Dependent upon the needs of the class, continue the oral story-telling in the language period. The emphasis in all recitation periods should be about equally divided between the expression and the content. In other words, the teachers of geography, history, etc., should feel responsibility for oral expression equally with that for geographical and historical subject-matter.

WRITTEN—The aims are to bring out the individuality and develop the originality of the children and to teach a sufficient number of technical points in language to enable the child to compose a simple written description, narration, etc., correctly.
Emphasize three phases of writing,—narrative, descriptive, and expository. Topics are chosen from the work of the grade in geography, history, nature study, and literature.
Letter writing—friendly and business letters, invitations, acceptances, and regrets.
Original stories.
Character sketches.
Imaginary trips. and descriptions of real trips.
Picture and poem studies (see picture lists by grades).
Original poems.
Dramatization of scenes from history and reading.
Keeping a journal of school events.

TECHNICAL POINTS TO BE EMPHASIZED:
The unity of the paragraph.
Choice of words.
Recognition of the chief parts of every sentence.
The correction of common errors continued. Distinguish between such verbs as "learn" and "teach," "sit" and "set," "lay" and "lie." Review all previous work in this line.
The technical points should be brought out chiefly through criticism and correction of children's written work.

Text (In hands of the children):
Robbins and Row, "Studies in English, Book I."
Fall term: Studies 161-189.
Winter term: Studies 190-224.
Spring term: Studies 225-245.

VIII. SPELLING

Continued use of dictation and list of words selected from school work. Some home study. The simple rules of spelling—(1) doubling final consonant, (2) dropping final e, (3) changing final y to i—learned and applied, and examples found. Use "New World Speller," Grade VI.

IX. ARITHMETIC

Text: Myer's Arithmetic, Book II, pp. 112-245.

FALL TERM

Thorough review of the fundamental operations with integers.
Teach practical checks on multiplication and division.
Notation and Numeration.
Factors.
Multiples, taught by factoring method.
Common fractions.
  Objective work when necessary.
  Reduction to common denominator; to lowest terms.
  Addition and subtraction.
Decimal fractions.
  Notation and numeration.
  Addition and subtraction.
Problems.
  Give considerable attention throughout the year to methods of solving problems. Use step form of analysis and insist upon accuracy of statement in written exercises. Relate problems to daily life.

WINTER TERM

Common fractions.
  Reduction of mixed numbers to improper fractions and the reverse.
  Multiplication and division.
Decimal fractions.
  Multiplication and division.
Spring Term

Reduction of decimal fractions to common fractions and the reverse.
Bills and accounts.
Square and cubic measure.

X. MUSIC. General Outline for the Year

Songs (See Grade V)—In connection with Assembly exercises some patriotic songs will be learned, and the story of their origin related. Care taken to select songs with effective passages to utilize the tonal possibilities of the head register of boys in this grade. Example, "Spring Song," by Becker.

Rhythm—Encouragement of ability to picture songs and familiar composition through clapping or tapping. Scansion of short familiar stanzas, and writing of rhythmic form in notes. Toy instruments with Gillet's "Entr'acte."

Ear Training (See Grade IV)—Minor scales melodic and harmonic memorized. In part work, parts interchanged constantly.

Original Expression—Class or individual composition. Rhythmic form developed first and pictured.

Voice Culture—Exercises of a descending character. Especial care taken to preserve the beauty of the average boy's voice at this age.

Reading—Bearing distinctively on its reason for being, i.e., the ability to sing songs from sight by scale syllables, by word or vocalized with one syllable. Ability cultivated to put parts together at sight.

Writing—Applied to original composition.

Songs:

For explanation of table reference see page 152

Fall Term

The Last Rose of Summer
Robin Hood.
The Hunt Is Up
The Foresters
Tinker's Song, "Robin Hood"
Sherwood Forest
Heroes
The Football Game
The First Christmas Song
Christmas Hymn

w. p. 66.
Old English
Old English
DeKoven
DeKoven
v. i. p. 65.
l. p. 96.
Shelley.

Winter Term

Snowflakes
Winter Lullaby
Oh! Charlie Is My Darling
The School Cadets

Cowen
DeKoven
w. p. 30.
v. ii. p. 68.
SIXTH GRADE

SPRING TERM

Hark, Hark, the Lark          Schubert
Spring Time                   Becker
May Time                      w. 11. p. 30.
The Merry Rain                g. p. 82.
June Roses                    j. p. 91.
Little O Dear                 i. p. 17.
Japanese Lullaby              i. p. 92.

XI. PENMANSHIP

Continue formal work in penmanship with greater emphasis on movement work. The sixth grade should bring children to such facility with pen and ink that many will find it unnecessary to continue the drill in the grammar grades.

XII. PHYSICAL TRAINING

In the sixth and seventh grades the boys and girls are separated for gymnastic instruction. The boys' class periods are arranged as follows: One 30-minute period a week for swimming; one period a week for formal gymnastics with some sort of apparatus work and some short running game; and one class period a week for indoor baseball, basketball, or some game developing the element of co-operation. In the spring months much of the work is carried on out-of-doors. Much attention is given to corrective gymnastics.

APPARATUS WORK:

Ropes.
  Climbing.
  Swinging.
  Exercises taken from hanging position, as arm or leg flexions and extensions.

Rings.
  With the exception of climbing, the same exercises as taken on ropes may be taken on rings. "Turning the Crab" and "Flying Angel" may be added, also exercises standing in the rings, as foot separations, arm extensions, and flexions with the hand.
  Grasping the rope.

Ladder.
  Hanging by hands.
  From hanging position leg raising and lowering leg flexions and extensions may be taken.
  Traveling on rounds and sides of ladder.

Balance boards.
  Walking in pairs, hands clasped.
  Walking alone.
  Walking with touch steps.
Walking sideward.
Walking forward with arms in various positions.

Horse.
Front leaning rest.
Knee front rest.
Place knee and foot on horse.
Flank vault.
Squat vault.

Jumping with jump standards.
Closed jump over rope from stand.
Jump from one foot with a run.
Jump and take $\frac{1}{4}$ and $\frac{1}{2}$ turn before landing.
Emphasize the swinging of the leg forward in jumping, also the landing.

Giant swing.
Running and swinging, grasping either one or two ropes and facing toward, or with the side, to the center. At this age more attention should be paid to the form in which the pupils do the exercise. Systematic squad apparatus work comes into prominence.

The girls' gymnastic work is carefully planned to meet the changes that occur at this time in their development. It is a time for rapid growth and increase in weight. Their work consists of marching, corrective free gymnastics, light apparatus, folk dances and games. They are also given instruction in swimming.

**FOLK DANCES:**
Bean Porridge Hot.
How-do-you-do?
Bleking.
Brownie Polka.
Dancing Topsy.
Norwegian Mountain March.
Eloise Gavotte.
Highland Schottische.

**GAMES:**
Three deep.
Dodge ball.
Dog and rabbit.
Stand ball.
Basket ball.
Running relay races.
Grade VII

I. HISTORY

In the seventh grade the formal study of United States History is begun. The background brought to this grade from the work of the preceding grade makes this study of entirely different moment than is the case when children approach the study of United States History with no knowledge of world history. The children entering the seventh grade have seen the Roman Empire rise and fall, they have marked the growth of the nations of Europe, have traced their great leaders through the Crusades, and have pictured scenes in the Dark Ages and the Renaissance. They have seen the rise of the desire for further knowledge of the earth, its people and products, which finally resulted in the discovery of America. The topics for the seventh grade are suggestive to the teacher rather than arbitrary.

FALL TERM

PERIOD OF DISCOVERY AND EXPLORATION (Review work of fourth and sixth grade extended):

- Voyages to the New World.
  - The Norsemen.
  - Columbus.
  - The Cabots.
  - Magellan.
  - Drake.

- Exploration.
  - Balboa.
  - Ponce de Leon.
  - Cortez and Pizarro.
  - Narvaez.
  - De Soto.
  - Coronado.
  - Cartier and Champlain.

COLONIZATION PERIOD:

- Physical features of country; their bearing on its history.
- Colonization of the South.
  - Motive.
  - Attempts.
  - Relation between Indian and white.
- Virginia.
  - Early life of the settlers.
  - Individual rights secured.
  - Representative government of House of Burgesses.
Tobacco culture: its relation to slavery and to slow educational and social development of the colony.

The Navigation Laws.
Berkeley and the people.
Bacon’s Rebellion.

Maryland.
Lord Baltimore and the Catholics settle.
The Liberal Charter.
Disputes about boundaries and religion.
The life of the people.

North and South Carolina and Georgia: brief reference to these colonies as the other colonies of the southern group.

The New England Colonies.
Massachusetts.
Struggle in England between king and people.
Origin of Puritan and Separatists.
Pilgrims in Holland and America.
The church and the government.
Witchcraft.
The New England township government.
New England confederacy.
Growth of schools and colleges.
Religious intolerance.
Quakers.
Loss of charter.

Connecticut.
Settled by immigrants from Massachusetts.
The first written constitution in America.
Andros and the Connecticut charter.

New Hampshire and Rhode Island: brief reference to these.

The Middle Colonies.
New Netherlands and New York.
Henry Hudson.
The Dutch claims.
The Patroons.
Friendship between Dutch and Iroquois.
The Dutch governors.
New Netherland becomes New York.
New York under English governors.

Pennsylvania.
The Quakers in England.
William Penn and the Quakers settle Pennsylvania.
Friendly relations with Indians.
Wise laws of the colony.
Prosperity and growth of Pennsylvania.

