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MINIDOKA RELOCATION PROJECT
HUNT, IDAHO
May 12, 1943

Office Of The Curriculum Adviser

Bulletin #2

To: Elementary School Teachers
From: Ethel M. Fitzsimons

You will be interested to know that Miss Haruye Matsuda can meet with those who wish to form a class in flower arrangement every Wednesday from 4:00 5:00 o'clock. According to present plans, the group will meet in the reception room of the Women's Dormitory #16. Miss Matsuda has made special arrangement whereby she will be able to teach the class at this hour. I trust that many of you will find it possible to attend the first meeting which will be held on Wednesday, May 19. The following items will be needed at the first meeting:

scissors
low bowl
flowers and greens
pin frog

Watch for posters for further announcements in the reception room of Dormitory #16.

I have noticed that children in many of the classrooms are now privileged to enjoy the bouquets of seasonal flowers. I appreciate the fact that teachers are ever mindful of the influences afforded by attractive plants and flowers in the classrooms. Without doubt, much can be done in the way of utilizing such objects in good teaching.

The Rexo-graphed sheets which are coming to you today should be helpful in linking current interests in elementary science with subsequent developments in the study of gardening.

By this time you have received copies of the book, "INSECTS" by Glen Eaton Hodson. These copies have been sent to you by way of furnishing materials with which to plan science lessons in connection with gardening activities. Insects have not yet become garden pests but it is not too early to do some planning with respect to study of insect control. Soon you will receive additional materials which I trust will be helpful in this connection.

In recent visits to the schools I have observed that boys and girls are faithful in the care of plants made near the barracks. It may be of advantage to know that Mr. Briggs advises that plants be watered in the afternoon or in the early evening. He says that watering at this time of day prevents soil from caking or baking. The water can soak into the soil without causing plants to wilt during the warmest part of the day.

SAMPLE RESOURCE UNIT FOR THE FOURTH GRADE

I. Problem: HOW MARCOS' LIFE DIFFERS FROM MINE

A. Aims (Teacher's)

1. To develop factual information about Mexico
2. To gain appreciations and sympathetic understandings for our neighbors
3. To develop the use of skills and abilities
4. To develop the techniques of working together on a common problem
 - a. Have aggressive children take leadership at times
 - b. Group slower learners together for an activity to provide opportunity for self-expression and development of initiative
 - c. Use care in selection of chairmen of committee work
 - d. Develop confidence through playground and other channels
 - e. Frequent praise for contribution of less aggressive students
5. To broaden our own cultural horizons through literature, art and music of other countries
6. To build respect and tolerance for the customs and traditions and beliefs which differ from ours
7. To establish desirable work habits
 - a. Perseverance
 - b. Ability to concentrate
 - c. Organized and logical thinking
 - d. Neatness
 - e. Industry and initiative
 - f. Ability to evaluate (self and others)
 - g. Cooperation
 - h. Wise use of time and articles
8. To stimulate the use of maps, globes, and other visual aids
9. To contrast health habits
10. To study the relationship between the development of our country and Marcos' country
11. To stimulate interests in study of simple measurements in our number work

II. Suggested Materials:

A. Reference books for teachers

1. Guide Books for Mexican Art Centers
2. Mexico, the Land of the Incas
3. Books on Mexican Handcraft
4. Mexico in Your Pocket
5. Bulletins on Resource Units

- C. Magazines
 - 1. National Geographic
 - 2. My Weekly Rdr. Vol. V, 16, 3
- D. Maps, globes, travel folders, pictures, slides
- E. Specimen, samples, Mexican articles
- F. Movies
- G. Media
 - 1. Sand tables
 - 2. Clay modeling
 - 3. Carvings
 - 4. Paper mache
 - 5.
 - 6.
- H. Musical records, dances, etc.
- I. Interviews, lectures and talks
- J. Museums

III. Sources

- A. Our professional library
- B. Our Community Library
- C. Our State Traveling Library
- D. Homes of the children
- E. Chamber of Commerce
- F. Travel Bureaus
- G. Magazines
- H. Museums
- I. Film Bureaus
- J. Personal films, pictures, souvenirs
 - 1. Mr. Hurst, Adm. office
 - 2. Churches
 - 3. Miss Bennett
- K. Interviews
 - 1. Miss Wahl, 6th grade teacher
 - 2. Miss Bennett
 - 3. Miss Hagland, Sr. H1 Science teacher
- L. Book Stores
- M. Children's Parents
 - 1.
 - 2.
 - 3.
- N. Radio

IV. Activities

- A. Reading (group and individual)
- B. Handwork
 - 1. Weaving
 - a. rugs
 - b. baskets
 - 2. Clay
 - 3. Drawing
 - 4. Designing
 - 5. Sewing
 - 6. Mask making
 - 7. Doll making
 - 8. Puppetry
 - 9. Carving

10. Metal work
11. Embroidery work
12. Cartoons
13. Paper cutting
14. Mexican decoration
15. Musical instruments

C. Dramatics

1. Rhythms and games
2. Writing and giving plays or dramatizations
3. Folk dancing
4. Songs
5. Pantomines

D. Creative activities

1. Poems
2. Dances
3. Stories
4. Rhythms
5. Costumes

E. Constructing model village showing Marcos' home

F. Preparation of Mexican food

G. Planning a party

H. Word Study

I. Planning attractive bulletin board

J. Exhibits

K. Planning program

1. For other grades
2. For assemblies

L. Letter writing--correspondence

1. Mexican children
2. Mother and daddy
3. Invitations
4. Thank you notes

M. Oral reports

V. Evaluation

A. Culminating activities

1. Assembly
2. Program for other room
3. Oral and written reports
4. Displays
5. Parents' Day
6. Objective test on learning and skills
 - a. Multiple choice
 - Ex. 1. Marcos' Christmas comes on:
December 1
July 4
December 25

Ex. 2. Marcos usually travels on:

- a train
- a burro
- an airplane

b. Completion:

Marcos' home is in _____.

c. Matching test

d. True False test

7. Writing an essay on some topic concerning Marcos' life

8. Teacher appraisal

- a. Anecdotal record
- b. Subjective rating
- c. Child's own rating

B. Appraisal in terms of aims

- 1. General school objectives
- 2. Pupils
- 3. Teachers

C. Cumulative Records

D. Running account of progress of unit

E. Individual and classroom graphs

F. Desirable outcomes

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

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MINIDOKA PROJECT SCHOOLS
HUNT, IDAHO
Nov. 18th, 1942

ART BULLETIN

I. Scope Areas

1. Production, distribution, and consumption
2. Mental and physical health
3. Family relationships
4. Leisure time
5. Spiritual and aesthetic life
6. Education
7. Communication
8. Transportation
9. Government
10. Conservation

Tentative report of Art Committee consisting of Miss Markholm, chairman, Miss Wahl, Miss Peavey, Miss Queen, and Miss Senda. The report is included in Items II, III, and IV of this bulletin.

II. Suggested Activities

Grade One - Theme: School and neighborhood

- | | |
|---------------------------|-------------------|
| 1. Paper cutting | 6. Basal painting |
| 2. Paper tearing | 7. Water color |
| 3. Clay modeling | 8. Chalk drawing |
| 4. Cardboard construction | 9. Crayon drawing |
| 5. Finger painting | 10. Picture study |

Grade Two - Theme: Our community

1. Carry on first grade activities
2. Correlate with music for design to develop rhythm
3. Dry brush work

Grade Three - Theme: Children of other lands and cultures of contrasting techniques

- | | |
|-----------------------------------|---------------------------------------|
| 1. Activities listed in Grade One | 6. Use of rulers, simple measurements |
| 2. Tempera painting | 7. Soap carving |
| 3. Dry brush (tempera) | 8. Definite periods for practice |
| 4. Simple poster design | 9. Appreciation studies |
| 5. Letter cutting | a. Pictures, sculptures, crafts |
| | b. Art from other cultures studied |

Grade Four - Theme: Communities from which we came

1. Other activities as in previous grades
2. Crayon etching
3. More water color than in the previous grades

Grade Five - Theme: Resources, producing, and marketing in region and Western Hemisphere

- | | |
|---------------------------------------|----------------------------|
| 1. Same as in previous grades | 4. Appreciation |
| 2. Black and white (charcoal tempera) | a. Pictures and sculptures |
| 3. Different crayon techniques | b. Industrial designs |

Grade Six - Theme: Resources, producing, and marketing in Europe, Africa, and Antarctic

1. Continue activities of the previous grades
2. Cartooning and caricature
3. Water color - value exercises (greying of colors)
4. Landscape or seascape composition
5. Picture maps
6. Dry brush painting emphasized
7. Pencil dust pictures
8. Spray gunning
9. Appreciation
 - a. Pictures - sculptures
 - b. Industrial designs (mechanical and crafts)

Grade Seven - Theme: How modern science and invention affect and influence man's living (emphasis on Asia and Australia)

Grade Eight - Theme: Individual planning for personal, social, recreational and civic responsibility

- | | |
|---------------------------------|--------------------------|
| 1. Linoleum cutting | 10. Freehand drawing |
| 2. Lettering | a. Pencil |
| 3. Posters | b. Charcoal |
| 4. Murals | c. Colored chalks |
| 5. Clay modeling | 11. Water colors |
| 6. Papier mache | a. Opaque |
| a. Masks | b. Transparent |
| b. Puppets | c. Dry brush work |
| 7. Puppets stage | 12. Finger painting |
| 8. Cardboard constructions | 13. Design |
| a. Boxes | 14. Appreciation studies |
| b. Notebooks | a. Interior decoration |
| c. Landscaping and architecture | b. Landscaping |
| d. Interior decoration | c. Clothing |
| 9. Figure drawing | d. Industrial design |
| a. Action | e. Pictures |
| b. Caricature and cartooning | f. Paintings |
| | g. Sculptures |

Grade Nine - Theme: Chronological conception of human development

1. Map work
2. Study of art contribution by:
 - a. Egyptians - painting, sculpture, and architecture
 - b. Assyrians - sculpture (bas relief and hollow relief)
 - c. Greeks - sculpture, architecture, and great artists
 - d. Romans - eclectic architecture - dome original
 - e. Medieval church art - illumination of letters in hand printed books
- development of Gothic architecture and sculpture
 - f. Renaissance - Early - Italian primitives (tempera - leaf, wooden base)
- High - great painters - Italy, Holland, Belgium, Germany, and Spain
 - g. Modern - landscape and English portrait paintings
3. Art elements and principles to be taught in any art work
 - a. Art elements - line, value, and color
 - b. Art principles - balance, dominance and subordination, rhythm and repetition, opposition and proportion

