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STATE OF IOWA

THE IOWA PLAN
for
NUTRITION EDUCATION
in
ELEMENTARY SCHOOLS

R. B. 12-44

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STATE OF IOWA

THE IOWA PLAN

FOR THE

IMPROVEMENT OF

THE

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State of Iowa

FOREWORD

A strong nation must have strong, healthy people. During the early years of childhood, many life habits are formed.

This bulletin has been prepared as an aid to teachers in the development of a good attitude toward health and nutrition and suggestions to bring close coordination of this teaching with food practices in the home. The entire program has been planned and organized by a State Committee on Elementary Nutrition Education composed of:

Paul B. Norris, state supervisor of rural education

Edna Kraft, state supervisor of home economics education

Portia Deacon, assistant state supervisor of home economics education.

The committee responsible for the compilation of this material gratefully acknowledges the assistance given by the following people: Charlotte Stenberg, former rural teacher and normal training critic, now a home economics teacher of Garner; Maye Hagen, home economics instructor, Dubuque University; Mattie Pattison, associate professor of home economics education, Iowa State College; Ruth Seaton Hicks, executive secretary, Iowa State Nutrition Council; Ellen Hartnett, superintendent of schools, Jasper County; Joseph Flynn, superintendent of schools, Dubuque County; Sara Ann Brown, city nutritionist, Cedar Rapids; Madeline Healy, public health nurse, Linn County; Bernice DeGraff, Polk County rural teacher, Runnells.

In the use of these materials and the gathering of data, every caution should be exercised to the end that no embarrassment be caused any person. Information requested should be without identification if it might lead to comparison in any way of economic status of the individual child or family.

JESSIE M. PARKER
Superintendent of Public Instruction

AN "ALL-OUT" IOWA ELEMENTARY NUTRITION PLAN

Purpose: To Improve the Eating Habits and Attitudes of Every Child in the State of Iowa.

The aim of nutrition teaching in the elementary grades is to develop the habits of eating foods which are "good for us" and to develop in a child a feeling that he is responsible for his own health and indirectly for that of others. By actually preparing and eating foods in a pleasant atmosphere at school and by cooperation with the home in practicing good food habits, the child will understand the relationship of good eating habits to health. Other desirable attitudes to be developed are the sharing of food with others and avoiding waste in order to insure a sufficient supply of food for all.

In the school program ample time can be provided for teaching nutrition in the science and health periods with additional emphasis being given in the field of reading, English, spelling, agriculture, art, arithmetic and social studies.

Points being stressed by Iowa Nutrition Program:

1. Balanced diet centered around the noon lunch.
2. Care and use of milk.
3. Use of meat, cheese, eggs, and other meat alternates.
4. Use of "enriched" and whole grain bread and other cereals.
5. Use of less sugar.
6. Reduction of food waste.
7. Sharing of food with others.

Teacher Opportunities:

1. To interest parents in the program.
2. To determine the eating habits of children.
3. To establish an interest in good food habits.
4. To establish a desire to have good food habits and to teach what foods are needed by the body.
5. To determine the effectiveness of the nutrition program.

I. Your first opportunity is to interest parents and to secure their co-operation.

It is advisable to acquaint the people of your community with the program before making a study of the food needs of your pupils. This can be done by having the pupils make a school newspaper in English class to take home to their parents or through a local newspaper article, a letter to parents, or personal conversation, or, a discussion at a P. T. A. or similar meeting.

A. Ask the local newspaper editor to publish a feature article emphasizing the following points:

1. Statistics which show the need for placing special emphasis

on nutrition training in Iowa even though this state is "a land of plenty."

2. What the school plans to do to help children improve their eating habits through classroom work, school lunch program, etc.
3. Cooperation needed from parents and helps which the school can give the parents.

This article can be followed by other articles written from time to time telling of the progress that has been made.

Interest of parents may be secured by publishing school lunch menus or short articles on packing nutritious school lunches.

- B. Children may prepare articles such as the following to take home to their parents.

This year we are putting re-emphasis on nutrition education in the elementary schools. We need the cooperation of the parents if we are to help improve the nutrition of our country. The Iowa Nutrition Program is stressing the balanced diet, care and use of milk, use of meat, cheese, and eggs, use of "enriched" and whole grain flour, and the use of less sugar.

To be well-fed, growing boys and girls need three nourishing meals a day. During the school year many children eat the noon meal at school or a hurried lunch at home. Parents and teachers know how much good food has to do with healthy growth and realize that the lunch eaten at noon is just as important as other meals. A good lunch should include milk, fruit or vegetable, and one or more substantial foods.

Sometimes children do not eat enough of the right food because:

1. They have lost their appetites through eating sweets, etc., between meals.
2. They are too anxious to go out to play.
3. They lack hot foods that stimulate the appetite as they do not like to carry some of the foods good for them.
4. They do not have a cheerful, comfortable place in school to eat.
5. Foods carried are sometimes not appetizing by the time lunch is eaten.

If the child's health is to be all it should be, parents and teachers must work together. We need your help and we will appreciate your cooperation.