New Jersey and Delaware: brief study in relation to other colonies of the group.
SEVENTH GRADE

Winter Term

Struggle between France and England:
French exploration and colonization.
Verrazano.
Cartier.
The Huguenots.
Champlain.
The Jesuits.
La Salle and Marquette.

Early French wars (Their causes and results):
King William's War.
Queen Anne's War.
King George's War.
The French and Indian War.
Causes of the last French war.
Braddock's defeat.
Montcalm and Wolfe and the capture of Quebec.
Treaty of peace and results of the war.

Life in the Colonies and Their Growth toward Union:
Social life, industry, and trade in the various groups.
Colonial government: republican, proprietary, and royal colonies.
Value of and necessity for union.
Franklin's plan and its failure.

The Revolutionary Period:
Causes of the American Revolution.
Lack of representation in Parliament.
Oppressive laws.
Quartering of British troops upon the people.
Right of trial by jury ignored.
The Five Intolerable Acts.
Union of the Colonies.
First Continental Congress.
Boston Tea Party.
Battle of Lexington and Concord.

Great men connected with this period.
James Otis.
Samuel Adams.
Patrick Henry.
William Pitt.
Edmund Burke.
George Washington.

Spring Term

The Revolutionary Period (Continued):
The Declaration of Independence.
The Beginnings of the war.
Bunker Hill.
Washington made Commander-in-Chief.
The War for Independence.
War in the Middle States.
The French Alliance.
Arnold's treason.
Our naval victories.
Campaigns in the south.
Greene and Cornwallis.
Close of the War.

The Period of Weakness.
The country and the people.
Elements of progress.
Foreign affairs.
War of 1812.

Westward Expansion.

II. Handwork

In this grade an hour and a half per week throughout the year is devoted to shop work for the boys and sewing for the girls. In addition to these lines of manual work, the art work carries out problems in applied design in metal, pottery, and textiles. Three half-hour periods per week are assigned to the more definite instruction in art, and one hour period for craft work. The problems in the art and in the crafts work are determined in great measure by the interests of the class and the individual. During the current year this grade has undertaken the decoration of the school dining-room, and has worked out designs for curtains, table runners, etc. They have also made jardinières in brass repoussé for the plants in their own room.

Art:

Drawing and Painting—Mediums: Pencil, brush and ink, water-colors, crayons.

Representation—Plant forms, landscape, pose, animals, still life, houses, streets.

Continued drill in perspective, with the formulation of the principles.

Design—Motives from plant and animal forms applied to book covers, waste-baskets, desk sets, boxes, curtains, jardinières, and other articles for school and home use.

Decorative drawing of plant studies, landscape, and figure with landscape, in three and four tones.

Clay—More advanced work, including making of handles and designs in very low relief. Application of underglaze colors.

Metal—Repoussé and pierced jardinières, candle shades, trays, etc.

Elementary work in hammering and etching.

Picture Study—See list by grades, page 157.

Textiles:

Stenciling, etc. (in connection with art).
Sewing (girls.—three terms).
General review of stitches learned in fifth grade.
Drafting, cutting, fitting, and sewing of underwear. Care and use of the sewing-machine. The culmination of the work may be a simple waist or cotton dress for the girl's own use.
Study will be made of materials to be used, their quality, prices, and suitability, with emphasis upon economy in purchase, care in cutting, etc.
In connection with their history work the study of the development of the cotton trade in the United States is taken up.

MANUAL TRAINING (Boys,—three terms in carpenter shop):
Use of elementary carpenter tools, and care of same. Making of simple objects of wood, students making their own drawings as far as possible. Information about all the materials and tools used. Visits to woodworking industries about the city. Accurate and careful work required.

III. GEOGRAPHY

The work for the first two terms in seventh grade is a study of the general geography of North America followed by detailed study of the United States. In the spring term the work covers the British Isles, France, Scandinavia, Belgium, and Holland, our near neighbors across the Atlantic. The course is adapted from the courses in the Horace Mann School, New York City, by Dr. Dodge, and the Practice School course of the Normal at Charleston, Illinois, by George D. Hubbard.

FALL TERM

GENERAL GEOGRAPHY OF NORTH AMERICA:

Position, shape, and size.
Latitude, longitude, not closer than degrees.
Direction from other continents and oceans.
Distance from other continents.
General shape, approximate area with islands.
Position with reference to heat belts and wind belts.
Position with reference to the sunshine zones.
Compare with the other continents of these points.
Position with reference to ocean currents.
Gulf Stream drift; Kuro Shiwo; Labrador current.

Coasts.
Bays, gulfs, peninsulas, capes, islands, and archipelagoes.
Influence on climate, commerce, defense.
Compare eastern and western coasts, as to harbors, state of harbors in winter, and nearness to foreign markets.
Compare regularity of coast with that of other continents.
Continental shelf. Where wide? Where narrow?
Islands upon shelf.
Value as fishing ground.
Effects of uplift of land on size of continent and shelf.
Effects of depression of land upon size of continent and shelf.
Effects upon harbors.
Map these features discussed on outline map.

Physical features.
Eastern and western highlands. Compare as to height, area, and nature. Volcanoes, active and extinct, of western highlands.
Central lowland, extent, northern and southern divisions, with height of land between them.
Coastal lowlands—where? Extent?
Map on outline map in colors.

Drainage.
Great systems determined by primary highlands and lowlands.
Atlantic compared with Pacific drainage in extent.
Atlantic drainage direct.
   Through Hudson Bay.
   Through St. Lawrence and Great Lakes.
   Through Gulf of Mexico.
Arctic drainage area.
Pacific drainage area.
Interior drainage area.
Outline these areas on map.

Climate.
Emphasis placed upon conditions in the United States.
Winds.
Part and proportion of continent under each belt of general circulation which is represented. Effect upon winds of United States of position of summer and winter high and low pressure areas.
Effect of cyclonic storms studied from weather maps.
Temperature.
From isothermal charts for January and July determine:
   Influence of ocean in equalizing temperatures. Study graphs of monthly temperatures in a Pacific Coast and inland city of same latitude and altitude.
   Comparative range on windward and lee coasts. Graphs.
   Effects of ocean currents. Compare eastern and western sides of continent.
   Influence of relief.
      By graphs compare monthly temperatures in Denver and Springfield, Illinois.
Division into belts according to time of earliest and latest frosts.
   Relation to crops.
Length and amount of sunlight in southern and northern States compared.
Effect upon navigation.

Rainfall.
From mean annual rainfall chart, study distribution as determined by prevailing winds, proximity to large water bodies.
highlands. Find examples of places under influence of each of these three controls.

Compare mean annual rainfall and evaporation charts.

Effect of amount of evaporation upon amount of water available for crops.

Relation of rains to growing season.

By graphs show monthly distribution of rain on Pacific, Gulf, and Atlantic coasts, and in Minnesota. Reason for such distribution.

Effect upon character of crops produced.

Relation to irrigation.

Division of United States into climatic provinces on basis of above facts.

Make comparative study of following charts of the United States: relief, seasonal rainfall, seasonal temperature, vegetation, population.

Note places where relief, temperature, and rainfall control distribution of plants.

Introduce idea of these physical controls on the distribution and occupations of man.

Glaciation.

What is a glacier? Size, movement, work of.

Kinds of work.
Corrasion, or grinding up of rock.
Transportation.
Deposition.

A region over which a glacier has moved is said to be glaciated.

Work in glaciated region north of Great Lakes and Massachusetts mainly corrasion and transportation.

Work in glaciated region south of same line mainly deposition.

Note characteristics in each region.
Northern; little soil, many bare rocks, ledges, lakes, waterfalls.
Southern; abundant rich soil, relatively smooth country, few bare ledges, lakes, and waterfalls; in many places boulders. Study local topography.

Advantages and disadvantages to Canada and to United States due to glaciation.

Map on outline map region formerly glaciated and position of present glaciers.

United States in Physiographic Regions:

Introductory. Review large physiographic regions of United States as seen in study of North America.

Eastern Highlands.

Highlands of New England.
Extent and location.
Character of surface, uplands and lowlands, soils, account for.
Mountains. Effect of running water upon rocks, of unequal hardness.
Rivers; name chief, and locate.
Uses—power, why? Navigability,—effects upon location of cities. Cities whose sites were determined by presence of water-power.
Lakes; number, origin.
Uses—reservoirs, park sites, summer resorts; effects on climate.

Climate.
Controlling factors.
Extent in latitude.
Leeward position in continent.
In usual path of cyclonic storms.
Study path of several recent storms.
Characteristic weather changes produced by passage of a storm.
Influence of ocean currents.
Rainfall and snowfall.
Compare climate with that of England.
Influence upon history of early settlements.

Productions and Occupations.
Forests; extent, kinds.
Uses—lumber, paper, syrup, and sugar.
How logs go to mill. Why? Season.
Sawmills, paper and pulp mills. Study paper industry of Kalamazoo.
Locate and account for location of Bangor, Lewiston, Augusta, Portland, Burlington, Holyoke. In what state is each?

Agriculture, on slopes and lowlands.
Grazing and dairying, truck farming, orcharding.
Why is each followed?

Granite. Where? Amount?
Quarries and stone-cutting works. Study stereographs.
Cities. Locate each. In what state?
What geographic advantage has each?
Quincy, Concord, Barre, Gloucester.

Marble. Quarries and polishing works.
Rutland.

Slate. Many places in moderate amount.

Fishing. Where? Significance of some place names.
Kinds of fish? Difficulties in catching.
Cities—Gloucester, Portland, Boston.
Name of city and state should always be associated, and loca-
tion accounted for so far as determined by direct geographic control.