Grade Ten - Theme: The community, a human invention to satisfy needs

1. Community planning including
 - a. Landscaping
 - b. Architecture
 - c. Interiors
2. Color harmonies (for use in community planning)
3. Review art principles listed in Grade Nine

Grade Eleven - Theme: Continuous improvement of living within region and nation

1. Appreciation studies
 - a. Indian art - especially design
 - b. Works of American old masters - Homer, Sakers, and Ryder
 - c. Modern American art - painting, sculpture, and illustration
2. History studies
 - a. Map work
 - b. Early American painters - portraits of Washington and other notables
 - c. Genre painters
 - d. American war posters and cartoons - may draw own cartoons and posters
3. Review of art principles as mentioned in Grade Nine

Grade Twelve - Theme: Continuous improvement of living within the world

1. Appreciation studies
 - a. Modern art - beginnings in France
 - modern artists and their works and countries to which they belong
 - b. Art objects from other countries
2. History studies
 - a. War posters and cartoons
 - b. Map work
3. Art principles reviewed as listed in Grade Nine

III. Achievement goals (stated in terms of pupil behavior)

Grade One - Theme: School and neighborhood

Pupils should be able to:

1. Color correctly
2. Develop crayon technique
3. Recognize colors - red, yellow, blue, orange, green, and violet
4. Divide paper properly - good spacing
5. Draw large
6. Draw simple objects - house, tree, figure

Grade Two - Theme: Our community

Pupils should be able to:

1. Use first grade achievements confidently - review of first grade achievements
2. Color
 - a. Know the difference between warm and cold colors
 - b. Mix primary colors to make secondary colors
 - c. Show some restrictions in colors used together - teachers should show them some good examples
3. Show orderly arrangements
 - a. Large and small objects - perspective
 - b. Light and dark objects - values
 - c. Design - plan of drawing
4. Show rhythm in designs

5. Refine object drawing of
 - a. Shelters - house, castle, wigwam
 - b. Means of transportation
 - c. Figures - (head, face - very simple)

Grade Three - Theme: Children of other lands

Pupils should be able to:

1. Use confidently achievements of first two grades
2. Color
 - a. Use accidental mixing of color
 - b. Use monochromatic color harmony
 - c. Make neutral tones of colors - tints and shades
3. Refine object drawing of
 - a. Trees (types)
 - b. Mountains
 - c. Rivers - roads (winding and straight)
 - d. Toys
 - e. Figures (refine)

Grade Four - Theme: Communities from which we came

Pupils should:

1. Show willingness to practice to get results
2. Color
 - a. Know primary colors
 - b. Know secondary colors
 - c. Know complementary colors
 - d. Recognize neutral tones
 - e. Be able to use monochromatic and complementary colors in simple designs and posters
3. Objects
 - a. Refine drawing of trees, shelters, and transportation
 - b. Show more actions in figures
4. Perspective
 - a. Be able to draw roads, rivers, railroads, and fences (1 point)
 - b. Be able to draw foreshortened circle (wigwam, castle, silo, cone, cylinder)
5. Know and be able to use the following art principles
 - a. Proportion
 - b. Rhythm and repetition
 - c. Balance
 - d. Unity (dominance and subordination)
 - e. Opposition (lines in different directions)

Grade Five - Theme: Resources, producing, and marketing in region and Western Hemisphere

Pupils should:

1. Use confidently the achievements of previous grades
2. Color
 - a. Know the following art terms (to be introduced incidentally) - normal color, tints, hues, intensity, and value
 - b. Know colors that express seasons, time of day, and weather
3. Recognize good arrangements
 - a. Room decorations such as pictures, flowers, and art objects
 - b. Furniture and other schoolroom equipment
 - c. Clothing
 - d. Industrial design
4. Perspective - refine the use of
 - a. One point perspective
 - b. Foreshortened circle
5. Objects - refine drawing of objects introduced in previous grades

Grade Six - Theme: Resources, producing, and marketing in Europe, Africa, and Antarctic

Pupils should:

1. Use confidently the achievements of previous grades
2. Color
 - a. Be able to place colors on wheel or circle
 - b. Know how to find a complement
 - c. Be able to grey colors
3. Design
 - a. Be able to recognize and use a natural or conventional design
 - b. Be able to recognize and use abstract designs emphasizing geometric designs
4. Objects
 - a. Refine drawing of head - may draw caricatures and cartoons
 - b. Practice drawing objects mentioned in previous grades
5. Perspective
 - a. Refine drawing of one point or parallel, two point or angular, and circular perspectives
6. Art principles - be thoroughly familiar with balance, proportions, rhythm, dominance, and opposition

Grade Seven - Theme: How modern science and invention affect and influence man's living (emphasis on Asia and Australia)

Pupils should:

1. Use achievements of previous grades
2. Color
 - a. Be familiar with color harmonies previously taught (monochromatic-complementary)
 - b. Be able to use a triad color harmony
 - c. Be able to use analogous color harmony
3. Perspective
 - a. Be able to use parallel, angular or circular perspectives as needed in his drawings
 - b. Have a beginning knowledge of form
4. Produce work that shows his knowledge of art principles (dominance, balance, proportion, rhythm, opposition)
5. Show interest in some art activities that he may use in his leisure time
6. Show an interest in art works of other people

Grade Eight - Theme: Individual planning for personal, social, recreational and civic responsibility

Pupils should:

1. Use achievements reviewed in previous grades
2. Color - learn to use split complements color harmony in addition to monochromatic, complementary, analogous, and triad previously taught
3. Be able to understand and use the following art terms
 - a. Hue
 - b. Value (high-low) Art Elements
 - c. Line
 - d. Intensity (high-low)
 - e. Tints - shades - neutral tones
 - f. Design or plan or drawing

Grade Nine - Theme: Chronological conception of human development

Pupils should:

1. Show knowledge of art principles in any art work such as maps or illustrations (listed in seventh grade).
2. Understand that line, color, and value are elements by which they express themselves in their art work.

3. Know the meaning of common art terms listed under 8th grade achievements.
4. Know enough about the color harmonies to achieve pleasing combinations when used in their work. In addition to the ones taught in 8th grades, they should know a saturated color harmony and color used with black and white.
5. Know and appreciate the art contributions of Egyptians, Greeks, Romans, Medieval Church, and Renaissance.

Grade Ten - Theme: The community, a human invention to satisfy needs
Pupil should:

1. Same as in Grade Nine
2. " " " " "
3. " " " " "
4. " " " " "
5. Be able to choose or plan community architecture, landscaping, etc. that is both functional and artistic.

Grade Eleven - Theme: Continuous improvement of living within region and nation
Pupil should:

- 1 - 4 Same as in Grade Nine
5. Show an appreciation of Indian art, some early American art, and some modern American art.
6. Know the purpose and effect of war posters and cartoons.

Grade Twelve - Theme: Continuous improvement of living within world
Pupil should:

- 1 - 4 Same as in Grade Nine.
5. Be able to appreciate some modern art works.
6. Appreciate some foreign art and art objects.

IV. Objectives

Grade One - Theme: School and neighborhood

1. Guide the play impulse.
2. Develop the imagination
3. Develop pupil initiative
4. Develop color sense and discrimination
5. Develop a graphic vocabulary
6. Develop a sense of orderly arrangements
7. Work against detail
8. To use drawing as a means of expression

Grade Two - Theme: Our community
Same as for the first grade

Grade Three - Theme: Children of other lands and cultures of contrasting techniques

1. Same as in Grades One and Two
2. To develop the appreciation of the art of cultures studied

Grade Four - Theme: Communities from which we came

1. Same as in Grades One, Two, and Three
2. Develop criticism of their own work (pupil's work)

Grade Five - Theme: Resources, producing, and marketing in region and Western Hemisphere

1. Same as in previous grades
2. To understand that peoples art grows out of their resources and environment

Grade Six - Theme: Resources, producing, and marketing in Europe, Africa, and Antarctic

1. Same as in previous grades.
2. To develop an appreciation for art of other people and nations (Europe and Africa).

Grade Seven - Theme: How modern science and invention affect and influence man's living (emphasis on Asia and Australia)

1. Same as in previous grades.
2. To develop an appreciation for a few good pictures and sculptured pieces.
3. To develop an appreciation for the art of other people and nations.
4. To develop an aesthetic discrimination in the selection of articles used in everyday life.
5. Exposure of pupils to a few art activities that may result in leisure time use.

Grade Eight - Theme: Individual planning for personal, social, recreational and civic responsibility

1. All points listed under Grade Seven.
2. To develop some discrimination in selecting wearing apparel.
3. To develop a consciousness of our surroundings and means by which they may be improved.

Grade Nine - Theme: Chronological conception of human development

1. Develop a recognition of art principles and elements that may be a criteria for own and other's art work.
2. To develop an appreciation of the art of ancient, medieval, and modern nations.

Grade Ten - Theme: The community, a human invention to satisfy needs

1. Develop a recognition of art principles and elements that may be a criteria for own and other's art work.
2. To improve our environment through the selection of the material things used in everyday life (they should be functional and beautiful).

Grade Eleven - Theme: Continuous improvement of living within region and nation

1. Develop a recognition of art principles and elements that may be a criteria for own and other's art work.
2. To develop an appreciation for the artistic contributions of our American Indians.
3. To appreciate some of the work of American artists and craftsmen (contemporary artists).
4. To develop a consciousness of our individual responsibility to improve the aesthetic value of our homes, community, and nation.

Grade Twelve - Theme: Continuous improvement of living within world

1. Develop a recognition of art principles and elements that may be a criteria for own and other's art work.
2. To develop an appreciation for the art in our American, European, Asiatic, and African cultures; and the understanding that all peoples will be benefited by an exchange of art and art ideas.

V. General Aims for Minidoka Project Schools

1. To facilitate adjustment to the immediate environment.
2. To develop a program which will preserve and improve individual and community health.
3. To develop loyal, democratic citizenship, both through instruction and actual practice in the school and in the community.
4. To cultivate both fundamental and specialized knowledge and skills.
5. To create learning experiences that will result in the development of attitudes and appreciations leading toward an integrated personality.
6. To educate in the use of leisure time.
7. To foster the moral and spiritual growth of each individual.
8. To educate for post-war readjustment; as individuals, and as part of the family of nations.