- C. Parents are often most interested in projects in which they have had a part. In some schools Victory Gardens have been planted and the products canned by the parents to provide food for the school lunch.
- D. Individual contacts with influential people in the community often help to promote the program.

E. Teachers and children might give talks to various service clubs in the community on the nutrition program in the school.

F. Exhibits in store windows, P. T. A. meetings, etc., can show members of the community what is being done in schools.

II. Your second opportunity is to determine the eating habits of the children in your school, and plan your program accordingly.

(Use A to determine food habits. Use B to determine effectiveness of teaching. C may supplement both.)

A. Have pupils keep a record of foods eaten for four days.

1. Use the following form:

Breakfast Noon Meal Evening Meal Between Meals

1st Day

2nd Day

3rd Day

4th Day

2. Use Monday, Tuesday, Wednesday and Thursday, if possible.

3. Have the pupils list in school the foods they actually ate for breakfast, lunch, and the evening meal on the previous day. Include all foods eaten between meals.

4. To get the most accurate record of food habits, it is best not to discuss the importance of any foods until the records have been completed.

5. Collect these records and study them to determine food habits of the pupils so as to emphasize what is needed. Compare with "A Guide to Good Eating" poster.

6. Keep and compare with a similar record periodically. (One day's meals every 4, 6, to 8 weeks)

B. Following is a copy which is suggestive of the type of questionnaire that might be used to determine eating habits of children.

1. Make a copy for each child.

2. Questionnaires may be filled out during a class period.

3. The teacher may check the answers during a teacher-pupil conference.

4. Collect and study questionnaire to determine food habits of your pupils so as to know what to stress.

5. Summarize these results and compare them to "Guide to Good Eating."

6. Repeat this questionnaire every four, six or eight weeks to determine improvement.

SURVEY FOR DETERMINING EATING HABITS OF CHILDREN

1. Do you eat breakfast? Yes_____ No_____

a. If you do, check the food you usually eat:

___tomato juice ___hot cereal ___pancakes ___milk
___oranges ___cold cereal ___potatoes ___cocoa

<input type="checkbox"/> grapefruit	<input type="checkbox"/> toast	<input type="checkbox"/> egg	<input type="checkbox"/> coffee
<input type="checkbox"/> fruit juice	<input type="checkbox"/> cookies	<input type="checkbox"/> bacon	<input type="checkbox"/> list other
<input type="checkbox"/> list other	<input type="checkbox"/> sweet rolls	<input type="checkbox"/> list other	<input type="checkbox"/> beverages
<input type="checkbox"/> fruits	<input type="checkbox"/> list other	<input type="checkbox"/> meat	
	<input type="checkbox"/> breads		

b. If you do not eat breakfast, check one of the following reasons or write other reasons:

<input type="checkbox"/> no time	<input type="checkbox"/> afraid it will make me fat
<input type="checkbox"/> not hungry	Other reasons:
<input type="checkbox"/> breakfast not ready	

2. Do you drink milk? Yes ☐ No ☐

a. If you do, how many glasses each day?

b. If you don't, why don't you? Check reasons or add others.

<input type="checkbox"/> it isn't served	<input type="checkbox"/> I am afraid it will make
<input type="checkbox"/> I don't like it	<input type="checkbox"/> me fat
<input type="checkbox"/> it isn't served cold enough	Other reasons:

3. Do you usually eat white bread? ☐ Dark bread? ☐ or both white and dark bread? ☐ Was the bread you ate "enriched" bread? Yes ☐ No ☐ I don't know ☐.

4. List the vegetables you ate yesterday:

5. List the fruits you ate yesterday for the noon and evening meal and between meals:

6. How many eggs did you eat yesterday? ☐

7. How many times did you eat meat yesterday? ☐

8. Do you eat fish? Yes ☐ No ☐ Often ☐ Seldom ☐

9. Did you have cheese in any form yesterday? Yes ☐ No ☐

10. Did you waste any food yesterday? Yes ☐ No ☐

A Suggestion for Using the Results of the Survey in Planning More Effective Teaching

In one Iowa county this record was kept by the children in the rural schools. In a typical school, where eleven pupils attended, the following results were found by the teacher.

Amount of milk consumed daily as a beverage:

none—1 child
1 pint or less—7 children
1 pint to 1 quart—3 children

Vegetables (other than potatoes) eaten daily:

none—6 children
1 serving—5 children
2 or more servings—0 children

Fruits eaten daily:

none—2 children
one—7 children
two or more—2 children

Eggs eaten daily:

none—9 children

one or more—2 children
Meat or meat substitute:
less than 5 times weekly—3 children
daily—8 children

How would this teacher know what to emphasize in her nutrition program?