Manufactures.
  Why in New England to such an extent?
  Power; markets; raw materials, sources of.
  Cause of rise after Revolution.
  Effect of Embargo Act and War of 1812.
  Effect of present development in South.

Kinds:
  Cotton, wool; extent of business for each.
  Cities—Fall River, Lowell, Lawrence, Lewiston, Providence, Woonsocket, Manchester, New Bedford. Located as above.

Leather.
  Goods made of leather.
  Cities—Lynn, Brockton, Haverhill.
  Sources of materials, markets.

Metal goods.
  What classes of goods? Why?
  Why not armor plate, railroad iron, etc.?
  Located as above.

Other cities:
  Hartford—Insurance.
  Cambridge—Harvard University.
  New Haven—Yale University.
  Charlestown—Navy Yards.

Commerce.
  Conditions unfavorable to river commerce.
  Advantages for ocean commerce. Importance of Long Island Sound.

Railroads.
  Cause of demand for railroads.
  Effect of topography upon routes.
  Importance of Hoosac Tunnel.

Seaports and commercial centers.
  Boston.
  Advantages of location. Map of vicinity.
  Raw materials coming through port of Boston, what? why?
  Finished products distributed from here.
  Effect of surrounding manufacturing regions on its commerce and business.
  Mention, locate, and compare with Boston or with each other, the following: Portsmouth, Burlington, Portland, Providence.
  Summer resorts: Berkshire Hills, Lake Champlain, Mt. Washington.
Many secluded valleys, lakes, or mountains.
Beach cities.
Map these cities, rivers, and other places mentioned.

Adirondacks.
Location, character of surface, lakes, rivers, falls, forests, animals.
Compare in these respects with New England.
Uses—pleasure resorts. Why so well patronized?
Hunting and fishing preserves.
Lumbering: Watertown.
Note and explain absence of towns and railroads in this region.
Read Bryant's "Forest Hymn."

Appalachians.
Formation of longitudinal ridges by action of running water on rocks of unequal hardness.
States included or partly included in this area.
Surface, character of.
Hilly belt in eastern portion.
Ridge and valley belt in western.
Study surface of region as influencing climate, distribution of people, occupations, and products of the soil, crops, and animals, accounting for each as far as possible.

Drainage.
Rivers—relation to ridges and valleys.
Water gaps, wind gaps—formation.
Influence on development of region.
Influence on commerce by water.
Influence on commerce by rail.
Influence on development of states farther west.

Mineral wealth.
What? Where?
Anthracite, iron, limestone, other building stone.
Influence upon development of these parts of country.
Cities studied primarily in connection with certain industries; locate and as far as possible account for location on geographic basis. Gather all together concerning each city.
Coal and iron cities, locate by states.
Scranton, Bethlehem, Reading, Birmingham, Wilkesbarre, Harrisburg, Philadelphia.
Lumber markets.
Williamsport, Pa.
Scenic centers.
Saratoga Springs, Chattanooga.
Commercial centers.
New York City.
Harbor: Appalachian barrier to interior.
Hudson River, Erie Canal, climate, industries, population, size, docks, wharves, railroads.
Locate on outline map all places studied.

Allegheny Plateau.
Location, extent, boundaries by regions.
States or parts of states included.
Surface, characteristics, soils.
Part glaciated, part not glaciated.
Northern or glaciated portion, where?
Agricultural products. What? Why?
Grapes and other fruits; Finger lakes and Mohawk Valley.
Garden products near cities.
Dairy products, near cities.
Mineral products. What? Where?
Salt—Syracuse.
Coal, bituminous, and iron—Pittsburg and Allegheny, Erie, Buffalo.
Study stereographs on coal and iron.
Coke, charcoal—Connellsville.
Oil and gas—Oil City.
Fishing—Hudson River and lakes.
Manufacturing and other cities—Albany, Troy, Rochester, Brooklyn.

Southern or unglaciated portion.
Agriculture.
Tobacco—recall cities, etc., learned in earlier work.
Other crops.
Lumber, hardwoods.
Extent of forests.
Markets: Nashville, Memphis, Knoxville.
Grazing and stock raising.
Horses. Bluegrass region.
Cattle and sheep on grassed hills.
Hogs in forests.
Markets—Louisville, Cincinnati.

Locate on outline map all places studied.

Winter Term

Coastal lowlands.

Atlantic Coastal plain.
Location. Extent. States wholly or partly included.
Character of surface of plain.
Drainage. Plan of streams in plain.
Plan of those from Appalachians that cross plain.
Falls in most of them that flow from Appalachians across coastal plain. Why?
Influence of fall line on cities. Why?
What prominent cities on fall line?

Shorelines.
Drowned valleys. Cause. Contrast with effects of rising shores.
Advantages and disadvantages of above.

Climate.
Study and compare northern and southern parts, as to temperature, rainfall, prevailing winds, summer and winter.

Productions. Locate. Note relations to slopes, soil, water, climate and markets.

Agricultural.
Tobacco, cotton, rice, oranges, and other fruits.
Truck farming.

Mineral.
Clays, sands, stone, phosphates.

Forestry.
Lumber, resin, tar, turpentine.

Fishery.
Oysters, blue fish, mackerel, sponges.

Manufacturing.
Kinds determined by needs more than by native products.
Sugar refining—Brooklyn.
Silk goods—Paterson.
Iron goods—Baltimore.
Ships—Norfolk.
Pottery—Trenton.
Study each city thoroughly as a center of this industry. Bring together materials learned earlier in the course.

Commerce, factors in; development of.
Influence of coast, rivers, producing regions, manufacturing cities, ocean, and foreign markets.
Influence of topography on local and interior trade.
Cities—Philadelphia, Wilmington, Del., Washington, Annapolis, Newport, Jacksonville, St. Augustine, Charleston, S. C., Savannah. Locate and learn why noted.

Locate on outline map the places studied above.

Gulf Coastal Plain.
Study essentially as in case of Atlantic Coastal Plain.
Cities—Pensacola, Tampa, Mobile, Vicksburg, New Orleans, Galveston, Beaumont, Little Rock, Natchez, Baton Rouge, Shreveport, Houston, Dallas, Oklahoma, Guthrie.
Indian Territory and Indian Reservations. Locate on outline map as before.

Central lowlands.

Prairies.

Study essentially as in case of Atlantic Coastal Plain, as to location, extent, character of surface, soils, drainage (special study of Mississippi River), climate, products.

Commerce, needs of; development of.

Factors in development of:
- Rivers, lakes, and canals (Ill. and Mich., Erie, and others);
- products; markets in the east; need of manufactured articles from the East and from abroad; local trade; level country adapted to railroads; great development of railroads. Locate the leading lines of railroad.

Cities. Locate. Name of city and its state should always be associated. Account for the development and importance of each city so far as determined by geographic conditions.

Many of these cities will have been introduced under some product: Cleveland, Columbus, Toledo, Akron, Findlay, Detroit, Lansing, Port Huron, Grand Rapids, Ann Arbor, Fort Wayne, Indianapolis, Chicago, Terre Haute, South Bend, Peoria, St. Louis, East St. Louis, Rockford, Springfield, Milwaukee, St. Paul, Omaha, Minneapolis, Dubuque, Kansas City, Davenport, Cairo, Fargo, Council Bluffs, Saginaw, Bay City.

Group cities as lake ports, river ports, grain and stock markets, manufacturing cities, etc. Why so many grain markets? Why so many cities making farm machinery? Use other similar questions tending to unify the work, or introduce comparisons. Make a more extensive and detailed study of Chicago as a modern American city.

Special study of Chicago.

Location.
- State part of state, lake, and river.
- Railroads (I. C. R. R. and many others), canal.

Size and population; nationalities?
- Let succeeding topics answer.

Commercial center.

Factors given under position that help to account for the fact of commercial importance.

- Trace water connections with ocean.

New factors.

Relation to the East, to the South, to the North.
- To the grain and stock lands near by.
- Products to and from each section.

Made factors.

- Railroads, canal, clearing house, banks, custom
houses, elevators, harbors, docks, and wharves, depots, freight houses.
Notice great number of men needed to operate.

Manufacturing center.
Why? Local needs, and markets near by.
Much raw material going through which can be made up.
Coal near. Distant markets easily reached.
Hundreds of men needed.
Kinds of manufacturing done.
Meat packing, etc., iron mills, farm machinery and other kinds, furniture, cars, clothing. Note all geographic factors which minister to these industries.

Educational center.
Number of universities and colleges. Name.
Other schools, pupils and teachers, buildings.
A few figures.
Museums and collections, libraries.

Public buildings, etc.
Office buildings; churches, hotels, theaters; post-office; parks; streets; boulevards.

Other things about Chicago.
Water works; drainage canal; street-cars and elevated railroads. Newspapers. Large retail and wholesale houses.
Government; police; fire department.Relation and importance to state.

Compare downtown life and activities with life of residence portions. Note several residence portions and compare. Make the mental picture of "city" as clear as possible.

Lake Superior Highlands.
Approximate size of region. What and where?
Nature of surface.
Vegetation.
Account for forests, and the lumber industry.
Note its cities, trade routes, and markets.
Relation of this industry to the industries of the prairies.

Minerals—iron and copper.
Study these, especially the iron, as to their relation to the development of the industries of the prairies and Allegheny Plateau.