In using this report please consider the following questions:

1. Are the learning activities found in the scope areas?
2. Are the achievement goals stated in terms of pupil behavior so that they can be evaluated?
3. Are the achievement goals necessary for general living to such a degree that they should be required of all pupils?
4. Do the achievement goals lead through the objectives to the General Aims?

Use the blank space above for notations and suggestions regarding this bulletin.

Miss Fitzsimmons

COURSE OF STUDY FOR ELEMENTARY SCHOOLS

MINIDOKA PROJECT SCHOOLS
Hunt, Idaho

SPECIFIC SUBJECTS TAUGHT

Kindergarten through Grade 6

May 27, 1943

- x I. READING AND (LITERATURE)
- II. PENMANSHIP (Poems)
- x III. ARITHMETIC
- x IV. SPELLING AND WORD STUDY
- V. ENGLISH
- x VI. GEOGRAPHY
- x VII. HISTORY
- x VIII. CIVICS Citizenship
- x IX. SCIENCE AND HEALTH
- x X. ART
- x XI. MUSIC

Mildred E. Bennett
Elementary School Principal

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COURSE OF STUDY FOR ELEMENTARY SCHOOLS

MINIDOKA PROJECT SCHOOLS
Hunt, Idaho

SPECIFIC SUBJECTS TAUGHT

Kindergarten through Grade 6

May 27, 1943

- I. READING AND LITERATURE
- II. PENMANSHIP
- III. ARITHMETIC
- IV. SPELLING AND WORD STUDY
- V. ENGLISH
- VI. GEOGRAPHY
- VII. HISTORY
- VIII. CIVICS
- IX. SCIENCE AND HEALTH
- X. ART
- XI. MUSIC

Mildred E. Bennett
Mildred E. Bennett
Elementary School Principal

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SUBJECT REQUIREMENTS FOR GRADES SEVEN AND EIGHT IN THE
STATE OF IDAHO

SEVEN

Arithmetic
Geography
History
Drawing
Physiology and Health
Language or English
Reading - (Science)
Spelling
Writing

EIGHT

Arithmetic
Citizenship
Idaho History
Idaho Civics
Drawing
Language or English
Reading - (Science)
Spelling
Writing

SUBJECT REQUIREMENTS FOR GRADES SEVEN AND EIGHT IN
THE STATE OF IDAHO

SEVEN

Arithmetic
Geography
History
Drawing
Physiology and Health
Language or English
Reading - (Science)
Spelling
Writing

EIGHT

Arithmetic
Citizenship
Idaho History
Idaho Civics
Drawing
Language or English
Reading - (Science)
Spelling
Writing

SUBJECT REQUIREMENTS FOR GRADUATION FROM IDAHO HIGH SCHOOLS

3 years of English
1 year of U.S. History and Government

SUBJECT REQUIREMENTS FOR GRADES SEVEN AND EIGHT IN
THE STATE OF IDAHO

SEVEN

Arithmetic
Geography
History
Drawing
Physiology and Health
Language or English
Reading - (Science)
Spelling
Writing

EIGHT

Arithmetic
Citizenship
Idaho History
Idaho Civics
Drawing
Language or English
Reading - (Science)
Spelling
Writing

SUBJECT REQUIREMENTS FOR GRADUATION FROM IDAHO HIGH SCHOOLS

3 years of English
1 year of U.S. History and Government

SUBJECT REQUIREMENTS FOR GRADES SEVEN AND EIGHT IN
THE STATE OF IDAHO

SEVEN

Arithmetic
Geography
History
Drawing
Physiology and Health
Language or English
Reading - (Science)
Spelling
Writing

EIGHT

Arithmetic
Citizenship
Idaho History
Idaho Civics
Drawing
Language or English
Reading - (Science)
Spelling
Writing

SUBJECT REQUIREMENTS FOR GRADUATION FROM IDAHO HIGH SCHOOLS

3 years of English
1 year of U.S. History and Government

MINIDOKA PROJECT SCHOOLS
HUNT, IDAHO
Dec. 18th, 1942

Note: The following reprint may be of assistance to teachers and especially the Language Arts Committee. It sets forth a practical method of teaching grammar.....O. D. Cole - Curriculum Adviser

WHAT GRAMMAR? AND HOW?

By W. Wilbur Hatfield
Head of the Department of English, Chicago Normal School,
Editor of the English Journal and of An Experience Curriculum

All scientific attempts to prove the value of grammar have failed. Yet in grades seven, eight, and nine, grammar is given more time than speech, or written communication, or creative expression--too frequently as much as all three combined. Are curriculum makers and teachers of English perverse, or stupid?

As one of them, who knows a great many of his colleagues, I consider them up to or above the average of the teaching profession in both intelligence and open-mindedness. (And teachers as a whole are in these respects not inferior to the American middle class, from which they are chiefly recruited.) Curriculum makers and teachers of English are neither stupid nor perverse.

The contradiction between theory and practice has a different explanation. The teachers know that they sometimes themselves make use of grammar to test doubtful constructions, and they feel rather sure that they subconsciously use grammatical concepts in building good sentences as well as in maintaining syntactical correctness. Hence they infer that pupils too would profit by a study of grammar.

It is in this inference that the mistake must lie. And believing that the specific locus of the mistake is in the kind of grammar study offered, I propose a more natural, instrumental, limited sort of grammar study.

The probable causes of the ineffectiveness of the present type of work suggest the new approach.

First, pupils who learn to define grammatical terms and to analyze sentences do not--frequently cannot--apply this knowledge in speaking, or even in writing. In educational jargon, we say that their knowledge transfers, or carries over imperfectly to error--detection tests and still less to actual use of language. Why? Because the definitions were not learned and the analysis was not practiced in connection with their own use of language.

Second, the definitions frequently lack real meaning, and the analysis contains a large element of guess work. These definitions have about the same relation to the language concepts that we think we are teaching through them as the definition of a cow as "a ruminating herbivorous quadruped mammal in

which the lacteal glands have been abnormally developed" has to practical knowledge of that animal. The definitions are very true, very abstract, very confusing, very useless. The child who learns by way of a logician's definition what a chair or truth is will never thereby know how to use a chair or speak the truth.

Can we, then, teach grammar in such a way as (1) to build real concepts of grammatical relationships, and (2) to connect those concepts dynamically with the pupils' own language? An Experience Curriculum in English¹ points the

¹An Experience Curriculum in English. A Report of a Commission of the National Council of Teachers of English, W. Wilbur Hatfield, Chairman. The D. Appleton-Century Company, 1935, \$1.75. Discount to members.

way. It proposes, in brief, (1) that the pupils shall be given exercises in imitating certain constructions which they need to use, and (2) that when through this imitation (perhaps accompanied under some circumstances by the teacher's interpretative comment) the grammatical concept emerges it shall be given its proper name.

Let us take an example from the report itself, page 228.

"For example, in a second grade many of the pupils employ only the subject-predicate-object order of sentence arrangement, so that monotony results. The teacher presents a brief story, four or five simple sentences, all in this monotonous form, but some of them with time or place expressions at the end. For example:

Freddy was four years old yesterday. Mama took him to the park in the morning. He played till noon in the sand pile. Mama got him his first sundae on the way home.

Then she suggests that this might sound better if some of the sentences were turned around, like this:

Freddy was four years old yesterday. In the morning mama took him to the park. He played till noon in the sand pile. On the way home mama got him his first sundae.

She asks the pupils to point out the words that were moved. Then she offers, perhaps in context, other sentences which have time or place expressions at the end, and asks the pupils to turn these around. Then she says that we call these expressions that tell when or where adverbs. She asks them to make some sentences with adverbs first. She will need to repeat this procedure, perhaps several times for many classes, before the pupils master this manipulation of the sentence, and on these occasions she simply calls the expressions to be moved adverbs.

Note that the pupils are not given any definitions, and do not make any for themselves. They are not required to use the grammatical terminology and are not formally tested on the recognition of adverbs. They simply learn by normal desirable manipulation of a sentence element which the teacher calls by its proper name, exactly as they have developed the concepts and learned the words bell, school, truth. No time at all has been spent on grammar as such. The pupils have not felt the strain

which attends the attempt to grasp the abstract generalization which formal grammar would have presented. Such presentation of grammar is entirely informal, yet may be quite systematic. It is incidental to and instrumental in the improvement of sentences, but it is in no sense accidental or haphazard."

Perhaps another illustration, this time at the junior high school level and not taken from An Experience Curriculum, will be useful. The teacher has noticed that a number of the pupils speak, and write perhaps, sentences like this: The top that spun the longest the girl got a piece of candy from the bag. or The girl that her top spun longest got a piece of candy. The pupils have already learned to use who and whom relative clauses. The teacher now shows them how this sentence may be straightened out: The girl whose top spun longest got a piece of candy. He offers a number of similar sentences for surgical treatment and the pupils operate upon these, using whose in each case. Then, and only then, he remarks that the clauses constructed are relative clauses and that whose is a relative pronoun like who and whom, but in the possessive case. Finally he asks the pupils to construct some sentences of their own, using whose relative clauses. Thereafter he--and if the teaching has been fully successful, the pupils, too--are alert to opportunities to use the new construction to advantage in actual communication.

This principle of developing the grammatical concept through manipulation of a needed construction is applicable to corrective work in usage also. Suppose that the difficulty is the use of the adjective for the adverb, as in John played very good last night. The teacher may present the incorrect sentence and in contrast the correct form. With these upon the board other incorrect sentences are offered for correction or sentences with appropriate blanks are presented. Pupils complete or correct these sentences until attention is thoroughly centered upon these adverbs. The teacher may during this process point out that these words show how John played, etc. Perhaps he points out, or develops by questioning, that they describe the action rather than the actor. Before the exercise is ended he calls these how words adverbs, and when the mistake crops up again and further drills are undertaken he naturally continues to call them adverbs. (This single attack does not, of course, constitute a complete teaching of the concept of adverb; but the other cases are treated similarly.)

Quarrel as much as you like with these particular illustrations; they are, no doubt, open to attack. Find fault with the arrangement of the items in the Instrumental Grammar work of the Experience Curriculum; it has no claim to scientific accuracy. But focus your attention on the vital idea which these imperfectly illustrate: grammar can be taught inductively in and through use.

When grammar is so taught, four advantages accrue: (1) Useless items, such as transitive and intransitive verbs, the cases of nouns (except the possessive), and the classes of adverbs, are automatically omitted. (2) Most of the time usually devoted to formal grammar is saved for more practice in communication and more motivated exercises in construction and usage. (3) Grammatical terms acquire real meaning, so that they are not forgotten every summer. (4) The transfer problem disappears, since the principles are learned in the actual situations in which they will be needed later. The general adoption of such a procedure, now used at times in some places, would constitute a major improvement in the teaching of English.