1. Since only 3 children were getting the recommended amount of milk in their diets, she would want to stress ways of including milk in the diet.
Refer to the section on care and use of milk.
 2. The record definitely shows that no children in the group are eating a sufficient amount of vegetables. Special study might be given to the importance of a variety of vegetables in the diet, ways of raising and storing vegetables, and suggestions for preparing raw and cooked vegetables.
 3. Since only two children eat two or more fruits a day there should be some discussion as to the availability of fruits in the community and ways of using those which are available.
 4. Although the majority of these children are farm children, the majority of them did not eat eggs. What would be their reasons for not using eggs? Why should eggs be included in the diet? How can they be made appetizing to the children?
 5. The majority of the children are getting enough meat in their diets. Are they eating the kinds of meat that give them the best nutritional value? How will the teacher find out?
- C. Collect information through observations. (This will help you to determine what each pupil's needs are.)
1. Observe tactfully noon lunches brought by pupils.
 2. Notice conversations carried on in the school and in the home concerning what foods are eaten.
 3. Conversations between members of the family and the teacher may reveal some poor food habits.
 4. A part of every teacher's daily responsibility for noting her pupils' general appearance with reference to cleanliness, special attention should be given to signs and symptoms suggestive of malnutrition and undernourishment. There are, of course, no sure and simple indications of these conditions as symptoms may point to other physical difficulties. There are warning signals by which we may be guided.

CHARACTERISTICS OF

Good Nutrition and Malnutrition, adapted from Bogert, L. J.,

Nutrition and Physical Fitness

Published by W. B. Saunders Company

Good Nutrition

Malnutrition

Well-developed body.

Body may be undersized, show poor development, or physical defects.

Weight about average for height.

Muscles well developed and firm.
Skin firm and healthy color.

Mucous membranes of eyelids and
mouth reddish pink.
Hair smooth and glossy.

Eyes clear and without circles
under them.
Facial expression alert but with-
out strain.
Posture good—head erect, chest
up, shoulders flat, abdomen in.

Good nature; animation.

Sleep sound.
Digestion and elimination good.

Appetite good.
General health excellent.

Weight below normal (but in some
cases may be normal or over-
weight, body fat and flabby.)

Muscles small and flabby.
Skin loose and pale, waxy, or sal-
low.

Mucous membranes pale.

Hair often rough and without
luster.

Dark hollows or blue circles under
eyes.

Facial expression—drawn, worried,
old; or animated but strained.

Fatigue posture—head thrust for-
ward, chest narrow and flat,
shoulders rounded, abdomen pro-
truding.

Irritability, overactivity; or list-
lessness, lack of concentration.

Sleep restless, spasmodic.

Nervous indigestion and constipa-
tion.

Food habits “finicky.”

Lack of endurance and vigor and
susceptible to infection.

III. Your third opportunity is to establish an interest in good food habits.

A. Read or tell stories that will interest children in animal experi-
ments with food.

1. “White Rat from Hawkins Hall.” (This may be obtained free
from the Evaporated Milk Association, 307 North Michigan
Avenue, Chicago, Illinois.)
2. “Watch Them Grow” from the National Dairy Council, Chi-
cago, Illinois, gives information on where to obtain rats, how
to make cages, and how to care for the rats.
3. Foods and Nutrition by Silver, Fern, pp. 144-148, gives infor-
mation on rat feeding experiment.
4. See reference list for further helps.

B. Have good health stories on reading table and have some read
in class.

C. Show pictures of animals and children well-nourished and poorly-
nourished.

1. Poster “Milk Made the Difference”—National Dairy Council.
2. Good pictures showing the relationship between food and fit-
ness may be found in books in Home Economics libraries as:
Bogert, L. J., **Nutrition and Physical Fitness**
Silver, Fern, **Food and Nutrition**

- D. Show movies in counties where movie machines are available or can be borrowed. Secure one or more of the following movies or slides and show them to the children and adult groups:
- "A Guide to Good Eating"
 - "America Learns to Fly"^a
 - "Food and Magic"
 - "More Life for Living"
 - "Skinny and Husky"
- } Visual Aids Dept., Ames, Iowa,
Iowa State College
- (These can be secured by paying transportation costs only.)
"Johnnie's Lunch"—State Department of Health.
- E. Arrange some posters so that they will be easily seen by the children.
- 1. "A Good Breakfast"
 - 2. "A Good Dinner"
 - 3. "A Good Supper"
 - 4. "A Guide to Good Eating"
 - 5. "Choose Your Lunch Wisely"
- } National Dairy Council, Chicago, Illinois.
- F. Collect pictures of healthy and unhealthy looking children and animals from magazines.
- 1. Cut and mount these pictures.
 - 2. Write stories about these pictures.
 - 3. Make a cover for the booklet entitled, "Food Made the Difference."
- G. Weigh and measure and record weight and height.
- 1. Make individual growth record charts. ("My Growth Record," by National Dairy Council, Chicago, Illinois, may be used.)
 - 2. Check to see if weight is near normal. (Use weight chart from a hygiene book in your library.)
 - 3. List and discuss the foods that would help gain weight.
 - 4. Discuss other things that can be done which will help to gain weight. (Sufficient rest, outdoor exercise, care of teeth, etc.)
 - 5. Check weight with what books say weight should be.
- H. Carry out a rat-feeding experiment.
- 1. Learn how to carry on a rat-feeding experiment.
 - a. Rats should be from four to six weeks of age for the experiment. Either sex can be used, but if only two animals are used in the experiment, it is more satisfactory to use animals of the same sex.
 - b. Children may be able to make simple cages for the rats. See "Ups-and-Downs for Brother Rat" and "Watch Them Grow" for suggestions for building cages. Cages may be made by using a wooden box at least twelve inches by fourteen inches in size and fastening window screen or chicken wire over the top.
 - c. Keep the rats in separate cages.
 - d. Continue feeding experiment for at least four weeks or until results are very evident.