Cities of Lake Superior region: Duluth, Superior, Ishpeming, Marquette, Calumet.
Transportation to the factories of Chicago, Grand Rapids, Pittsburgh, Erie, Saginaw and Bay City.
Influence of the "Soo" canals.
Why is the iron ore not smelted and manufactured in the mining region?
Ozark Highlands.
Where? What states?
Nature of surface; soils.
Occupations.
Agriculture (grazing), lumbering, mining.
Products.
Stock, lumber, iron, zinc and lead.
Influence on industries in nearby states.
City—Joplin, Mo.

Western Highlands.

Great Plains.
Location; extent. States partly or wholly included.
Relation to prairies and to Rocky Mountains.
Surface. Topographic features; soils.
Drainage. Chief streams, character of.
Climate. Careful study of, as furnishing explanation for character of streams, crops, etc.
Industries of plains as related to their relief and the climate.
Irrigation. Why? Methods and results.
Cities of plains: Great Falls, Mont.; Cheyenne, Wyo.; Denver and Pueblo, Colo.
Transportation.
Why so little river traffic? Influence on development of country.
Great railroad lines crossing plains: Northern Pacific, Union and Central Pacific, Great Northern, Southern Pacific, Santa Fé.
How did people travel before the day of railroads?
Locate places as usual on outline maps.

Rocky Mountains.
Location; extent. Correlate with those in Canada.
States included in the area.
Relation to Cordilleras and rest of western highland.
Character of mountains—ridges, peaks, chains, passes, and parks.
Relation to continental divide.
General altitude. Altitude of special peaks.
Effects of mountains on their own climate and on that of plains to east.
Vegetation of the Rocky Mountains in various parts, and at various altitudes.
Scenery of Rockies.
Yellowstone Park. Special study of geysers and hot springs.
Cause. Mineral deposits made by underground water.
Pike's Peak and others.
Trace the great railroads mentioned above through the mountains, noting the control exerted by relief, valleys, and passes upon them.
Occupations and products.
  Mining—gold, silver, lead.
  Locate chief regions.
  Does iron occur? Why is it not worked?
Hunting and trapping. Why?
Cities and their characteristics: Butte, Montana; Cripple Creek, Leadville, Pueblo, Denver, Colo.; Santa Fe, New Mexico.

Columbia Plateau.
  Location; extent. States included.
  Origin; products of vulcanism; character; soils.
  Climate.
  Rivers.
  Occupations—grazing, wheat growing.
  Cities—Spokane.
  Possibilities for development in plateau.

Colorado Plateau.
  Location; extent. States included.
  Surface; relief, origin of.
  Climate; causes, effects of altitude.
  Vegetation.
  Special study of Colorado River and Canyon. Compare with Mississippi.
  Occupations and industries.
  People, with brief study of the Indian customs.
  Cities—Phoenix, Yuma.

Basin Ranges and Valleys.
  Study essentially as for Colorado Plateau.
  Under climate note recent changes of climate, and history of Great Salt Lake thus involved.
  Cities: Salt Lake City, Ogden, Carson City.
  Mormons; characteristics.
  Influence on development of the region.

Pacific Ranges and Valleys.
  Extent and states involved.
  Mountain ranges: Sierra Nevada, Cascade, Coast Ranges.
  Valleys: California Valley and Puget Sound Valley.
  Relief; altitude of peaks; topographic effects of vulcanism as illustrated by Mt. Shasta, Mt. Hood, Mt. Ranier.
  Climate, influence on climate of plateaus.
  Seasons—rainy and dry, summer and winter.
  Compare northern and southern parts.
  Explain on basis of general circulation and migration of wind belts.
  Compare with Atlantic Coast and explain differences.
  Drainage.
  Rivers; relation to trend of mountains.
  Recall coast line and coast of eastern U. S. and compare.
Importance of the inlets, San Francisco Bay and Puget Sound, on climate, commerce, and general development of country.

Industries and products.
- Mining. Locate centers.
- Lumbering. Locate centers. Big trees.
- Fishing. Locate centers.
- Hunting. Locate centers.

Transportation.
- Commerce of ocean. Exports and imports.

Railroad connections. Continue tracing the lines across to coastal cities.


On outline map locate all places mentioned.

Review by calling for topographic and climatic characteristics of states and their products and cities, their location, comparative size, and importance as producers to the nation. Compare states, physiographic regions, and cities. Have in mind unity and diversity of the nations and the interdependence of its parts. Review transportation routes with products and cities, noting whether the products go, how and why.

**SPRING TERM**

(Adapted from Elementary School Curriculum, Teachers' College)

**BRITISH ISLES, FRANCE, SCANDINAVIA, BELGIUM, HOLLAND:**

**AIM**—To determine factors which have contributed to making the British Isles a commercial and colonial power. Make clear what is included under each of following terms: England, Great Britain, United Kingdom, British Isles, British Empire.

**Position.**
- In reference to rest of Europe.
- Distance from mainland.
- Brief account of geological separation of Great Britain from continent.
- In land hemisphere.
- In reference to surrounding waters.
- In relation to leading commercial and travel routes of world.

**Advantages of position.**
- Results of attempted foreign invasions.
- In latitude.
  - Compare with New England.
- In longitude.
  - Time difference between London and Kalamazoo.

**Size.**
- Compare with New England States, Michigan, United States.
Coastline,
  Cause of irregularity.
  Important indentations and projections.
  Harbors,—number, importance.
  Chief bordering straits, seas, islands.
Physical features—brief, simple treatment.
  Distribution of highlands and lowlands.
  Height and ruggedness of highlands.
  Influence of Scottish lowland in history.
  Effects of glaciation.
    Compare with England.
  Effect of topography upon occupations, distribution and character of people.
  Relation of drainage to relief.

Climate.
  Deduce climatic features from position in latitude, with reference to
    ocean currents, prevailing winds, character of coast line, and
    surface features.
  Extend study to climatic conditions in all northwest Europe.
  Study climate of British Isles as type of oceanic climate.
  Compare eastern and western coasts with coastal regions of same
    latitude in North America as to temperature range and seasonal
    distribution of rainfall.
  Cause and effect of fogs.
  Influence of the climate upon human and plant life.

Occupations and products.
  Causes contributing to location and development of each industry.

Trade and transportation.
  Review position in relation to trade routes of the world. Importance
    of Suez Canal in English trade.
  Compare railroad and surface maps.
  Rivers as commercial routes.
    Study Manchester Ship Canal.
      Cause of construction.
      Effect upon Liverpool and Manchester.
    Trade with United States on canal.
      Compare in importance with other great canals.
  Chief articles of trade with United States.

Cities.
  London.
    Detailed study of reasons which led to its being "world's port
      of exchange."
    Compare trade with that of New York.
  Life.
  Manchester, Sheffield, Birmingham, Leeds, Glasgow, Dublin, Belfast.
  Queenstown.
Rural life in the British Isles.
Size of farms. Why.
Tenant farming.

Places of interest.
Westminster Abbey, Oxford, Cambridge, Cathedrals, Stratford-on-
Avon, Lake regions, Fingal's Cave, Giant's Causeway.

Army and Navy.
Necessity for large force.
Compare with that of the United States.

Government.
Town.
Power of ruler contrasted with that of President of United States.

Colonial possessions.
Name and locate chief ones.
Value Great Britain of her colonies.

At close of study have an "English day," on which customs, songs, occupations, products, and scenery are illustrated.

Treat other countries of Europe in similar way. Each country should be studied from a special view-point; for instance, the aim of the study of Belgium and Germany should be to account for their industrial preeminence; in the study of Russia, to trace effect of government and national characteristics upon development of resources; in France and Switzerland, to study the reasons for art manufacturing.

IV. NATURE STUDY

FALL TERM

FORESTRY—The topics for the study of forestry are taken chiefly from Bulletin 24, Division of Forestry, U. S. Department of Agriculture, "Primer of Forestry, Part II," which should be in the hands of the teacher and pupils. The plates in this are invaluable. The teacher should remember that of greater significance to the children, however, are: excursions to the woods; collections of material, such as cross-sections of trunk of tree to show rings of growth, cracks in bark through which transpiration takes place; simple experiments to show transpiration, etc. Books should be kept in which pupils may keep mounted leaves, twigs, etc., pictures to illustrate points made, and written accounts of the lesson. The camera should be made use of on excursions to the woods, and pictures illustrating points observed should be included in the collection.

Continued study of trees.
Watch changes as leaves fall.
Recognize in winter state trees already known and as many others as possible.

Study of the life of a tree.
Root system and food.
Need of sunshine and air, in using the food.
How a tree breathes.
The annual growth of a tree.
The annual rings in the wood.
Heart wood and sap wood.
Injury caused by girdling trees.

Forests.
What they are.
Requirements of trees as to
Temperature—Trees in Southern Michigan compared to
Northern, and other regions of the world.
Heat and moisture: compare willow and beech with oak and
maple.
Light: tolerant and intolerant trees. Reasons why some
seedlings can grow in shade of forest and others not.
Rate of growth.
Reproductive power of different trees.
Succession of forest trees.
Pure and mixed forests.

Life of a forest.
How trees help each other.
How they compete with each other.
Natural pruning.
End of the struggle for existence.
Death of trees.
Lumbering.
Destructive.
Conservative.

Uses of forests.
Lumber.
Soil formation.
Holding moisture.
Uses of wood,
Collections to show hardness and beauty of grain.

Enemies of the forest.
Fire.
Reckless lumbering.
Sheep grazing.
Wind.
Lesser enemies.

Algae: Fungi, Lichens, and Mosses—Specimens gathered on field trips.
Characteristics of each noted. Common varieties of mushrooms identified.