II. Grade One - Theme: School and neighborhood

A. Achievement Goals

1. Initial reading period
 - a. Read the simple interesting selections of primers
 - b. Work independently when unsupervised
 - c. Get thought from the printed page
 - d. Read in natural thought groups
 - e. Use easy conversational tone in reading
 - f. Speak with clear enunciation and pronunciation
 - g. Attack new words through context clues, noting similarities and differences, applying phonetic clues, and using association of meaning
 - h. Follow instructions as given for seatwork
 - i. Use books carefully and correctly
 - j. Stand and hold book correctly
2. Literature
 - a. Listen to stories attentively
 - b. Appreciate stories and poems suited to grade-level
 - c. Develop ability to share appreciation of literature with others
 - d. Memorize poems
 - e. Take part in simple dramatization
3. Language
 - a. Speak distinctly
 - b. Give attention while others are talking
 - c. Join in conversation naturally
 - d. Think a sentence through before speaking
 - e. Retell a short story suitable for the grade
 - f. Take part in simple dramatization
 - g. Repeat poetry that has been memorized
 - h. Use habitually the terms of polite intercourse, for example: excuse me; thank you; yes, Miss
 - i. Write one's own name correctly and independently
 - j. Know the following uses of capitals:
 - (1) Pupil's name begins with capital
 - (2) The word "I" is written with a capital
4. Writing
 - a. Keep body and materials in good comfortable position while writing
 - b. Have a clear mental picture of each letter form
 - c. Write in manuscript the alphabet, small and capital letters
 - d. Write on the line
 - e. Have a pride and satisfaction in achievement
5. Spelling - incidental spelling, oral and written, of words that come up in other work

B. Suggested Activities

1. Taking excursions
2. Conversing freely about experiences
3. Discussing work
4. Planning creative composition

5. Recording of activities
6. Illustrating through drawings and pictures
7. Using basic readers and supplementary readers for grade
8. Using workbooks for basic readers

III. Grade Two - Theme: Our community

A. Achievement Goals

1. Reading
 - a. Read with proper eye movement and without pointing
 - b. Read silently without lip movement
 - c. Read silently to answer questions
 - d. Read orally with ease
 - e. Use phonetic knowledge in word recognition
 - f. Read first reader material fluently
 - g. Read and understand material of second reader difficulty
2. Literature
 - a. Read and enjoy prose and poetry suited to the grade
 - b. Listen courteously to prose and poetry read to the class
 - c. Take part in simple creative work in connection with literature
3. Language and grammar
 - a. Write related sentences, dictated or original
 - b. Write own address as well as name
 - c. Talk with ease about simple everyday experiences
 - d. Give short oral reports on material read silently
 - e. Pronounce correctly the th and ing words
4. Spelling
 - a. Spell and use correctly approximately three hundred words (Horn-Ashbaugh)
 - b. Spell and use correctly simple words occurring in the children's everyday experiences as well as in their school life
5. Writing
 - a. Write manuscript neatly and legibly
 - b. Write short sentences
 - c. Space words correctly
 - d. Leave margins
 - e. Learn correct writing position

B. Suggested Activities

1. Reporting orally on observations
2. Creating stories and poems
3. Dramatizing simple plays
4. Carrying out activities suggested in textbooks and workbooks

IV. Grade Three - Theme: Children of other lands and cultures of contrasting techniques

A. Achievement Goals

1. Reading
 - a. Read more rapidly silently than orally

- b. Read and follow simple directions
- c. Recognize and analyze polysyllabic words
- d. Use mechanical make-up of the book such as the table of contents, index, etc.
- e. Read orally with ease and expression provided material does not contain word difficulties
- f. Read and understand material of third grade difficulty

2. Literature

- a. Find pleasure and enjoyment in reading and listening to stories and poetry written for children of this age
- b. Recite short poems from memory
- c. Take part in some creative work in connection with literature

3. Language and grammar

- a. Talk with ease about everyday experiences
 - (1). Use simple outline
 - (2). Select interesting beginning and ending sentences
 - (3). Use complete sentences
 - (4). Enunciate words clearly and pronounce words correctly
 - (5). Eliminate the use of too many and's, so's, and then's
- b. Write a short paragraph on some interesting topic
 - (1). Spell words correctly
 - (2). Capitalize first word of every sentence
 - (3). Use a period at the end of a telling sentence and a question mark at the end of an asking sentence
 - (4). Leave a margin
 - (5). Indent the first word of the paragraph
- c. Use correctly such verbs as is, do, bring, go, saw, sit, know, think, may, and can
- d. Capitalize names of days of the week, months of the year, and holidays
- e. Write correctly such contractions as can't, isn't, and aren't
- f. Write short letters

4. Spelling.

- a. Spell and use correctly approximately 500 words (Horn-Ashbaugh)
- b. Spell and use correctly simple words occurring in the children's everyday experiences as well as in their school life

5. Writing

- a. Use legible cursive handwriting
- b. Write rapidly and with ease
- c. Write with a relaxed arm movement

B. Suggested Activities.

- 1. Reporting orally on observations and books
- 2. Reading independently to find information
- 3. Making a simple outline
- 4. Creating stories and poems
- 5. Carrying out activities suggested in textbooks and workbooks

V. Grade Four - Theme: Communities from which we came

A. Achievement Goals

1. Reading

- a. Appreciate reading as a means of getting information, knowledge, and recreation
- b. Acquire a meaningful vocabulary from experiences in reading
- c. Use the dictionary for meanings, pronunciation, and syllabication of new words
- d. Locate material by using aids such as the index, table of contents, etc.

2. Literature

- a. Enjoy simplified writings of a few great authors, past and present
- b. Satisfy different moods through vicarious experiences in literature
- c. Widen interests and ideals and have a friendly mental attitude toward works of merit

3. Language and grammar

- a. Arrange ideas in suitable simple form of expression, written or oral
- b. Use effective expression through the control of words and sentences on level of grade
- c. Realize that exercises in all subjects are exercises in English
- d. Make simple outlines and fill in simple forms
- e. Write short compositions using good paper arrangement and correct language forms
- f. Write and address simple letters, invitations, and announcements
- g. Use correctly
 - (1). Capitals for the names of the Deity, abbreviations such as Mr., days and months, proper names
 - (2). Periods at the end of statements and common abbreviations
 - (3). Commas with words in a series, noun of address, yes and no
 - (4). Quotation marks for direct quotations
- h. Distinguish between a complete sentence and an incomplete one

4. Spelling

- a. Write neatly and legibly
- b. Learn 540 words minimum (Horn0-Ashbaugh)
- c. Appreciate the importance of correct spelling to all written work

5. Writing

- a. Arrange written work neatly and space it well
- b. Realize the importance of legible writing in written communication

B. Suggested Activities

1. Arranging ideas in logical order
2. Alphabetizing lists
3. Selecting key words
4. Reading to do what selection suggests
5. Taking notes
6. Discussing illustrations of stories
7. Selecting favorite parts of stories
8. Comparing characters in stories to those in real life
9. Reading in choral style
10. Dramatizing stories

VI. Grade Five - Theme: Resources, producing, and marketing in region and Western Hemisphere

A. Achievement Goals

1. Reading
 - a. Skim for specific information
 - b. Use dictionary references, tables of contents, etc., for information and as time-economy devices
 - c. Read orally, fluently and with pleasing voice
 - d. Outline and evaluate material of grade level in difficulty
 - e. Read silently 160 - 200 words per minute
 - f. Establish a library habit for recreational reading
 - g. Read widely and comprehensively
2. Literature
 - a. Recognize several important authors and illustrators
 - b. Appreciate the influence of the truly great literature upon important statesmen
 - c. Be familiar with some of the great characters of fiction
 - d. Satisfy different moods through reading experiences
3. Language and grammar
 - a. Make a brief report on some topic related to a content subject, stating sources of information given
 - b. Reproduce stories in an interesting manner with an accuracy for detail
 - c. Carry on a conversation or discussion, to the point and in good language form
 - d. Express ideas spontaneously and originally
 - e. Arrange written work well, using correct indentations, margins, titles, etc.
 - f. Make simple outlines with facility
 - g. Eliminate the superfluous use of and, so and then
 - h. Use a variety of name words (nouns) and descriptive words (adjectives)
 - i. Construct simple complex sentences
 - j. Use correctly the forms of the verbs: speak, write, give, know, choose, begin, throw
 - k. Express variety in sentence meaning by changing a word, as, the child came (running, limping, toddling, dancing, etc.)
 - l. Use the apostrophe properly to denote possession, singular and plural
 - m. Divide many common words into syllables using the hyphen at the end of the line

n. Write short friendly or business letters properly

4. Spelling

- a. Develop a "spelling-consciousness"
- b. Know where to find correct forms of spelling
- c. See words in meaningful relationships and not in isolation
- d. Spell words for grade accurately and others for common use
- e. Appreciate the importance of spelling as a means of forming words to convey meanings
- f. Learn a minimum of 540 words (Horn-Ashbaugh)

5. Writing

- a. Recognize handwriting as a tool by which to serve a means of communication
- b. Write legibly and with economy of time

B. Suggested Activities

1. Reading to find the statements which are essential to the meaning and purpose of the story
2. Quoting verbatim to illustrate or prove a point
3. Comparing information from different articles
4. Making a bibliography
5. Writing descriptions of imaginative adventure
6. Making significant details vivid by using descriptive terms such as the "piercing wind," "sloughing in the mud"
7. Interviewing the principal
8. Practicing voice pitch for various situations
9. Reading in choral style

VII. Grade Six - Theme: Resources, producing, and marketing in Europe, Africa, and Antarctica

A. Achievement Goals

1. Reading

- a. Evaluate and organize materials according to sequence and importance
- b. Outline stories of grade difficulty, showing clearly the main ideas and subordinate ones
- c. See relationships
- d. Read silently, factual material of grade difficulty, at the rate of 180 - 220 words per minute
- e. Read orally with correct pronunciation and phrasing and pleasing voice

2. Literature

- a. Appreciate the importance of contributions, fiction and non-fiction, by great writers of all times
- b. Sense that the material is of literary merit
- c. Realize the significance in literature of historical periods
- d. Recommend wholesome and appropriate books or selections to others
- e. Enjoy good literature for its own sake

MINIDOKA PROJECT SCHOOLS
HUNT, IDAHO

Nov. 28th, 1942

PHONETICS

prepared by Miss Alice Gwinn

In the Japanese language each vowel has only one sound: a as in father, e as in pen, i as in machine, o as in tobacco and u as in put. There may be a lengthening of these vowel sounds.