- e. The cages should be kept on a table or shelf where they can be seen easily by the children and where there is no draft.
- f. It is best to do the experimenting early in the fall or late spring as rats cannot stand to get cold.
- g. Pieces of paper put into the cage gives the rats a chance to make a nest to keep warm.
- h. Care should be taken in handling rats on the poor diets as they sometimes snap at one.
- i. Find out what the children in your school lack most in their diet. Omit these from the "poor" diet. (See the diets listed for rats.) Milk and vegetables are omitted from this "poor diet" because many children do not use enough of these in their diet.
- j. Suggested diets for rats:

(1) **Good Diet**

Bread and milk

Water

Vegetables: lettuce
cabbage
carrots
turnips
potatoes

Fruit: apple, any other
fresh or cooked
fruit

Crackers or toast and
butter

Meat or hard-cooked egg
(Liver or hamburger is
preferred)

(Be sure that the rat getting the good diet is fed bread and milk each feeding and at least one vegetable and one fruit daily. Lettuce or other greens such as spinach, carrot tops, beet tops and swiss chard should be fed often.)

- (2) If three rats can be used, feed Rat No. 1 the "good diet" suggested above; Rat No. 2 the same diet as No. 1, omitting milk only; and Rat No. 3, same as No. 1, omitting vegetable only.

2. Secure two white rats.

- a. Contact home economics teachers in your county. They may have white rats or be able to tell you where to secure them.

- b. Sprague-Dowley Laboratories in Madison, Wisconsin, can supply white rats at from forty to sixty cents each. (In ordering from a rat laboratory a group of teachers from a township or county should place their orders together to reduce shipping costs.)
3. Set up the rat-feeding experiment.
 - a. Make two cages for the rats.
 - b. Place one rat in each cage.
 - c. Name your rats and put their names on the cages.
 - d. The teacher will help decide what foods to feed each rat.
 - e. List the foods you are going to feed each rat on a card and fasten it to the cage.
 - f. Feed the rats once in the morning and once in the afternoon.
 - g. Put the bread and milk or bread and water into a fruit jar lid or a similar container.
 - h. Place small pieces of other foods in the cage. (Best results are obtained if food can be ground together and placed in another container so as to prevent rats from eating only the food they like best.
 - i. Give enough food and clean water at one feeding so it will last until the next feeding.
 - j. Clean cages daily, removing all leftover food and water and washing all containers.
 - k. If you have a balance scale to use, weigh the rats at the beginning of the experiment and at the end of each week.
4. Check your experiment.
 - a. At the close of each week try to answer these questions:
 - (1) Which rat has gained the most?
 - (2) Which rat has the nicer hair?
 - (3) Which rat has the brighter eyes?
 - (4) Which rat seems to be the healthier?
 - (5) Which rat is the nicer looking now?
 - (6) Which rat is the friendlier?
 - b. At the close of the experiment discuss:
 - (1) What made the one rat healthier than the other?
 - (2) Do you think these rats can teach us what to eat?
 - (3) Would the food eaten by the healthy rat make a good lunch for us?
 - (4) What foods should we eat every day?
 - (5) What foods should we eat at least once a week?
5. Display the results.
 - a. Perhaps you can arrange to invite parents and others in your community or other schools to come to hear you tell about your experiment and to see the results of your experiment. Have a display of foods each rat was fed.

- b. Put these rats on display in a local store window with a sign, "Food Made the Difference." Leave the diet list on each cage and have a display of foods each rat ate.
- c. Show the rats and explain your experiment at a P. T. A. program, etc.

NOTE: If a white rat experiment is not desirable, you might contact some home economics teacher in your county who is carrying on an experiment and ask for some of her pupils to come to your school and tell your pupils about the experiment. They probably could bring the rats with them. Arrangements could be made to do this during school hours or at a P. T. A. meeting.

Or, you might take your pupils to the Home Economics Department where the home economics girls can tell the pupils about the experiment.

Although white rats are most satisfactory for this experiment, guinea pigs or chicks can be used.

- I. Take kodak pictures of activities in relation to nutrition and send them to the Home Economics Education Department, State House, Des Moines, Iowa. Include a brief description of the activity. (These may be published by the State Department.)

IV. Your fourth opportunity is to establish a desire to have good food habits and to teach what foods are needed by the body.

- A. Make the school lunch-time attractive to the children.

1. Make the school lunch-time a pleasant occasion.

- a. Put up attractive posters showing food needs such as:

- (1) "Choose Your Lunch Wisely"
- (2) "A Guide to Good Eating"
- (3) "The Basic 7"

- b. Play soft phonograph or radio music while eating.

- c. Make attractive table-covers in art class.

- (1) Clean wrapping paper (decorated).
- (2) Paper napkins.
- (3) Oilcloth (about 12 by 16 inches—to be rolled up, tied with name on outside and stored in a clean place.)

- d. Practice good manners.