Snakes—Note their preparation for winter.
Reference: Coulter’s “Nature Study.”

Hygiene—Studied throughout the year, one-half hour per week. Book IV
of Gulick’s Hygiene series, “The Body at Work,” used as a basis. The
physiological functions of digestion, circulation, nutrition, and respiration are dwelt upon. Emphasis on how to train the body for efficiency.

Winter Term

Magnetism—The loadstone, magnetic oxid of iron, will first be studied and the property of attraction and the fact that a loadstone can communicate its power to a piece of iron made plain. Magnets will be studied as to the properties of attraction, polarity, and the direction assumed, free to move, under influence of the earth. Study of the compass. The magnetic field will be shown as a basis of some later work in electricity. The effect of blows and of heat on a magnet will be brought out. As the compass is the only instrument using a permanent magnet, considerable attention will be devoted to its uses,—surveying and navigation.

Properties of Magnets:

Attraction.
Bring the end of a magnet near some tacks, small nails, iron filings. Note how these stick to the magnet and each other.
Repeat, using bits of paper, wood, copper, glass, etc. Note selective power of magnet in attracting iron only.

Direction assumed.
Stroke a sewing needle over the end of a magnet. Tie a string in the eye of the needle; float it on a cork in water in a glass dish. Change position of needle by turning the cork, and note that it always comes back to the same direction. Establish principle of the compass.

Hold a key or knife near the floating magnet and note deflection. Move a magnet around under the needle and note same.

Question: What effect might bodies of iron ore have upon the surveyor's compass?

Polarity.
Roll a magnetized knitting needle in iron filings. Pick it up carefully. Where do the filings appear in greatest numbers?
Compare the numbers of tacks which can be picked up by the various parts of the magnet, beginning at one end and working through to the other. Deduce facts concerning polarity.

Law of poles: Determine the north and south poles of two magnetized pieces of knitting needles. Float one on a cork and hold near each end of it in succession the poles of the other. Note the effect of N.N.', S.S.', N.S.', S.N.' Deduce the law.

A magnet always consists of two poles: Determine the poles of a magnetized piece of knitting needle by floating. Break in the middle, test each piece. Break each piece again and test for poles. Question: What is true of the poles developed at the break? Are they alike or unlike?

Effect of jarring or heating on a magnet.
Float a magnet on a cork. Take another magnet and test its poles
with the floating one. Hammer the second magnet gently and then compare. Does number 2 gain or lose strength?
Perform the same experiment applying heat to the second magnet. Is its magnetism strengthened or weakened?
Stroke a tube of iron filings with a magnet. Test its poles as above. Jar the tube and test again. Effect?

Methods of imparting magnetism: (1) Conduction—actual contact; (2) Induction—no contact.

Hold a knitting needle whose ends have already been tested for poles with one end near a magnet but not touching it. Test the opposite end for polarity.

The magnetic field.
Lay a bar magnet between two thin books. Place a sheet of paper over the top book and dust iron filings evenly over the paper. Tap the paper gently and note how filings arrange themselves.
Lay two magnets as above, first with N. and S. near each other but not touching, and then with N. and N., and see how the filings arrange themselves. Establish the magnetic field. This property of the magnet is especially valuable in the case of dynamos and motors.

Current Electricity:
The Simple Cell—The simple cell consists of two solid plates immersed in an electrolyte and connected outside by a wire. The place must be of different material so that one will be more affected by the electrolyte than the other. The plates most commonly used are zinc and copper or zinc and carbon, and the electrolyte is commonly dilute sulphuric acid. The zinc is always the plate most acted upon. The current is said to flow outside from carbon or copper to zinc and vice versa inside. Carbon plate is commonly called "plus," and the zinc "minus."

Experiments:
Make a dilute solution of sulphuric acid, one part acid to 12 of water. Pour the acid into the water (never the water into the acid). In this immerse a strip of zinc and note action. Repeat, using a strip of amalgamated zinc. Repeat, using strip of copper. Note carefully what happens each time.
Place strips of copper and amalgamated zinc together in the cell. Touch the tops of the plates together or join them with a wire. Note effect. (The bubbles given off by hydrogen.)
The effects of the current.
Heating and lighting.
Twist a piece of fine wire into the circuit of the battery and note how hot it gets.
Applications:

The carbon filament of the incandescent lamp.
Electric heaters, hair curlers, etc.
The arc light and electric burners,—explain breaking circuit and interposing air gap. High temperature of electric furnace.

Electric heating of houses.

Chemical or electrolytic:

Pass a current through a solution of copper sulphate and note collection of copper on one electrode. On which one does it collect? Reverse the current and see what happens. Does the copper always collect on the same electrode? Plus or minus? Explain process of electric plating. Visit local establishments.

Explain use in the refining of copper, the manufacture of aluminum, and the making of soda and bleaching powder.

Repeat the experiment, using a solution of silver of lead nitrate.

Magnetic—Study the electro-magnet, its importance in telegraph instrument, telephone, dynamo, and electric motor. Simple experimental apparatus constructed.

Hygiene—Continue the work begun in the fall term.

BIOLOGICAL NATURE STUDY:

Plant societies.

Birds,—economic value to man in relation to crops and in relation to insects. Study such birds as crow, blackbird, robin, etc.,—their life histories.

Gardening,—seed selection. Germination tests, corn breeding and pollination.

Hygiene,—continued.

V. AND VI. LITERATURE AND READING

Courtship of Miles Standish—Longfellow.
Evangeline—Longfellow.
Rip Van Winkle—Irving.
Legend of Sleepy Hollow—Irving.
Christmas Carol—Dickens.
Herve Riel—Browning.
Snowbound—Whittier.
Captains Courageous—Kipling.
Tales from Shakespeare—Lamb.

Birds and Bees and Sharp Eyes—Burroughs.
Address before Virginia Delegates—Patrick Henry.
Concord Hymn—Emerson.
Warren's Address.
Old Ironsides.
Selected Short Poems.
VII. LANGUAGE

The study of formal grammar is begun in this grade. The text used is Buehler’s “Modern English Grammar,” Part I. The work in composition is allowed half the time, and the correction of the written work gives opportunity for the application of the principles of sentence structure learned in the formal grammar period. Composition work involves practical business forms in letter writing, telegrams, invitations, acceptances and regrets, etc. The practical work of the school affords much opportunity for composition work, oral and written.

VIII. SPELLING

The text used is Reed’s “Word Lessons.” The work will consist of oral and written spelling, of lists of words in the various subjects pursued in school and from the current magazine articles as well as the spelling book. Work in synonyms and with prefixes and suffixes, such as found in the text, in Part IV. The aim will be to stimulate interest in the pupils so that many may be excused from formal spelling exercises because of perfect spelling in all written work. The use of the dictionary and care in written work is thus fostered.

IX. MATHEMATICS

The text used is Myer’s Arithmetic, Book III, pages 1 to 148 inclusive. This is supplemented by others.—Young and Jackson’s, Smith’s Grammar School Arithmetic, Milne’s Arithmetic, Book III, Southworth and Stone, etc. The division by terms is as follows:

FALL TERM—Review of common and decimal fractions.
WINTER TERM—Percentage and interest; simple business forms.
SPRING TERM—Denominate numbers; measurements; ratio and proportion.

The work in arithmetic is not confined to the arithmetic period. Many problems arise in manual training, gardening, etc., which involve all of the above topics, and the work is shared equally by the arithmetic period and the special subjects.

X. MUSIC. General Outline for the Year

SING—Those appealing to the child from the art and recreative side still have a large place, although the harmonic element is now felt decidedly.
RHYTHM—The desire to express rhythmic feeling is now largely satisfied in folk dances. (See Physical Training.) Boys of this grade are allowed use of clappers in connection with music of strongly rhythmic properties. Use of toy instruments in Kindergarten Symphony by Gurlitt.
ORIGINAL EXPRESSION—Scansion of verses and original settings for same.
EAR TRAINING—Continuance of recognition of intervals and phrases.

Four-part chording.

VOICE CULTURE—Placing exercises given with “m” and “n.” Slight use of exercises of descending character with “ah” and “oh” and considerable use of “no,” “lo,” and “yaw.”
SEVENTH GRADE

READING—Sight-reading of two- and three-part songs and exercises, putting the parts together at first singing. Individual singing continued. Frequent review of simpler exercises to encourage a feeling of power.

WRITING—Frequent practice in short periods. Used in connection with ear training and original composition.

SONGS:

For explanation of table reference see page 152

FALL TERM

The Lorelei w. p. 76.
Annie Laurie Brewer Coll.
Charity v. V. p. 48.
The First Christmas Song 1. p. 96.

WINTER TERM

Snowflakes Cowen
Winter Lullaby DeKoven
Winter and Summer g. p. 46.
The Pilgrim's Chorus (melody) Tannhauser
Largo Handel

SPRING TERM

Hark, Hark, the Lark Schubert
Welcome, Pretty Primrose Pinsute
The Sweet Scotch Rose Jennings
A Japanese Love Song Clayton Johns
Part songs found in Music Reader and in supplementary codas, etc.

XI. PENMANSHIP

The aim of the work in the seventh and eighth grades in penmanship is to secure legible form and sufficient speed for practical work. The emphasis is placed upon movement. As yet no “system” of writing has been introduced. The form throughout the grades is the natural slant.