Instead of being made with the lower lip and teeth, f is bilabial and less explosive than the English f.

There are no g, l, v, x and th sounds in Japanese.

R is not quite the equivalent of the English r.

There are diphthongs: ai like ai in aisle, au like ow in cow, ei like ci in vein, ou like ou in though.

There is an accent of tone and not of stress.

N is the only final consonant sound, hence there is a strong tendency to drop final consonants or to add a vowel.

Japanese phonetic writing is not by letters but by syllables. For instance the syllables ka, ki, ku, ke, ko, ta, chi, tsu, te, to, etc. written in Romanization with two or three letters, are each written in Japanese with one character. As these syllables are indivisible, in pronouncing Japanese names the syllable division must follow the vowel. The name, Kagawa is ka ga wa, not Kag a wa. There are a few double consonants as in the name Hattori. The first t is pronounced with an intake of breath, the second t exploded. Where two ns appear together the second one is apt to take on an m sound.

Some masculine endings for personal names are: -tarō, -jirō, -saburō. These names may be given to the first, second and third sons. Other masculine endings are the syllables, -ō, -zo, -kichi, -yoshi, -taka, -suke, -emon.

A common feminine ending is -ko. Feminine names to which -ko has been added usually have a high pitch on the first syllable. Most trisyllabic names are pronounced with low pitch on first syllable and medial pitch on the other syllables.

When the pitch of a word is not known the safest rule is to pronounce each syllable with equal stress and tone. If this is done and the proper syllable division and vowel sounds are given, one can be easily understood.

Mr. Okita

MINIDOKA PROJECT SCHOOLS
HUNT, IDAHO
Dec. 29th, 1942

Note: The following outline of information and suggested activities has been prepared by Mr. Victor V. McLaughlin, Director of Health and Physical Education. It is submitted to teachers as a suggestion of things which can be done at various grade levels. We realize that equipment for carrying out many of these activities is not available. We list them as something to strive for.

O. D. Cole, Curriculum Adviser

GRADES 1 - 3

CHARACTERISTICS OF THE GROWTH AND DEVELOPMENT DURING THESE SCHOOL YEARS

1. Chief business of the child is to grow healthy and strong.
2. The larger groups of muscles are maturing more rapidly than the smaller groups; therefore, exercises of the shoulders, hips, and trunk are in order with little attention to accurate movements of the finer groups of muscles.
3. The child is learning through the sense organs and these are tuned up to receive vivid impressions. Therefore, games which stimulate the imagination and powers of imitation should be emphasized. The child's power of attention and interest is short and he is easily discouraged; consequently, it should be possible in his activities for him to reach the point of satisfaction quickly and without too great an effort. Games should be characterized by:
 1. a. Short duration of activity--as they become easily exhausted.
 - b. Quickly reach the climax--not too much excitement as this effects the highly strung nervous system.
 - c. Few rules and limited activities and duties.Play is individualistic. There should be no effort to emphasize the gregarious instinct.

OUTLINE OF ACTIVITIES

ACTIVITIES INDOORS

A. Construction activities

1. Play with large blocks and other shaped objects of wood for building, etc.
2. Sawing, boring, and pounding.
3. Drawing and painting.
4. Modeling with plastic materials.

B. Indoor games

1. Dramatic play (very valuable)
2. Rhythmic play--tradition folk games and singing games.
3. Individual competitive games.
 - a. Ball games
 - b. Bean bag activities
 - c. Nine pins
 - d. Simple races and running games

OUT OF DOOR ACTIVITIES

A. Free Play on apparatus

1. Low turning bar (valuable)
2. Balance beam
3. Swings, circle swing, and rings
4. Teeter
5. Acrobatics with swinging rings
6. Sand pile

B. Individual play activities

1. Running
2. Jumping
3. Hopping
4. Skipping
5. Walking
6. Simple dance steps and combinations of 1 - 5
7. Climbing
8. Throwing-tossing and catching-simple striking
9. Pushing and pulling
10. Carrying objects for poise

C. Organized games (also for indoor work)

1. All simple ball games
2. Various simple tag games in various formations
3. Simple relays (with or without obstruction)

D. Nature plays and games

1. With the wind
 - a. Kites
 - b. Pin wheels
2. With the sun
 - a. Shadows
 - b. Reflected light
3. With the water
 - a. Wading
 - b. Splashing
 - c. Boats
 - d. Water wheels
 - e. Dams
 - f. Swimming

GYMNASTICS

A. Posture training through imitative activities, plays, and games.

B. Simple exercises with swinging rings.

1. Swinging
2. Traveling
3. Leg and trunk exercises

C. Hopping, jumping, and running including simple gymnastic dance steps such as skipping, change step, gliding and galloping, etc.

EQUIPMENT

Play Room

Large floor space
Piano
Gymnasium mats
Climbing poles
Many large light balls
Jumping standards
Balance beams
Stall-bars for climbing and hanging

Play Ground

Large play space
Sand pile
Climbing poles
Balls for kicking and throwing
Swings, circle swing (giant stride)
Teeters
Slide
Turning bars (low)
Wading pool
Trees and shrubbery

CHARACTERISTICS DURING THE SCHOOL GRADES 4-5-6

Children, particularly toward the end of this period want games demanding a little cooperation and skill. They also show greater co-ordination in their activities than in previous grades. Therefore, our games should be those team games of lower organization and stunts of various sorts.

The heart and lungs are growing rapidly, the thorax is increasing in volume; therefore, we should give short exercises of speed which will stimulate in a rational manner these organs.

Health is very good at this period and resistance is built up with mild endurance exercises; such as, tramping, hiking, swimming.

Children are apt to acquire faulty habits in walking, standing, and sitting. The formal work should emphasize preventative and corrective exercises to correct these tendencies.

Games are characterized by:

1. Longer duration
2. Injection of daring
3. Definite rules
4. Introduction of an umpire.

OUTLINE OF ACTIVITIES

I. Athletics

A. Track and field events:

1. Dashes--25 and 50 yards
2. Throwing balls for accuracy and distance
3. Running high jump
4. Running broad jump

B. Team games:

- | | |
|---------------------------------|----------------|
| 1. Soccer | 5. Corner Ball |
| 2. Volleyball | 6. End Ball |
| 3. Dodge ball (various methods) | 7. Bat ball |
| 4. Bombardment and Battle Ball | |
- See Games and Dances by Stecher.

II. Dancing

- A. Folk (more attention to form and skill in steps)
- B. Gymnastic and simple dance combinations
- C. Natural.

III. Group games and relays

- A. See Games and Dances by Stecher
- B. Singing games (girls)

NOTE: Emphasize games which involve all players not a few at a time.

IV. Gymnastics

- A. Good posture in standing and walking and dancing
- B. Free exercises:
 1. Vigorous trunk exercises
 2. Exercises to keep joints supple
 3. Exercises to correct bad posture
 4. Exercises to strengthen the various body parts
 5. Springing exercises.
- C. Individual corrective exercises where needed

D. Apparatus

1. Exercises which develop agility--mostly in the hands
2. Jumping rope
3. Climbing
4. Swinging
5. Traveling (valuable)
6. Balancing

NOTE: No supports--only momentary supports.

V. Related Activities

- A. Hiking
- B. Swimming
- C. Skating
- D. Stunts

EQUIPMENT

GYMNASIUM

Large floor space
Piano
Gymnasium mats
Balls of all kinds
Basketball goals
Jumping standards
Climbing poles
Chinning bars
Ladders (adjustable)
Rings
Traveling rings
Balance beams

PLAYGROUND

Space large enough for various team games without preventing other activities from conducting their work.
Chinning bars
Balls of all kinds
Bars
Jumping pits
Climbing poles
Circle swings
50 yd. Running track

GRADES 7-8-9

CHARACTERISTICS AT THIS AGE

The child begins to realize his relation to others and that he is a part of a social group. He needs companionship.

Games where the individual stands forth are changing decidedly to those demanding more co-operation and manifestations of the group spirit.

Games are characterized for the boys particularly by:

1. Fighting, daring, and antagonistic spirit.
2. Many activities and coordinations involved.
3. Very definite rules for all games.
4. Team work as a result emphasized.

The child is undergoing great physiological changes during this period and a careful study of all these phenomena should be made by the teacher of Physical Education. Prolonged exercise of a vigorous nature should be avoided. This limits highly competitive sports.

OUTLINE OF ACTIVITIES

I. Athletics

A. Field and track

1. Increase length of dashes to 60-100 yds.
2. No endurance runs
3. All jumps involve local strength exercise and skill (care with standing jumps)
4. Low hurdles (short distances)
5. Shot put (eight pounds)
6. Relays

Girls

1. 50 yd. dash
2. Short relays (with or without obstacles)
3. High jump
4. Low hurdles (standard for girls)
5. Throwing balls for distance and accuracy

NOTE: For girl's work, stress form and variety rather than records and specialization.

B. Team games

1. Soccer
2. Speed ball
3. Basketball (short periods and fundamental practice)
4. Baseball--indoor and regular. Should learn fine co-ordination in all activities of baseball as a basis for future skill in this game. Baseball is good for development of grace in all athletics.
5. Modified football (touch football and practice in fundamentals)
6. Tennis

For girls

1. Fundamentals in hockey (field)
2. Teams for all types of group play
3. Baseball (indoor and playground)
4. Basketball (girl's rules)

NOTE: Team games make the strongest appeal in these grades. Emphasize the knowledge of rules and development of correct play habits for it will help them in later life.

II. Dancing (girls)

A. Folk

B. Gymnastic

C. Natural

More vigorous types involving more activity and skill.

III. Group games and relays

See Stecher: Games and Dances, also other texts.

IV. Gymnastics

- A. Good posture exercises in marching and standing.
- B. Individual corrective exercises where needed.
- C. Free exercises more difficult and for better coordination.
- D. Apparatus

1. Exercises in the hang with more skill and strength.
2. Various vaults and more sustained supports.
3. For girls, emphasize trunk work.

NOTE: A little effort on the part of the teacher to give knowledge of the values of these types of exercises ought to get better interest and results.

V. Allied Activities

Hiking, swimming, stunts, exhibitions.