- (1) Have children take turns in passing out the lunches.
- (2) Wait until all are seated before beginning to eat.
- (3) Practice good table manners, including cheerful conversation.

- e. Develop good eating habits.

- (1) Wash hands before eating.
- (2) Eat at regular hours.
- (3) Eat slowly. Allow at least 20 minutes for lunch time.

- (4) Get enough liquids. Have a good supply of cold water with regular time for drinks.
 - (5) Drink water at mealtime if it is not used to wash food down.
 - (6) Relax before and after meals. Appropriate activities should be planned.
2. Make the school lunch attractive and appetizing.
- a. Have a hot dish.
 - (1) Bring food from home in pint jars to be heated by placing the jars in hot water.
 - (2) Prepare simple hot dishes in school. (Cream of tomato soup, potato and onion soup, creamed vegetables, etc.)
 - b. Introduce new foods, or old foods in new ways.
 - (1) Prepare and serve milk drinks as tomato milk drink, molasses milk drink, spiced milk, and peanut butter milk drink. (See recipe section.)
 - (2) Prepare and serve raw vegetables such as carrot sticks, ground mixed vegetable salads and sandwich spreads. (See recipe section.)
 - (3) Have children start a booklet to include these recipes and other favorite recipes brought from home.
 - c. Make plans for good lunches to include:
 - (1) Milk
 - (2) Fruit or raw vegetable
 - (3) Other substantial foods such as:
 - (a) Meat, cheese or egg sandwiches with whole grain or enriched bread.
 - (b) Scalloped or creamed vegetables.
 - (4) "Foods for Taste Appeal" as something **crisp, juicy, colorful, sweet, hot and cold.**
 - d. Learn to pack a good lunch correctly in school. (Demonstrate at a program for mothers or a P. T. A. program.)
 - e. Pack or help pack lunches at home every day.
 - (1) If children in school are able to have good lunches give cards like pattern below to those who have an "A" lunch.

Front of Card

You have an
"A"
lunch
Why? (See other
side)

Back of Card

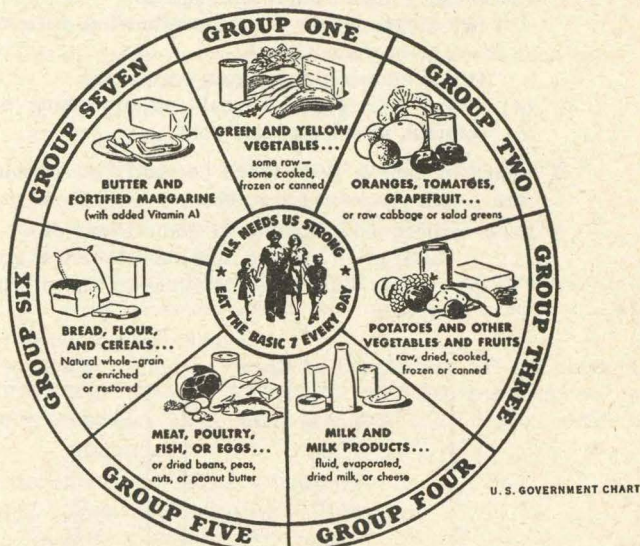
Because you have:
Milk
Fruit of Vegetable
Other substantial
food

- (2) Try to pack an "A" lunch at home. (See "A" Lunch Poster).
- f. Have school picnic using lunches planned in school.
- g. Copy these suggestions for good packed-at-home lunches into recipe booklets the children prepare for their mothers.
- (1) Meat sandwiches on whole grain or enriched bread
Carrot sticks
Fresh or canned pears
Cocoa (or other milk drink) in vacuum bottle or pint jar for heating
 - (2) Vegetable soup (in vacuum bottle or pint jar)
Egg salad sandwich using enriched or whole grain bread
Apple (or other fresh fruit)
Stuffed dates (or other dried fruit)
 - (3) Baked Beans (cold or to be heated in pint jar)
Cornbread and butter
Stewed prunes (or a fresh fruit)
Milk
- h. Have children select one of the lunch menus in the appendix. Plan the two meals they would eat at home to meet the suggestions given in the "Basic 7" chart.

B. Teach the food needs of the body.

1. Study the basic seven.

For Health...eat some food from each group...every day!