XII. PHYSICAL TRAINING (See outline for Grade VI)
Grade VIII

The work for the eighth grade has never been accomplished by a class in the Training School, owing to the fact that the school has worked in public school grades and controlled only the first six grades. This year (1909-10) there has been a seventh grade class, and next year this class will become eighth grade. The eighth grade will therefore have as a background for their work that outlined in previous grades, and it is possible to project large topics, and in some cases, as geography, greater detail. In the main, however, the eighth-grade course is a suggestive course only, tentative, and will be revised and expanded with use.

I. HISTORY

The seventh grade will leave the study of United States History at the beginning of the Civil War. The eighth-grade work will cover topics as follows:

FALL TERM

The Civil War, causes and events succeeding. The study of the Civil War itself should be very brief, concerned with men, not with battles.

WINTER TERM

The Reconstruction Period, and great topics in the growth of our country and its institutions down to the present day. Such topics as the growth of slavery and present conditions in the South, the change in labor conditions which have brought about the factory system, etc., will be taken up here. Emphasis will be upon the social history of our country.

SPRING TERM

The study of civics, local, state, and national. Special stress will be placed upon the study of Kalamazoo and the responsibility of its citizens toward municipal affairs.

II. HANDWORK

The same amount of time is given to manual training in this grade as in the seventh, cooking taking the place of sewing for the girls. The children will be permitted to elect their problems for the hour per week devoted to crafts work. During the year more advanced problems than those in preceding grades in pottery, metal, and bookbinding will be undertaken, which, with printing, photography, or sewing, may be elected by the pupils. The hour given to this work will be the 3:15 period, this not interfering with regular class periods, and student teachers who have special aptitude in any line being then available for the work. Each pupil in the grade will be required to elect one line of work and carry it through.
EIGHTH GRADE

ART—Mediums: Same as in seventh grade.

Drawing and Painting:

*Representation*—Same as in seventh grade, with special emphasis on composition within an enclosing space. Continued drill in perspective through the drawing of chairs, tables, corner of the room, houses, streets, roads, etc. Review of principles of perspective.

*Design*—Applied to the special crafts work elected by the children. A study of home decoration, color and design suited to rugs, carpets, wall-paper, dishes, etc. This work is closely related to the manual training and crafts work.

Picture Study—See list by grades, pages 157-158.

The technique of this grade holds little that is new. The effort is to fix the points already made in the preceding grades, and establish firmly the child’s independence in his hold on real art values.

DOMESTIC SCIENCE (Girls, three terms):

A practical course in cooking, with home interests as the incentive for work. Emphasis is placed upon the scientific development of the recipe and acquiring skill in manipulation. The recipes selected are those depending on the characteristic behavior of starches and proteins, or a combination of the two, in presence of moisture and heat. Cereals, cream sauce, cream soups, croquettes, patties, desserts, custards, ice-cream, salad dressings, popovers, muffins, cake, etc., are chosen; their recipes developed through experiment.

Care of the dining-room, setting the table, and the serving of a simple luncheon will be an important feature.

Some simple problems in laundry work will be undertaken; also the care of the school bedroom,—making the bed, airing and dusting the room. Discussion of problems of home sanitation and home economics.

WOODWORK (Boys, three terms of shop work):

More advanced work with carpenter tools and more difficult tools. Making of simple pieces of furniture, finishing and polishing same. Information as to all the material used. Visits to woodworking industries. Accurate and careful work required.

III. GEOGRAPHY

FALL TERM

(Review surface and climatic conditions in northwest Europe. See seventh-grade outline on British Isles.)

MEDITERRANEAN COUNTRIES:

Compare climatic conditions with those of Southern California, South Australia, and the middle west coast of South America.
RUSSIA, AUSTRIA, HUNGARY.

Review of Europe as a Whole.

Divide continent into climatic and physiographic provinces. Note life conditions in each.

Winter Term

Asia:

By means of frequent comparisons, review chief features of other continents.

Position, form, size (see outline on North America).

Climate.

Study isothermal maps and deduce causes for great extremes in interior. Compare with North America.

Effect of position and extent of highlands and low pressure areas upon winds.

Make a careful study of monsoon winds. Compare with other monsoon regions of world.

Relation of prevailing winds to highlands. Compare with North America and Australia.

Relation of rainfall to prevailing and seasonal winds.

Compare regions of greatest and least rainfall with similar regions in North America and Africa as to extent and amount of precipitation.

Contrast influence of topography upon rainfall with influence in Africa and Australia.

Relief.

Great Central Highlands.

Trend, altitude, breadth, chief range and peak.

Influence upon rivers, upon climate of central and south Asia, upon distribution of races, plants, and animals, upon commerce.

Northern Lowland.

Elevation, character and extent of surface.

Climate.

Influence upon ancient and modern trade routes.

Vegetation and animal life.

Plain of China.

Formation. Contrast with other great delta plains of the world.

Life.

Drainage.

Principal rivers—compared in length, position, and importance with rivers of North and South America.

Commercial influence.

Inland seas.

Characteristics.

Influence commercially.

Compare with Great Lakes of North America.
Make comparative study of climatic, physiographic, and population maps.

Make detailed study of Chinese and Japanese Empires, and British India, according to outline suggested for British Isles.

Give special attention to
- Racial characteristics of people of Asia.
- Importance of struggle for possession of Asia by Russia and Great Britain.
- Trans-Siberian Railroad.
  - Route.
  - History of construction and obtaining of right-of-way.
  - Effect upon immigration.
  - Importance in commerce, development of agriculture, war.
- Significance in Eastern politics and commerce of the awakening of China.
- Study of the "Yellow Peril."
- Immigration laws of the United States with reference to Asiatics
  - Cause. Significance.
- Learn location of Arabia, Persia, Turkey, Afghanistan, Siam, Korea
- Location, life, and importance of Yokohama, Tokio, Osaka, Peking, Hongkong, Shanghai, Singapore, Calcutta, Madras, Bombay, Jerusalem, Manila.

**SPRING TERM**

**Detailed Study of Michigan (Six weeks):**

- History.
  - First settlement—where? when? by whom?
  - Stories of early explorers.
  - Early settlers.
    - Where from.
    - Cause of migration.
    - Life.
  - Ordinance of 1787.
  - Establishment of state boundaries.
  - Famous people and part played in history.

- Topography.
  - Characteristic features of each peninsula.
  - Influence upon drainage.
  - Glaciation. Effects.

- Climate. (See previous outlines.)
  - Study influence of Great Lakes by contrasting conditions in eastern Wisconsin, western and eastern lower peninsula.

- Scenic centers.
- Industries and products.
- Agriculture.
  - Importance.
Regions in which carried on and reason for particular products raised.
Special study of fruit, sugar beets, chicory, ginseng, peppermint.

Lumbering.
Past and present status.
Conditions favoring lumbering.
Location of pine and hardwood belts.

Mining.
Iron and copper.
Chief mines.
Where smelted. Why?
Shipping ports.
Receiving centers.
Value of products.

Coal.
Kind.
Where obtained.
Effect of presence of coal mines upon development of region.

Other rocks and minerals.

Fishing.
Value of fish.
How caught and marketed.
Purpose of fish hatcheries.

Manufacturing.
Salt.
Origin of beds.
Location of producing regions.
Relation of production to other forms of manufacturing.
Leading manufactures.
Quantity and value of the goods.
Chief cities.

Cities.
Location and reason for importance of Detroit, Grand Rapids, Saginaw, Lansing, Jackson, Bay City, Kalamazoo, Battle Creek, Ann Arbor, Muskegon, Ludington, Calumet, Houghton, Sault Ste. Marie, Marquette, Ishpeming, Menominee, Escanaba.
Seats of chief public institutions.

Commerce.
Great Lakes.
Amount and value of lake commerce.
Principal products produced each day.
Lake ports.

Rivers.
Government work in maintaining navigation.

Railroads.
Learn termini, direction, and leading towns of chief railroad lines.
COMMERCIAL GEOGRAPHY (Six weeks):

Purpose—Review of geographic principles and facts.
Make United States the center of study.
Geographic conditions which control commerce.
Apply to United States and countries with which United States trades.
Work of the government in aid of commerce.
Treat in detail a few topics, as coal, forest products, wheat, sugar, cotton, noting
Geographic factors involved in their production and distribution (taught largely by use of graphs and maps); areas of production and consumption; routes of trade from and to United States.
By aid of museum specimens, study commodity in its stages of manufacture.
Excursions to factories of Kalamazoo to determine
Source of raw materials.
Destination of products.
Routes to and from factory.

IV. NATURE STUDY

Fall Term

BIOLOGICAL NATURE STUDY:
Composite family recognized and studied.
Processes of manufacturing beet sugar, starch, etc.
Hygiene: Book V of Gulick series, "Control of Mind and Body." This study is continued throughout the year.

Winter Term

MACHINES—Simple conceptions of energy and work. Simple machines, such as the lever, the wheel and axle, pulley, inclined plane. The various uses of these machines will be studied and their advantages and disadvantages made clear. Simple mathematical problems involving the laws of these machines. Construction of simple machines.

Hygiene—Fall work continued.

Spring Term

BIOLOGICAL NATURE STUDY:
Parts of plant, their functions and reactions.
Gardening—Commercial gardening, specializing with varieties.
Insects—Economic relation to man.
Bird Study—The warblers.
Bird calendar kept.

V. AND VI. LITERATURE AND READING

Ivanhoe—Scott.
The Talisman—Scott.
The Lady of the Lake—Scott.
Man without a Country—Hale.
Treasure Island—Stevenson.
The Gold Bug—Poe.
Merchant of Venice—Shakespeare.
Julius Caesar—Shakespeare.
Idylls of the King (Selections)—Tennyson.
The Vision of Sir Launfal—Lowell.
Gettysburg Speech—Lincoln.
Thanatopsis—Bryant.
Selected short poems for reading and memorizing.