VI. Equipment

See preceeding groups. Add 100 yd. running track and additional jumping pits with equipment for various events. Also, 8 pound shot put and vaulting poles.

GRADES 10-11-12

CHARACTERISTICS OF THIS AGE

There is a rapid increase in the growth of the heart and lungs.

Games ought to be those demanding much running so that these vital organs have the proper stimulation for healthy growth, and general endurance is developed.

There will be a greater division of work for each member of a team and the team and its unity of action will be the outstanding thing they will strive for in all their games. Much time should be devoted to skill in performance as the finer groups of muscles are receptive for all such training.

ACTIVITIES

ATHLETICS

A. Track and field

1. Increase the sprints--220 yds. and with individuals who have the proper development, the 440.
 2. Increase the endurance runs to those who have reached the stage of development which can withstand such activities--880 yds.
 3. All other field and track events--except longer runs.
- Girls: Increase difficulty of previous graded work.

B. Team Games

Use all the material in previous grades and add:

1. Football, one of the finest sports of this age.
2. Basketball avoiding training for long difficult schedules.
3. Ice Hockey

Group Games

Review previous grades.

Modifications of all major sports. The boys who do not make the teams should be encouraged to take part in classes of training in fundamentals of play for those sports. The slogan should be "every boy in a sport and a sport for every boy."

Dancing

Review of previous grades but with more difficult work which will demand more grace, agility, and endurance.

Gymnastics

Increase of difficulty in co-ordination and skill. In apparatus those activities calling for courage in performance are valuable. Free exercises should be emphasized for the hygienic element, correct coordinations and good posture. Also suppling exercises.

Equipment

Municipal courts for golf, tennis, hiking and camping privileges should be provided. Also for water sports and winter activities.

Develop initiative and individuality. No over-indulgence so that the body will be given every opportunity for good growth and development.

ELEMENTARY SCIENCE AND GARDENING

Teachers can make a garden and its products the most interesting material for the best of lessons in elementary science. Every plant the child grows is an individual with its own peculiarities. Its roots, stems, and leaves have certain form and structure; and often the special uses which can be made of the plants, leaves, stems, and roots are obvious. Each plant has its own form of flower, and even its own trick for securing pollination. It also has its own way of developing and scattering its seeds. Every weed of the garden can be studied and children can learn ways and means of controlling insect and weed pests.

Every earthworm working in the soil is doing something for the garden. Every bee that visits the flowers is on an errand for the garden as well as for itself. Every insect is doing something to the garden. Each bird that visits the garden is doing something which affects the life of the plant growing there.

Aside from all the study of individual life in the garden which even the youngest child may take part in, there are possibilities for advanced lessons in the study of the soil. In this connection, such questions as the following may be answered:

What kind of soil is it?

From what sort of rock was it formed?

What makes it mellow and fit for the growing of plants?

What do the plants get from the soil?

How do the plants get nourishment from the soil?

How do the plants use this nourishment in their growth?

The child who makes a garden has an opportunity to make intimate acquaintances with the plants which he cultivates. He has occasion to know first-hand the forms of life which are in his

garden and to become acquainted with their contributions to his garden. Thus can be developed a fundamental knowledge of nature's ways as they relate to practical agriculture.

Snake River Valley Soil

The Snake River like many other streams has a narrow, deep valley or canyon. This canyon is several hundred miles long and three to four thousand feet deep. In the wall of the canyon, one can see layer after layer of lava rock of various colors. At the bottom is the surface of the old land that was buried by lava.

Where did this lava soil come from? The answer is quite long. Once upon a time, great volcanoes poured out floods of melted rocks called lava. It flowed like water and covered nearly 200,000 square miles of land. Men know this because river canyons like the Snake River canyon help to tell us the story. Why is lava soil rich? Lava has been on the surface long enough to decay and turn into a deep, rich soil. Lava soil is rich because it is new. Most soils are second-hand soils, third-hand soils, or even older than that. In Florida sands were washed down when Florida was a sea bottom. The Geologist tell us that the rocks in Georgia from which some of Florida sand was washed were made of materials washed there from some other place. Soil may be moved by washing or by wind blowing dust from place to place. All of this washing and blowing causes soil to lose the plant food. So many of the old soils are poor. In Idaho the lava soil is fresh, new stuffs out of the crust of the earth and is rich in plant food.

There is lava soil in the State of Washington as well as in the State of Idaho. A farmer in Washington had a thousand acre wheat field on which he grew, in one year, 46,000 bushels of wheat. This is a very large yield in deed. The average yield of wheat in the United States is only about one-third as much per acre. Can you figure out what this yield will be? It is possible to raise large yields of crop in lava soil because it contains much plant food. Can you tell the kinds of foods which plants need?

SUGGESTIONS ON TEACHING PLANT LIFE

How To Make Plants Comfortable

Steps

- I. Acquaint children with flowers in bouquets brought to school. Discuss the colors, sizes, and shapes of the flowers. If possible, bring into focus the places and conditions prevailing where these flowers grew. Help the children to know the names of flowers brought to school.
- II. Cultivate the desire to care for flowers. Point out that holding stems tightly in a warm moist hand causes them to wilt. Direct attention to the effect produced when stems are placed in a container of cool, fresh water.
- III. Stimulate curiosity of the children with respect to ways in which the water reaches the top of each stem.
- IV. Perform experiments to show that plants need water.
 - A. Place stems in solution of red ink. Let them stand for a half day or more. Direct children's observations on the effect produced.
 - B. Fill three pots with rich earth, plant the same kind of seeds in each, and place them all in the same window. Let one plant water as it needs it, keep another flooded with water, and give the other none at all. Watch what happens to the seeds in the three pots.

Records of observations can be kept by way of training in English expression.

Such experiments say these can be used to help children understand that different kinds of plants need different amount of water, and that they grow in different kinds of soil.

SEEDS AND PLANTS

Every child should feel that every seed planted is a living germ that is struggling to grow. From first to last, the children should be taught that the object of the flower is to develop seed. They should learn also that many times the seed of the plant is found in the fruit, and that the fruit is the part of the plant that furnishes food for us.

In the case of young children, seeds may be personified such as, Bobby Radish, Tommy Turnip, and Carrie Carrot. Personified vegetables can keep diaries recording steps of development in the life of the plant. Example:

"I am Bennie Bean. Susie Jones planted me in sandy soil. I started to grow for I had some lunch with me. When the lunch was all gone, I found some food in the soil. I had only two leaves on my stem. Then roots reached down and picked up food from the soil. Then many leaves began to grow on my stem and some blossoms formed. In a short time the petals of the blossom dropped and long, green pods formed where the blossoms had been.

One day Susie's mother said, "My! These beans will soon be ready to eat. I must pick them before the beans inside the pods become hard. Perhaps I will leave some of the pods on the plants so that we can use the seeds inside them for planting next year."

GARDEN ENEMIES

Weeds:

Divisions of Study	Activities
I. Identification	<p>Writing questions about weeds</p> <p>Finding materials which give information about weeds- (making a bibliography - Setting up a "weed library")</p>
II. Parts of Plant <ul style="list-style-type: none"> Root Stem Leaves Flower Fruit Seed <p>It would be well to direct attention to one weed common in this locality for this part of the study. Every child can study a plant and all can watch changes as the plants grow.</p>	<p>Making excursions to observe and collect weeds</p> <p>Drawing sketches and labeling parts of plant</p> <p>Making mounts (see samples)</p> <p>Collecting and classifying weed seeds (see collection)</p> <p>Using tools needed in control</p>
III. Control <ul style="list-style-type: none"> Reasons for control Methods of control 	<p>"Broadcasting weed information" (Writing articles for school paper. Preparing bulletins for gardeners, farmers)</p> <p>Making charts</p>

"GARDENING GAMES"

Taken From Play Activities For Elementary Schools Grades One to Eight

By
Dorothy La Salle

GRADE I

Flowers and Wind
Squad, Mass (8-80 players)
Gymnasium, Play Room, Playground
No equipment

The players are divided into two equal parties, the flowers and the wind. Each party has a goal marked off at opposite ends of the room with a large neutral space in between. The flowers choose a name which they keep secret from the wind. They then run over to the goal line of the opposite party who attempts to guess the flower chosen. As soon as the right flower is guessed the winds chase the flowers back to their goal. Any players caught join the other party. The remaining flowers repeat the game, choosing a different name.

GRADE III

Gardener and Scamp
Squad (8-12 players)
Gymnasium, Play Room, Playground
No equipment

All players but two join hands in a circle. Within the circle, or garden one of the odd players, the scamp, takes his place. The other odd player representing the gardener remains outside of the circle. The gardener calls to the scamp, "Who let you inside of my garden?" The scamp answers, "No one." At this the scamp starts to run away. The gardener immediately gives chase but must take the same path as the scamp. The gardener must go through all of the movements performed by the scamp who may play leap frog over one of the others, turn somersaults, cartwheels, crawl between the legs of one in the circle, or do anything else which may make the chase difficult. When the scamp is caught the gardener becomes scamp and a new gardener is chosen. Should the gardener fail to perform any of the tasks set by the scamp he must rejoin the circle and the scamp has privilege of choosing another gardener.

GRADE VI

Rye Break
Mass (35-80 players)
Gymnasium, Playground
No equipment

Preparation. Divide the playing field into three equal spaces.

Players. Assign at least one couple (three or four if the group is large) to a position in the center space. Assign one-half of the remaining players to one end of the field and one-half to the other end of the field. Have all players in the end spaces take partners.

Object. The object is to run into the center space or rye field without being caught by the center couple.

Start. The games starts at a signal from the teacher.

Rules. The center couple must keep their arms or hands joined at all times. The end couples do not have to keep their hands joined. When an end player is caught, he must remain stationary in the eye field until his partner is caught. When the partner is caught, that couple changes places with the center couple and all previously caught return to their respective fields. On venturing into the barley field the end players taunt the center couple by crying "Rye break!"

Other games which may be adapted may be found in Play Activities For Elementary Schools, Grades One to Eight by Dorothy La Salle. Copies of this book are available in the professional library in Recreation Hall #23.