IN ADDITION TO THE BASIC 7... EAT ANY OTHER FOODS YOU WANT

- a. Make posters similar to the U. S. Government chart showing the "Basic 7."
 - b. Take the poster home.
 - c. Write daily menus that children like on the blackboard and check the menus by the "Basic 7."
2. Study "A Guide to Good Eating" poster.
 - a. Use it in scoring records of typical daily menus. (Use only good menus at first.)
 - b. Make posters similar to "A Guide to Good Eating."
 - c. Take the poster home. (It will be a reminder of what foods one needs to eat.)
 - d. Find out what soldiers, sailors, marines and athletes have to eat. Score one of their day's meals.
 3. Use food models including all daily food requirements. (See "A Guide to Good Eating" poster and the "Basic 7" chart.)
 - a. Cut pictures of food from magazines or draw and color pictures of the foods needed.
 - b. Mount them on firm paper with standards.
 - c. Select from these food models, foods that would make a good breakfast, a good noon meal, and a good evening meal.
 - d. Check to see if all the daily food requirements have been included. (See "A Guide to Good Eating" poster and the "Basic 7" chart.)
 4. Show the movies "America Learns to Fly," "Food and Magic," "More Life for Living" and "Skinny and Husky" which may be obtained from Iowa State College by paying transportation costs.
- C. Stress the use and care of milk.
1. Discuss the importance of keeping milk clean, cold, and well-covered. Suggest ways in which this can be done.
 2. Visit a dairy to see how milk is pasteurized and kept clean and cold.
 3. Discuss how and why milk is pasteurized. Give simple directions for pasteurizing milk at home.
 4. Make several milk drinks to serve to children. (See recipe section.)
 5. List other ways of getting milk into the diet. Make milk dishes such as creamed vegetables, milk puddings, etc., to supplement the lunch brought from home.
 6. Make posters showing the number of glasses of milk needed daily.
 7. Use individual graphs to show amount of milk used daily.
 8. Compare prices of milk in town, in cities and on the farm. (Have pupils see the advantages of farm life.)

D. Emphasize the importance of "enriched" and whole grain bread and other cereals.

1. Visit a grocery store to find out the kinds of bread and flour being sold. Read labels to see which are enriched.
2. Bring wrappers from bread and copied labels from flour sacks and breakfast cereal boxes to school to study.
3. Find out if the mother makes enriched bread or whole grain bread in the home. (Whole grain bread includes rye, cracked wheat, and 100 per cent wheat.)
4. Find out what enriched bread is and why whole grain bread and enriched bread are better for one than bread from refined flour.
5. Bring wheat, corn, corn meal, oats and rolled oats to school and exhibit them in glass bottles.
6. Find out how primitive people prepared the grain for eating. Bring an old-fashioned coffee mill; grind and cook some of the whole grains. (Use one cup ground wheat to four cups of boiling water and 1 teaspoon salt. Cook about three hours. Serve with a little sugar, syrup and honey and milk. Serve at noon to supplement lunch brought from home.)

E. Encourage the wise use of meat, cheese, eggs and other meat alternates.

Most people use meat, poultry, or fish at least once a day. This is desirable, but since these foods are now both expensive and scarce, foods such as cheese and eggs can well be used in the diet.

1. Bring samples of cheese from home. (Include cottage cheese)
2. Cut cheese into small attractive shapes.
3. Serve samples of cheese at noon.
4. Discuss ways to use cheese in cooking.
5. Give reports on how cheese is made and why it should be eaten.
6. Bring some milk and a recipe from home for making cottage cheese. Make and serve in school.
7. Bring favorite cheese dish recipes to copy in the recipe booklet.
8. Tell why eggs have been called "Nature's Prize Package of Food."
9. List as many ways of using eggs in the diet as you can.
10. Bring favorite egg dish recipes to copy into booklets.
11. Which of these egg dishes could be used in place of meat?
12. Bring eggs to cook in school.
13. Find out how to cook them so they will be appetizing.
14. Why should liver be included in the diet at least once a week?
15. Discuss foods which may be used to take the place of meat occasionally as fish, beans and other legumes.
16. Discuss ways soy beans may be grown as a school project. (See recipe section.)

F. Suggest ways to use less sugar.

1. Discuss wholesome desserts and when to eat desserts.
(Custards, puddings, fresh, dried, and canned fruits and ice cream, etc.)
2. List desserts that require little or no sugar.
(Dried fruit, fresh fruit, desserts sweetened with honey, syrup, or molasses, gelatin fruit desserts, etc.)
3. Bring favorite sugar-saving recipes and copy into recipe booklets for parents. Make simple desserts that require little or no sugar in school.
4. Secure sugar-saving recipes from the County Nutrition Adviser to add to recipe booklets.

G. Reduction of food waste.

1. Use the school lunch as a means of setting a good example through which education on food conservation may be extended in the community.
(If part or all of the lunch is prepared at school.)
 - a. Encourage clean plate habits. Waste is often caused by too large servings, food poorly prepared, the same foods served too often or the use of unfamiliar foods without proper introduction.
 - b. Plan interesting ways of using edible left overs.
 - c. Prevent food spoilage by having suitable facilities for storage. Have children or adults in the community make:
 - (1) Cellar or pit for storage of fruits and vegetables.
 - (2) Space and suitable containers for storing staples.
(If lunches are brought from home.)
 - d. Encourage eating the entire lunch.
 - e. Make and display "Clean Plate" posters.
 - f. Have each child bring a different vegetable from home and make a display of ways to serve raw vegetables. Pass samples. (See recipe section.)
2. Encourage children to assist in the conservation of food at home.
 - a. Make posters to show the proper storage of fruits and vegetables.
 - b. Use language or science periods to tell how fruits and vegetables are stored at home.
 - c. Prevent loss of food value by
 - (1) Preparing fruits and vegetables just before serving.
 - (2) Avoiding soaking pared fruits and vegetables.