VII. LANGUAGE

The text in this grade is Buehler’s “Modern English Grammar,” Part II. The work in formal grammar begun in the seventh grade is continued. The emphasis is upon the functional side of grammar. Composition work occupies about one-third of the class time, and out of this work grows much of the work in technical grammar. The composition work should require a review of the work carried on through the previous grades with more advanced use of description, narration, exposition, and some use of argumentation. The writing of book reviews, debates, the editing of a school paper, assembly exercises, etc., will provide motive for much practical written work. Oral language, especially speaking without notes along any line of interest, either in class or assembly, is emphasized. Picture study should be continued (see picture list). The emphasis here will be more upon the art side and the art classes assist. A study of artists and schools will be interesting here.

VIII. SPELLING

The text used is Reed’s Word Lessons. Only those children who show special lack will be required to do formal work in this subject in this grade. The others will acquire the new words needed in connection with the topics introducing their use, and will depend upon independent use of the dictionary in making perfect all written work.

IX. MATHEMATICS

A review of percentage and interest will precede the formal application of these principles to business forms. The review of measurements as applied to practical problems will follow and constitute the work in the winter term. The spring term will be devoted to a review of arithmetic with emphasis upon practical phases, including short methods.

X. MUSIC

Liberal use of selections harmonized in three, and should the voices make possible, four parts. Daily exercises in voice culture and blending exercises to harmonize voices in connection with part work. Original individual set-
tings for words provided, encouraged. Some one noted musician studied each quarter, with frequent opportunity to hear his compositions. Frequent reviews of simpler material for rapid sight reading to sustain confidence of pupils.

Unison songs of the nature of “act” songs and also of an inspirational character still used frequently.

The story of “Lohengrin” and the leading motifs of the opera will be used.

XI. PENMANSHIP

See outline for Grade VII.

XII. PHYSICAL TRAINING

Each lesson is planned keeping in view the three-fold aim of Physical Training—(1) educative, (2) recreative, and (3) hygienic. The boy and girl at this age are undergoing a process of rapid growth in muscular strength and control.

Through the formal gymnastics and games the educative end is sought. The child must respond quickly and accurately to command, and must develop the ability to cope with the requirements of the various situations which the game presents.

Formal gymnastics and certain corrective exercises are the factors by which the hygienic end is reached, which is not only the improving of general health, but the prevention of abnormal conditions common to school children.

Formal gymnastics are recreative only as they give change and in so much as they approach plays and games.

Co-operative and competitive games, as football, baseball, basket-ball, volley-ball, hockey, tennis, etc., are practically valuable, and outdoor and indoor contests between grades add much zest to the work.

Besides the formal and corrective gymnastics and games, the boys have outdoor and indoor apparatus work. They also are given instruction in swimming.

The following work is adapted to the needs of the girls: Marching, light apparatus work, formal gymnastics, and lighter forms of heavy apparatus work and games.

Rhythmic exercises and folk dancing are important factors in increasing interest as well as developing grace and freedom of movement. Swimming is also part of the training of the girls.
SONGS FOR ASSEMBLY USE

America
Autumn Song
clouds of Gray
Swanee River
Over the River
The First Thanksgiving
Jacky Frost
Christmas Night
Marching Thro' Georgia
Our Flag
When the Regiment Goes Marching By
Star-Spangled Banner
Slumber Boat
All Thro' the Night
Sweet and Low
Welcome, Sweet Spring Time
School Song, Song of the Western State Normal

good Morning to All
good Morning Song
Awake, Said the Sunshine
Morning Song
Morning Invitation
Good Night
School Is Done
Now the Day Is Over
Good Night
All Thro' the Night

MUSIC BIBLIOGRAPHY WITH KEY

a. Small Songs for Small Singers
b. Songs of the Child World, I and II
c. Songs for Little Children, I and II
d. Song Stories
e. One and Twenty Songs
f. Lilt and Lyrics
g. St. Nicholas Songs
h. Mother Goose
i. Songs by Eugene Field

Midlinger.
Gaynor.
E. Smith.
Hill.
Brown.
Riley and Gaynor.
E. Cronninshield.
DeKoven.
j. Knowlton Nature Song  
k. Earth, Sky, I and II  
l. Holiday Song  
m. Small Songs for Small Singers  
n. Finger Plays  
o. Songs and Games  
p. Merry Songs and Games  
q. Kindergarten Chimes  
r. Songs of Father Goose  
s. Nursery Rhymes  
t. Books and Rhymes and Tunes  
u. Folk Songs and Other Songs  
v. Educational, 123-145  
w. Modern Series (Primer 1, 2, 3, 3, adv., 4)  
x. Harmonic Series (1, 2, 3, 4, 5)  
y. Melodic Series (1, 2, 3, 4)  
z. Smith Series (1, 2, 3, 4)  

RHYTHM

1. Instrumental Char. Rhythms, I and II  
2. Children's Old and New Singing Games.  
3. Folk Dances
Picture Study

Animal Pictures:

Ronner—Cats.
Adam—Cats and Kittens.
Landseer—Dogs, "Dignity and Impudence."
   Distinguished Member of the Humane Society.
   Spaniels.
   Shoewing the Bay Mare.
Millet—First Steps.
   Feeding Her Birds.
   Wood Chopper.
Holmes—"Can't You Talk?"
Raphael—Madonna of Goldfinch.
LeRolle—Arrival of Shepherds.
Israels—Children Wading.
Velasquez—Prince Don Balthazar.
Van Dyck—Baby Stuart.
Murillo—Children of Shell.
Meyer Von Bremen—The Pet Bird.
   Little Brother.

Second Grade

Bonheur—Sheep.
   Cattle.
   Lions.
   Shepherd and His Flock.
Millet—Feeding Her Chickens.
   Spinner.
   Shepherdess Knitting.
   Churning.
Moes—Spinner.
Murillo—Divine Shepherd.
Titian—Madonna of Rabbit.
Van Dyck—Children of Charles I.
Dupré—The Drinking Trough.
Laugee—In the Shower.
Dagnan-Bouveret—At the Watering-Trough.
Meyer Von Bremen—Little Brother.
Gardner—Two Mothers.
Lucca della Robbia—Children Dancing.
Jacques—The Sheepfold.
Hoecker—Girl with Cat.
PICTURE STUDY

THIRD GRADE

Millet—Sower.
   Potato Planting.
   Gleaners.

Julien Dupre—Hay Making.
   Before the Storm.
   The Balloon.

Emil Adan—End of Day.
   Shortest Way Home.
   In the Field.

Bonheur—Ploughing.
   A Noble Charger.
   An Humble Servant.
   Cattle of Brittany.

Troyon—Oxen Going to Work.
   Return to Farm.

Breton—Song of the Lark.
L'Hermitte—Paying the Harvesters.
Moes—The Spinner.
Birney—The Train.
Taylor—The Village Blacksmith.
Mauve—Spring.
   Autumn.
Raphael—Madonna of Chair.
Correggio—Holy Night.
Le Rolle—Arrival of the Shepherds.

FOURTH GRADE

Boughton—Mayflower.
   Departure of Mayflower.
   Pilgrims Going to Church.
   John Alden and Priscilla.

Schreyer—Battle on the Desert.
   Kabyl.
   Outposts.

Le Rolle—Shepherds.
Murillo—St. Anthony.
Corot—An Idyl—Children Dancing.
Delaroche—Princes in the Tower.
Millet—Sheep Shearing.
   The Graftker.
Bonheur—Horse Fair.
   Return from Fair.
   A Stampede.
   Landais Peasants.
Regnault—Automedan with Horse Achilles.
FIFTH GRADE

Millet—Life and Works of.
Bonheur—Life and Works of.
Landseer—Life and Works of.
Apollo Belvidere.
Venus de Milo.
Frieze from Parthenon.
Victory of Samothrace.
Discobolus.
Hermes.
Roman Forum.
Parthenon.
Colosseum.
Guido-Reni—Aurora.
Leighton—Greek Girls Playing Ball.
Captive Andromache.
Titian—St. George and Dragon.
Raphael—St. George and Dragon.
Michael Angelo—Fates.
Thurman—Fates.
Hofman—Christ and the Doctors.
John of Bologna—Mercury.
Alma-Tadema—A Reading from Homer.

SIXTH GRADE

Fontainebleau Group of Artists compared.
Corot—Dance of Nymphs.
Lake of Ville d'Avray.
The Lake.
Landscape with Willows.
Rousseau—Sunset at Fontainebleau.
The Edge of the Forest.
Dupre (Jules)—Morning.
The Drinking-Trough.
Cattle Crossing a Bridge.
Before the Storm.
Escaped Cow.
Diaz—Forest Scenes.
Adan—End of Day.
Daubigny—Springtime.
Evening.
Lake at Corbigny.
Murillo—Divine Shepherd.
Madonna and Child.
Fruit Venders.
Hobbema—Avenue of Trees—Middleharnis.
Abbey—Holy Grail Series.
Correggio—Repose in Egypt.
    Holy Night.
Wagner—Chariot Race.
Donatello—St. George.
Vischer—King Arthur.
Scherrer—Victorious Joan of Arc.
Raphael—Sistine Madonna.
John Alexander—The Making of a Book.
Watts—Sir Galahad.
Westminster Abbey.
Notre Dame of Paris.
St. Mark’s Cathedral.
Cologne Cathedral.