MINIDOKA PROJECT SCHOOLS

HUNT, IDAHO

June 4, 1943

TO: Teachers in the Elementary Schools

FROM: Ethel M. Fitzsimons

SUBJECT: Gardening

The progress being made in school gardening is gratifying to all interested observers as well as to participants. Now that irrigation water is actually flowing on the Project, prospects for rapid growth of plants are very promising. It is recognized that at the present time seed planting is of prime importance on the part of school groups. In view of this fact, copies of Mr. Briggs' outlines and diagrams on planting are being sent to you to supplement materials which you now have on hand. Because these suggestions which Mr. Briggs makes are directly pertinent to planting, it would be well for teachers and pupils to make thorough acquaintance with this information before putting the seed into the soil.

The cards which have come in are proving helpful toward finding and distributing materials which should be helpful in various units now underway. Two cards have not yet reached the Curriculum office.

Counting materials coming to you today you should now have in your hands sheets with the following heads.

Mr. Briggs' materials:

1. Suggestive Gardening Outline
2. Vegetable Time Chart
3. Vegetable Distance Chart

Curriculum Office Materials:

Elementary Science and Gardening

Snake River Valley Soil

Suggestions on Teaching Plant Life

Gardening Studies

Suggestions for Use in the Study of Ants

Suggestions for Studying Chicken Ways

Snail Study

Questions to Guide Observations

The Garden Snail

Suggestions for Use in the Study of the Earthworm

You may be interested to know the following miscellaneous items of information. It is better to study specifically one subject in a group than to spread information over a wide range. Example: Ant study can be representative of the insect group. Study of Lamb's quarter can be representative of weed study. The grasshoppers may be used as typical insects.

There are in the Curriculum office five rolls of cellophane which can be used for mountings when called for. It is gratifying to know that many gardening activities are underway. Already collections of fine materials representing activities have been assembled in the Curriculum office. Additional write-ups of activities and units are welcomed at all times.

Ethel M. Fitzsimons
Curriculum Adviser

HUNT HIGH SCHOOL
HUNT, IDAHO
June 4, 1943

Suggestive Gardening Outline

- I. Soils
 - A. Kinds
 - B. Location of garden plot
- II. Fertilizers
 - A. Kinds
 - B. Amounts
- III. Preparation of Seed bed
 - A. Methods
 - 1. Plowing
 - a. Spring
 - b. Fall
 - 2. Disking
 - 3. Harrowing
 - 4. Leveling
- IV. Planting the seed
 - A. Determining the varieties
 - B. Securing the seed
 - 1. Amounts
 - C. General arrangement of plot
 - D. Planting
 - 1. Time
 - 2. Depth
 - 3. Spacing
 - 4. Methods
- V. Cultivation
 - A. Methods
 - B. Purposes
- VI. Irrigation
 - A. Methods
 - B. Time
 - C. Amount
 - D. Sources
- VII. Insects, pests, diseases
 - Rodents
 - A. Kind
 - B. Preventative Measures
 - C. Control
- VIII. Harvesting
 - A. Time
 - B. Method
 - C. Canning & preserving
 - D. Storage

Sources of Information

USDA Leaflets

- #127 - Table best culture
- 123 - Chicory and endive production
- 154 - Parsnips production
- 128 - Rhubarb production
- 140 - Pepper production
- 128 - Spinach production
- 157 - Radish production
- 125 - Carrots production
- 151 - Eggplant production
- 141 - Pumpkin and squash production
- 142 - Turnips and rutabagas production
- 135 - Salsify production

University of Idaho Extension Bulletins

- Diseases of Potatoes #137
- Growing the Idaho Potato #141

Productive Soil - Weir

Mr. Briggs

QUESTIONS TO GUIDE OBSERVATIONS

1. Where do you find snails? Why do they like to live in such places?
2. How does a snail walk? Describe its "foot." How can it move with only one foot? Describe how it climbs the side of the glass jar. How does it cling?
3. What sort of a track does a snail leave behind it? What is the use of this mucus?
4. Where are the snail's eyes? Why is this arrangement convenient? If we touch one of the eyes what happens? What advantage is this to the snail? Can it pull in one eye and leave the other out?
5. Look below the eyes for a pair of feelers. What happens to these if you touch them?
6. What is the use of its shell to a snail? What does the snail do if startled? If attacked? When a snail is withdrawn into its shell can you see any part of the body? Is the shell attached to the middle of the foot? How did the shell grow on the snail's back? How many spiral turns are there in the full-grown shell? Are there as many in the shell of a young snail? Can you see the little ridges on the shell? Do you think that these show the way the shell grew?
7. Can you find the opening through which the snail draws its breath? Where is this opening? Describe its action.
8. Put the snail in a dry place for two or three days, and see what happens. Do you think this is for the purpose of keeping in moisture? What does the snail do during the winter?
9. Place a snail on its back and see how it rights itself. Describe the way it eats. Can you see the horny upper jaw? Can you see the rasping tongue? What do snails live on?
10. Do you know how the snail eggs look and where they are laid? How large is the shell of the smallest garden snail you ever saw? How many spiral turns were there in it? Open an empty snail shell and see how the spirals widened as the snail grew. Do you think the shell grew by layers added to the lip?
11. Do all snails have shells? Describe all the kinds of snails you know. What people consider snails a table delicacy?

TO A SNAIL

Little Diogenes bearing your tub, whither away so gay,
With your eyes on stalks, and a foot that walks, tell me this I pray!
Is it an honest snail you seek that makes you go so slow,
And over the edges of all things peek? Have you found him, I want to
know
Or do you go slow because you know, your house is near and tight?
And there is no hurry and surely no worry lest you stay out late at
night.

THE GARDEN SNAIL

Naturally enough, the snail cannot gallop since it has but one foot; but it is safe to assert that this foot, which is the entire lower side of the body, is a remarkable organ of locomotion. Let a snail crawl up the side of a tumbler and note how this foot stretches out and holds on. It has flanges along the sides, which secrete an adhesive substance that enables the snail to cling, and yet it also has the power of letting go at will.

SEEING

The horns are not horns at all, but each is a stalk bearing an eye on the tip. This is arranged conveniently, like a marble fastened to the tip of a glove finger. When a snail wishes to see, it stretches forth the stalk as if it were made of rubber; but if danger is perceived, the eye is pulled back exactly as if the marble were pulled back through the middle of the glove finger; or as a boy would say, "it goes into the hole and pulls the hole in after it." Just below the stalked eyes is another pair of shorter horns, which are feelers, and which may be drawn back in the same manner; they are used constantly for testing the nature of the surface on which the snail is crawling. It is an interesting experiment to see how near to the eyes and the feelers we can place an object, before driving them back in. With these two pairs of sense organs pushed out in front of him, the snail is well equipped to observe the topography of his immediate vicinity; if he wishes to explore above, he can stand on the tip of his tail and reach far up; and if there is anything to take hold of, he can glue his toe fast to it and pull himself up.

The way the snail uses his eyes is comical; he goes to the edge of a leaf and pokes one eye over to see what the new territory is like; but if his eye strikes an object, he pulls that one back, and prospects for a time with the other. He can lengthen the eye-stalk amazingly if he has need. How convenient for us if we could thus see around a corner.

EATING

It is interesting to observe through a lens, the way a snail takes his dinner; place before him a piece of sweet apple or other soft fruit, and he will lift himself on his front toe and begin to work his way into the fruit. He has an efficient set of upper teeth, which look like a saw and are colored as if he chewed tobacco; with these teeth and with his round tongue, which we can see popping out, he soon makes an appreciable hole in the pulp; but his table manners are not nice, since he is a hopeless slobberer.

During the winter, they bury themselves beneath objects or retire into soft humus. In preparing for the winter, the snail makes a door of mucus and lime, or sometimes three doors, one behind another, across the entrance to his shell, leaving a tiny hole to admit the air. There are varieties of snails which are eaten as dainties in Europe and are grown on snail farms for the markets. The species most commonly used is the same as that which was regarded as a table luxury by the ancient Romans.

BREATHING

In the right snail, the breathing pore is on the right side of the snail and may be seen as an opening where the snail joins the shell. This pore may be seen to open and contract slowly; by this motion, the air is sucked into the shell where it bathes the snail's lung, and is then forced out--a process very similar to our own breathing.

PROTECTION

The snail has good judgment when attacked; at the first scare, he simply draws in his eyes and feelers and withdraws his head, so that nothing can be seen of him from above, except a hard shell which would not attract the passing bird. But if the attack continues, he lets go all hold on the world, and nothing can be seen of him but a little mass which blocks the door to his house; and if he is obliged to experience a drought, he makes a pane of glass out of mucus across his door, and thus stops evaporation. This is a very wise precaution, because the snail is made up largely of moisture and much water is needed to keep his mucilage factory running.

SKIN

When observed through a lens, the snail's skin looks like that of the alligator, rough and divided into plates, with a surface like pebbled leather; and no insect intruder can crawl up his foot and get into the shell "unbeknownst," for the shell is grown fast to the flange, that grows out of the middle of the snail's back. The smoother the surface the snail is crawling upon, the harder to make him let go. The reason for this lies in the mucus, which he secretes as he goes, and which enables him to fasten himself anywhere; he can crawl up walls or beneath any horizontal surface, shell downward, and he leaves a shining trail behind him wherever he goes.

EGGS

Snail eggs are as large as small peas, almost transparent, covered with very soft shells and fastened together by mucus. They are laid under stones and decaying leaves. As soon as the baby snail hatches, it has a shell with only one spiral turn in it; as it grows, it adds layer after layer to the shell on the rim about the opening--which is called the lip; these layers we can see as ridges on the shell. If we open an empty shell, we can see the progress of growth in the size of the spirals.

SNAILERY

The pupils should make a snailery, which may consist of any glass jar, with a little soil and some moss or leaves at the bottom, and a shallow dish of water at one side. The moss and soil should be kept moist. Place the snails in this and give them fresh leaves or puppy fruit, and they will live comfortably in confinement. A bit of cheese-cloth fastened with a rubber band should be placed over the top of the jar. A tumbler inverted over a dish, on which is a leaf or two, makes a good observation cage to pass around the room for closer examination. An empty shell should be at hand, which may be opened and examined.

SUGGESTIONS FOR USE IN THE STUDY OF EARTHWORM

Leading thought--The earthworm is a creature of the soil and is of much economic importance.

Method--Any garden furnishes abundant material for the study of earthworms. They are nocturnal workers and may be observed by lantern light. To form some estimate of the work done in a single night, remove the "casts" from a square yard of earth one day, and examine that piece of earth the next. It is well to have a terrarium in the school-room for frequent observation. Scatter grass or dead leaves on top of the soil, and note what happens. For the study of the individual worm and its movements, each pupil may have a worm with some earth upon his desk, or small group may observe one or more worms.