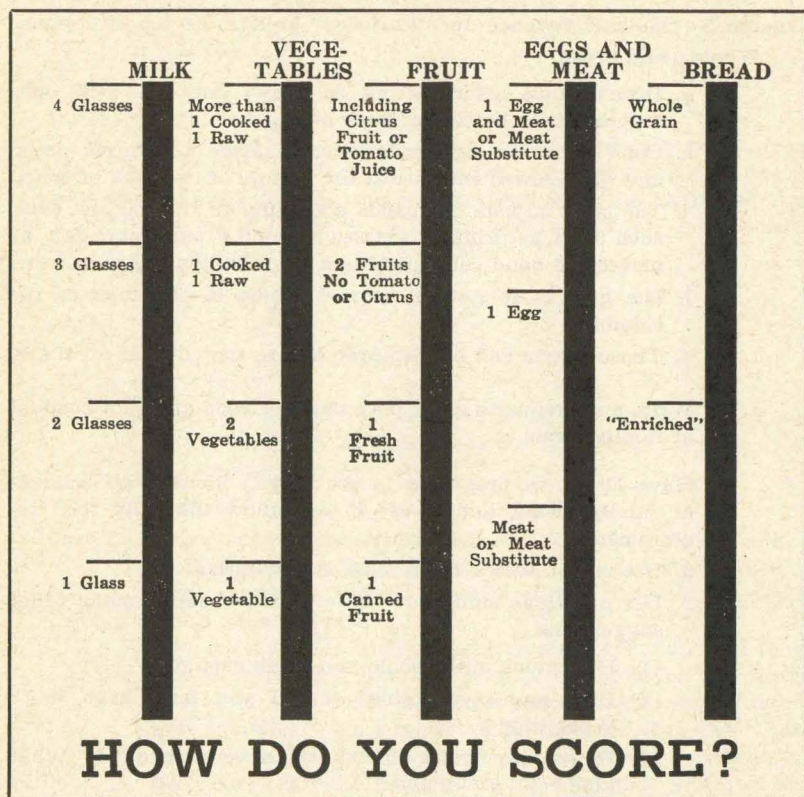
- (3) Cooking in the shortest time possible.
- (4) Cooking whole and unpared.
- (5) Using small amounts of water.
- (6) Serving raw fruits and vegetables frequently.

H. Sharing of food with others

1. Encourage children to share surplus fruits and vegetables with other children in school.
 - a. Have a surplus fruit basket. Encourage each child to help keep the fruit basket filled and to use this fruit to supplement the lunch brought from home.
 - b. Read stories on sharing food with others.
 - c. Have older children report on how and why our nation is sharing food with other countries. Discuss how each one may help make this possible.
2. Encourage community sharing of fruits and vegetables.
 - a. Make the school the center for a community fruit and vegetable exchange.
 - b. Have a community canning project through which ample foods may be provided for the school lunch.
3. Encourage widespread use of plentiful foods and foods in season.
 - a. Study which foods are plentiful locally and nationally.
 - b. Plan school lunches using plentiful foods.

I. Motivate good food habits by using interesting learning devices.

1. Make a graph chart to motivate eating the right foods. Directions for making the graph chart, "How Do You Score?"
 - a. Use a cardboard tablet back or oak tab about $8\frac{1}{2}$ x 11 inches.
 - b. Cover the cardboard with white paper, by pasting.
 - c. Cut on heavy lines which are placed about one and one-half inches from the top and bottom of cardboard (See drawing).
 - d. Use "stay tape" or white bias tape or white strips of material from home. (If material is used, it should be about one-inch wide so it can be doubled.) Five strips each 17 inches in length are needed.
 - e. Insert strips of tape as columns in slits cut on heavy lines.
 - f. Label columns:



Column 1—One-fourth distance up: 1 glass milk. One-half distance up: 2 glasses milk. Three-fourths distance up: 3 glasses milk. At top of column: 4 glasses milk.

Column 2—One-fourth distance up: 1 vegetable. One-half distance up: 2 vegetables. Three-fourths distance up: 1 cooked, 1 raw vegetable. At top of column: More than 1 cooked, 1 raw vegetable.

Column 3—One-fourth distance up: 1 canned fruit. One-half distance up: 1 fresh fruit. Three-fourths distance up: 2 fruits—no citrus or tomato. At top of column: 2 fruits—including citrus fruits or tomato juice.

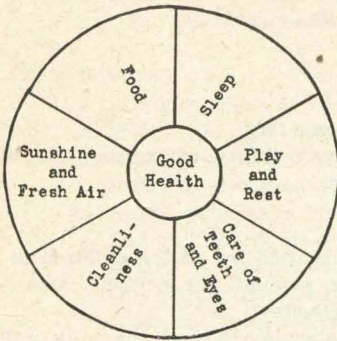
Column 4—One-third distance up: Meat or meat substitute. Two-thirds distance up: 1 egg. At top of column: 1 egg and meat or meat substitute.

Column 5—One-half distance up: "Enriched" bread. At top of column:
Whole grain bread.