SEVENTH GRADE

DUTCH ARTISTS:

Franz Hals—The Jester.
    Singing Boys.
Franz Hal and Wife.
    Banquet of Officers of St. Andrew.
Rembrandt—Portrait of Himself.
    Saskia.
    The Anatomical Lesson.
    The Burgomasters.
    Portrait of an Old Woman.
    The Night Watch.
Ruysdael—Landscapes.
Paul Potter—Cattle.
Hobbema—Landscapes.
Ronner—Kittens.
Mauve—Sheep.

FLEMISH ARTISTS:

Rubens—Portrait.
    Holy Grail.
    Madonna.
Van Dyck—Portrait.
    Children of Charles I.
    William II of Orange and Mary Stuart.
    A Man in Armor.

EIGHTH GRADE

ITALIAN ARTISTS:

Giotto—Tower and Bas Reliefs.
    Dante.
Fra Angelico—Angels.
Luca della Robbia—Singing Boys.
Dancing Boys.
Botticelli—Spring.
    Mona Lisa.
Massaccio—Frescoes in Branacci Chapel
Michael Angelo—David.
    The Three Fates.
    Holy Family.
Palma Vecchio—St. Barbara.
Titian—Assumption of the Virgin.
Raphael—School of Athens.
    Transfiguration.
    Holy Family.
Correggio—Diana.
    Holy Night.
    Madonna.
Veronese—Industry.
Guido Reni—St. Michael and Dragon.
Carlo Dolci—St. Cecilia at Organ.
Bibliography

The following lists of books have proved helpful for the reference of student teachers in preparing the work in the different subjects. It is incomplete in many phases, and students are urged to fill in the blank page bound herewith with references which they find helpful. Some of the best material for use in geography is to be found in the current magazines, such as The World's Work, The Outlook, etc. The library indexes should be freely consulted.

HISTORY

Third Grade

Egyptians.

Myers, P. V. N.—Ancient History, chap. 3.
Petrie, W. M. F.—Egypt 3,000 Years Ago (Harper's, 77; 297).
Sumner, W. G.—Folkways, index under Egyptians.
Wilkinson, Sir J. G.—Manners and Customs of the Ancient Egyptians, 2 V.

Fiction: Ebers, George—Egyptian Princess; Cleopatra, etc.


Tyndale, Walter—Below the Cataracts (Lippincott for the illustration).
Perry—Egypt, The Land of the Temple Builders.

Dutton, Maude Barrows—In Field and Pasture.

Kemp—History for Graded Schools.

Arnold, Emma J.—Stories of Ancient Peoples.

Ehrman, Adolf—Life in Ancient Egypt.

Phoenicia.

Gibbins, H. de B.—History of Commerce.

Myers, P. V. N.—Ancient History, chap. 8.

Rawlinson, George—Phoenicia.

Kemp—History for Graded Schools.

Arnold—Stories of Ancient People.

Weights and Measures.—See New International Encyclopedia, under Weights, Boats.


Robinson, Philip—Going Down to the Sea in Ships (Harper's v. 72, pp. 683-690 (1885). Good pictures.

Starr, Frederick—Some First Steps in Human Progress, chap. 16.
Clarke, Russell W.—The Ship—Her Story.
Howden, J. R.—The Boys' Book of Steamships.

Greeks.

Vikings.
Fiske, John—Discovery of America, v. 1, chap. 2.
Olson, Julius, ed.—Voyages of the Northmen (Original Narratives of American History; Northmen, Columbus, and Cabots, pp. 3-77).

Homer.
Adaptations.
Bulfinch, Thomas—Age of Fable.
Cook, A. S.—Story of Ulysses.
Gayley, C. M.—Classic Myths.
Guerber, H. A.—Myths of Greece and Rome.

FOURTH GRADE

Colonial History.
Earle, Alice Morse—Home Life in Colonial Days.
Weeden—Economic and Social History of New England.
Howe, Daniel Wait—The Puritan Republic.
Moore, Nina—Pilgrims and Puritans.
Hart, Albert Bushnell—Colonial Children.
Colonial Stories from St. Nicholas.
Governor Bradford's Journal.
Earle, Alice Morse—Child Life in Colonial Days.
Pratt, Mara L.—Stories of Colonial Children.
Every-day Life in the Colonies.
Smith—The Thirteen Colonies.
Griffis—The Romance of American Colonization.
Earle, Alice M.—Colonial Days in Old New York.
Hemstreet, Chas.—Story of Manhattan.
Innes, J. H.—New Amsterdam and Its People.
Wilson, R. P.—New York, Old and New; Its Stories, Streets, and Landmarks.
Bruce—Economic History of Virginia in Seventeenth Century.

Period of Discovery and Exploration:
Howard, C. L.—Four Great Pathfinders.
Lawler—The Story of Columbus and Magellan.
Lemmon, Cooper E.—The History of Our Country.
McMurry—Pioneer Stories of the Mississippi Valley.
McMurry—Pioneer Stories of the Rocky Mountains and the West.
Gordy—American Leaders and Heroes.
Bass—Pioneer Stories.
Turpin, Edna H. L.—Stories from American History.
BIBLIOGRAPHY

Eggleston—Stories of American Life and Adventure.
Catherwood—Heroes of the Middle West.
Blaisdell-Ball—Short Stories from American History.
Shaw—Discoverers and Explorers.
Parkman—Pioneers of France in the New World.

Michigan:
Cox—Primer of Michigan History.
Campbell—History of Michigan.
Cooley—History of Michigan.
Holland—When Michigan Was New.
Railroad maps and guides.

Kalamazoo:
Fisher & Little—Compendium of History and Biography of Kalamazoo County.

FIFTH GRADE

Greek History.

I. Mythical history.
   Homer—Iliad, tr. by Lang, Leaf & Myers.
   Homer—Odyssey, tr. by Palmer.

II. Later history.
   Life of Early Greeks:
   Zimmern, Alice—Greek History.
   Blümner, H.—Life of the Ancient Greeks.
   Mahaffy, J. P.—Greek Life and Thought.
      Old Greek Life.
      Social Life in Greece.
   Contrasting ideas of Athens and Sparta, and Persian wars:
   Botsford, G. W.—History of Greece.
   Holm, Adolph—History of Greece.
   West—Ancient History.

   Age of Pericles:
   Plutarch Lives.
   Bulfinch, Thomas—Age of Fable, pp. 445-455.

   Philip of Macedon:
   Hogarth, D. G.

   Alexander the Great:
   Wheeler, B. I.

   Influence of Greek civilization on later life:
   Remach, S.—Apollo.

Roman History.

   Early and traditional history:
   Gibbons, Edward—History of the Decline and Fall of the Roman Empire, IV.
   Ihne, W.—Early Rome.
   Gayley, C. M.—Classic Myths.
Roman Republic.
   Arnold, Thomas—History of Rome.
   Plutarch's Lives.

Period of foreign conquest:
   General histories of Rome. See above.
   Smith, R. B.—Rome, Carthage, and the Punic Wars.

Civil strife:
   Inge, W. R.—Society in Rome under the Cæsars.

Roman Empire:
   General histories of Rome. See above.

Roman life in the time of Augustus:
   Inge, W. R.—Society in Rome under the Cæsars.
   Johnston, H. W.—Private Life of the Romans.

Sixth Grade

The Roman Empire:

Ancient Germans:
   Kingsley, C.—The Roman and the Teuton.

The invasion of the barbarians:
   Emerton, E.—Introduction to the Middle Ages.
   Hodgkin—Italy and Her Invaders, v. 2.
   Gibbon, E.—History of the Decline and Fall of the Roman Empire, v. 4.
   Oman, C.—The Dark Ages.

Beginnings of France:
   Duruy, V.—History of the Middle Ages.
   Munro, D. C. and G. C. Sellery—Medieval Civilization.

Charlemagne:
   Einhard—Life of Charlemagne.

The Northmen:
   Johnson—Normans in Europe, chap. 1-3.

The beginnings of England:

Feudalism and Chivalry:
   Adams—European History, chap. 2 and 5.
   Bulfinch—Age of Chivalry.

Mohammed:
   Irving—Mahomet and His Successors.

The Crusades:
   Archer and Kingsford—Crusades.
   Adams—Civilization during Middle Ages, chap. 11.

Peter the Hermit:
   Milman—Latin Christianity, v. 4.
Richard the Lion-hearted:
  Scott—Ivanhoe and Talisman.

Frederic Barbarossa:
  Emerton—Medieval Europe.

Philip of France:
  Living Age, v. 52; 577.

Saladin:
  Douglas—Heroes of the Crusades.

Children’s Crusades.
  Cox, G.—Crusades.

The Dark Ages summarized:
  Adams, G. B.—Civilization during the Middle Ages.
  Fisher, G. P.—Outlines of Universal History.

One Hundred Years’ War:
  Froissart—Chronicles.
  Bulfinch, T.—Age of Chivalry.
  Gomme—Queen’s Story Book.

Capture of Constantinople:
  Duruy, V.—History of the Middle Ages.
  Lodge, R.—Close of the Middle Ages.

Age of revival:
  Gibbins, H. de B.—History of Commerce in Europe.
  Chisholm, G. C.—Europe, v. 2.
  Cuts, E. L.—Scenes and Characters of the Middle Ages.
  Putnam, G. H.—Books and Their Makers in the Middle Ages, v. 1.
  Rawlings, G. B.—Story of Books.

Stories of Explorers:
  Fiske—Discovery of America, v. 1, v. 2.
  Columbus:
    Winsor, Justin—Christopher Columbus.
  Cabots:
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