Study Guide--1. How does the earthworm crawl? How does it turn over? Has it legs? Compare its movement with that of a snake, another legless animal. What special provision for locomotion has the earthworm?

2. Compare the lengths of the contracted and extended body. How accounted for?

3. Describe the body--its shape and color, above and below. Examine that segments. Do all the worms have the same number? Compare the head end with the tail end of the body. Has every worm a "saddle," or clitellum?

4. Does the earthworm hear easily? Has it eyes? It is sensible to smell or to touch? What sense is most strongly developed?

5. Describe the home of the earthworm. Is it occupied by more than one worm? How long does it take a worm to make a burrow? How does it protect its home? How does it make a burrow? In what kind of soil do you find earthworms at work?

6. Is the earthworm seen most often at night or by day? Where is it the rest of the time? How does it hold to its burrow? When is the tail end at the top? When the head end?

7. What is the food of the earthworm? How does it get its food?

8. Look for the eggs of the earthworm about manure piles or under stones.

9. What are the enemies of the earthworm? Is it a friend or an enemy to us? Why?

10. The earthworm is a good agriculturist. Why?

"Handbook of Nature-Study"

By Mrs. Anna Botsford Comstock

Gardening Recommendations

Our garden consultants, Toru Ogasawara and Henry Aoyama left the Project for a three months' work leave on Wednesday of this week. Each of the boys left specific recommendations for each grade group with the respect to gardening needs. The conscientious, faithful, and efficient services of the boys will be greatly missed. Let us work as diligently as they worked to keep our garden record one of which we can be proud. Mail will reach Toru and Henry at the following address:

c/O Chipman Livestock Co.
Nounan, Idaho

Care of Materials

The incoming of supplies and the fact that many individuals use the stockrooms make necessary the exercise of special care on the part of all school persons in the upkeep of these common-interest rooms.

With keys and locks still lacking in sufficient number to supply all teachers individually it is important that particular attention be given to the care of school property. Please see that valuable materials are placed in safekeeping at the end of each day.

Prospective Exhibit

So many fine pieces of work are being done in the Arts and Crafts classes that we would be lacking in vision not to plan to share outcomes with others. Will all teachers please see that work prepared by pupils is kept for the purpose of becoming a part of a school exhibit at the end of the summer term. Miss Wahl has plans whereby all may have a part in the exhibit without undue labor required of anyone.

Professional Attitude

In the planning of the summer modified program it was made clear that schedules and procedures would vary from those followed during the regular school year. However, it was not presumed that in the following of a flexible program there would be reasons for observers to conclude that school is merely a place in which to spend time. Well directed activity whether it be of recreational nature or otherwise requires careful planning and business-like execution. Let us not give observers reason to feel that our program is anything other than a well-justified one.

There is a limited amount of cellophane available for teachers who are interested in mounting specimens of plants, insects, flowers and the like.

Ethel M. Fitzsimons
Acting Elementary Principal

May 25, 1943

TO: Elementary School Teachers

FROM: Ethel M. Fitzsimons
Curriculum AdviserGARDENING STUDY CHOICES

In the Curriculum office is quite a large assemblage of materials which can be used to good advantage in the study of gardening. To gain the most value from these materials, you should have them in your hands this week. Until I know the phase of study that each person has chosen to develop with the children, I can not put into your hands the materials most helpful to you.

In order to make definite plans for the summer program which must become effective very soon, I feel that it is important that we have your choices on the gardening units and that they be turned in this week. Will you please see that the card in which you have expressed your choice is in the office of your principal not later than Wednesday at 4:00 o'clock.

FLOWER ARRANGEMENT CLASS

Plans are underway for the lesson in the arrangement of native wild flowers on Wednesday at 4:00 o'clock in the Recreation Hall of the Administrative Area. Miss Matsuda suggests that we have some of the green sagebrush as well as the silvery sagebrush for foliage. It might be well to ask the children to bring both blue and yellow wild flowers. Larkspurs and various colors of Lupine can be used to good advantage. Any of the yellow flowers available will be useful. The more flowers that we have on hand for the demonstration, the greater will be the opportunities for Miss Matsuda's giving to us a number of arrangements. I am sure that all of us will cooperate in making available as many flowers as possible for class use.

Large rather deep, flat bowls will be best for the arrangements, Miss Matsuda tells me.

Ethel M. Fitzsimons
Curriculum Adviser

EMF:ct

VEGETABLE	Production per 100 Ft.	DAYS TO COME UP	RATE OF PLANTING 100 Ft. Seed	Plants	RATE OF PLANTING PER ACRE
Asparagus	30 - 40 bunches	----	1 oz.	50 - 75	-----
Beans, Green	50 - 75 lbs.	6 - 10 days	1 lb.	300 - 600	Pole - 30 lbs 40 lbs.
Beans, Lima	75 - 100 lbs.	6 - 10 days	$\frac{1}{2}$ lb.	Pole 30 - 50	40 lbs.
Beets	100 - 125 lbs.	7 - 10 days	1 oz.	600	-----
Broccoli	50 - 75 lbs.	6 - 10 days	$\frac{1}{4}$ oz.	50 - 80	4 oz.
Brussel Sprouts	25 - 50 lbs.	6 - 10 days	$\frac{1}{4}$ oz.	50 - 50	2 $\frac{1}{2}$ oz.
Cabbage early intermediate	100 lbs.	6 - 10 days	$\frac{1}{4}$ oz.	50 - 80	$\frac{1}{4}$ lb.
Cabbage Late Red	150 lbs.	6 - 10 days	$\frac{1}{4}$ oz.	50 - 80	$\frac{1}{4}$ lb.
Carrots	100 - 125 lbs.	10 - 15 days	$\frac{1}{2}$ oz.	600	2 lbs.
Cauliflower	75 lbs.	6 - 10 days	$\frac{1}{4}$ oz.	50 - 50	1 oz.
Celery, summer Fall	100 - 150 bunches	12 - 20 days	$\frac{1}{4}$ oz.	200 - 300	$\frac{1}{4}$ lb.
Chard, Swiss	70 - 80 lbs.	-----	2 oz.	-----	-----
Chinese Cabbage	100 lbs.	6 10 days	$\frac{1}{4}$ oz.	-----	-----
Corn (Sweet) early intermediate	100 - 125 ears	8 - 10 days	$\frac{1}{4}$ lb.	-----	6 qt.
Eggplant	75 - 100 fruits	10 - 14 days	$\frac{1}{2}$ oz.	50	$\frac{1}{4}$ lb.
Lettuce Leaf Head	30 - 50 75 heads	6 - 10 days	$\frac{1}{2}$ oz.	120	2 $\frac{1}{2}$ lbs.
Muskmelon	100 fruits	6 - 10 days	$\frac{1}{2}$ oz.	-----	2 lbs.
Onion Seed plants	50 - 75 lbs.	8 - 12 days	1 oz.	240 - 400 plants	2 $\frac{1}{2}$ lbs.

Mr. Briggs

Vegetable	Depth of Planting	Distance in Rows	Distance between Rows		Days of Maturity
Beans, Green	1 - 2 in.	Pole 12 - 15 in. 3 - 4 in.	Pole - 4 ft. 20 - 36 in.	Pole - 4 ft. 15 - 18 in.	Pole 75 - 80 days 44 - 45 days
Beans, Lima	1 - 2 in.	6 - 10	36 in.	24 in.	65 - 80 days
Beets	1 in.	2 - 3 in.	20 - 28 in.	12 - 18 in.	55 - 70 days
Cabbage early intermediate	$\frac{1}{2}$ in.	15 - 24 in.	$2\frac{1}{2}$ - $3\frac{1}{2}$ ft.	24 - 30 in.	60 - 70 days 70 - 95 days
Cabbage late early	$\frac{1}{2}$ in.	15 - 24 in.	$2\frac{1}{2}$ - $3\frac{1}{2}$ ft.	24 - 30 in.	95 - 110 days 95 - 110 days
Carrots	$\frac{1}{2}$ in.	2 - 4 in.	20 - 23 in.	18 - 24 in.	65 - 80 days
Cauliflower	$\frac{1}{2}$ in.	15 - 24 in.	$2\frac{1}{2}$ - $3\frac{1}{2}$ ft.	24 - 30 in.	50 - 70 days
Celery summer fall	Hotbed $\frac{1}{3}$ in.	4 - 8 in.	$2\frac{1}{2}$ - $3\frac{1}{2}$ ft.	13 - 24 in. 13 - 36 in.	110 - 120 days 125 - 140 days
Chinese Cabbage	$\frac{1}{2}$ in.	12 - 18 in.	20 - 28 in.	16 - 28 in.	70 - 85 days
Corn (Sweet) Early Intermediate	1 in.	12 - 13 in.	$2\frac{1}{2}$ - 4 ft.	$2\frac{1}{2}$ - 3 ft.	65 - 80 days 80 - 85 days
Late	1 in.	12 - 18 in.	$2\frac{1}{2}$ - 4 ft.	$2\frac{1}{2}$ - 3 ft.	90 - 100 days
Cucumber	1 in.	2 - 4 ft.	4 - 6 ft.	4 - 6 ft.	55 - 60 days 60 - 65 days
Eggplant		24 in.	$2\frac{1}{2}$ - $3\frac{1}{2}$ ft.	24 - 30 in.	105 - 110 ft.
Endive	$\frac{1}{2}$ in.	8 - 12 in.	20 - 28 in.	12 - 18 in.	35 - 90 days
Horseradish		15 - 20 in.	3 - 4 ft.	3 - 4 ft.	
Kale	$\frac{1}{2}$ in.	8 - 12 in.	20 - 28 in.	16 - 24 in.	50 - 55 days
Kohlrabi	$\frac{1}{2}$ in.	4 - 8 in.	20 - 28 ft.	18 - 24 in.	55 - 65 days
Lettuce leaf Head	$\frac{1}{2}$ in.	4 - 8 in. 14 - 16 in.	20 - 28 in.	12 - 18 in.	40 - 45 days 75 - 90 days
Muskmelon	1 in.	3 - 5 ft.	4 - 8 ft.	4 - 8 ft.	75 - 95 days
Onion Seed Plants	$\frac{1}{2}$ in.	2 - 3 in. 3 - 5 in.	20 - 24 in. 20 - 36 in.	18 in. 14 - 18 in.	85 - 120 days 95 - 105 days
Parsnip	$\frac{1}{2}$ in.	3 - 4 in.	20 - 36 in.	18 - 24 in.	

Mr. Briggs