- g. Insert bands after cutting on heavy lines and sew ends together near bottom of back of chart.
 - h. Color bands on right side of chart, each a different color, and while sewed ends are at the bottom of the back of chart.
 - i. The child adjusts the bands according to the food he eats: such as, if he drinks 2 glasses milk on a particular day, he moves the band colored-column up to "2 glasses milk," etc.
 - j. The goal is to get all colored bands to the tops of the columns.
 - k. These charts can be displayed before the child at all times.
2. Write and produce a short play showing good and poor conduct at family meals.
 3. Have Dr. I. Q. programs to see if you know good conduct at family meals, and to see if you know the daily food requirements.
 - a. Use carrot sticks, fruit, milk, etc., as prizes.
 - b. Use questions similar to these: (Have pupils make other suggestions.)
 - (1) How much milk should you drink each day?
 - (2) How many vegetables should you have each day? What kind?
 - (3) How many fruits should you have each day? What kind?
 - (4) How much meat should you have each day?
 - (5) How many eggs should you eat each day?
 - (6) What kind of bread should you eat?
 - (7) When ready to eat a meal, how do we know when to begin eating?
 - (8) What should we always do before handling food?
 - (9) How can you tell if the bread you eat is enriched or not?
 - (10) Make a biographical sketch of some local person who drinks milk and eats the right foods such as athletic coach or a personage such as Bob Feller or Douglas MacArthur.
 - (11) Thought twister:
Do you drink milk, said Willy to Billy;
I do drink milk, Willy, to him said Billy.

4. Make posters:

FOR GOOD NUTRITION



Good health does not result from the practice of any one good health habit but from the continued regular practice of all good health habits.

5. Dramatize desired food habits: Food for Teeth on Parade.
(A good summary of food needs for teeth may be used at P. T. A. meetings, etc.)

Directions:

Make large cardboard cut-outs of a tooth or a set of teeth, a tooth brush, a glass three-fourths full of tomato juice, a large orange, a carrot, a bottle of cod liver oil, an apple, and a slice of toast.

Give one model to each of eight children who will hold these models in front of him and pretend to speak for the model. The child who holds the tooth model might step forward first and say, "I am a tooth" or "I am a set of teeth", "I am getting hungry: I need some food." He should remain in his place and the child holding the glass of milk join him and explain how much milk his teeth need. He might pretend to pour milk between the model row of teeth. The child holding the teeth will say, "My, how this will make my teeth grow." When each food has been presented in this way and all are now standing in a line across the front of the room, the toothbrush comes up and pretends to clean the teeth demonstrating how teeth should be cleaned. The models may then march around the room singing a song about "Feeding Our Teeth." This may be composed by the children and sung to some familiar tune.

J. Integrate nutrition program with other subjects.

1. Art

- a. Make posters relating to correct food habits.
 - (1) Good lunches
 - (2) Milk and milk products
 - (3) Amount of milk growing children should have daily

- (4) Daily food needs
 - (5) Meal patterns
 - (6) Vegetables for school lunches
 - (7) Correct care of milk
 - b. Set up exhibits.
 - (1) Good lunches
 - (2) Three good meals for one day
 - c. Have pupils take the responsibility of making the lunch tables attractive at school.
2. Arithmetic
- a. Find out how much milk is used by all the children in one day. Figure the average amount per person. Does this equal the standard requirements?
 - b. Work out problems to determine how much milk will be needed to serve milk drinks to all pupils in school.
 - c. Compare the cost of one serving of milk, cheese, fruit and vegetables with meat.
 - d. Plan one or more good lunches.
 - (1) One brought entirely from home.
 - (2) One brought from home with one hot dish purchased at school cafeteria.
 - (3) One purchased entirely at school cafeteria or otherwise.
 - (4) Figure the cost of each.
3. English and Spelling
- a. Write or give talks about visits to dairy farms, creamery, food markets, etc.
 - b. Give talks on the selection, care and value of fruits, vegetables, milk and milk products, etc.
 - c. Write playlets on Good Lunches, Good Table Manners, etc., to give at programs for parents, other schools, etc.
 - d. Write invitations to parents or other schools to come out to programs showing what you have done in nutrition.
 - e. Write articles for the newspaper about your experiences with food.
 - f. List new words you have used in your study of foods. Learn to spell these words. Review vocabulary in appendix.
4. Social studies
- a. Study the eating habits of people in other lands. List special foods associated with specific countries.
 - b. Make a list of food customs in your locality.
 - c. Compare these with food customs of people in other lands.
 - d. Find what animals produce milk for people to drink in other countries. (See "Animals That Give People Milk" from National Dairy Council, Chicago, Illinois.)

- e. Find out where the foods you eat come from.
- f. Plan the three meals for one day using only foods that come from your own state.

5. Science

- a. Study enemies of food production.
- b. Write or give talks concerning insects as friends and enemies of man.
- c. Study food values of various plants.
- d. Study animals in respect to their value in food production.
- e. One unit should be developed around the contents of various foods. As an activity, foods could be listed and classified. One game that seems quite popular is to have pictures of foods cut from magazines and placed in envelopes. As the pictures are shown in flash card manner, the children take turns telling whether the food contains starch, fat, protein or minerals.
- f. Plants can be studied to find which part is used as a food.

Example: (1) List foods which are roots of plants.

(2) List foods which are plant leaves.

(3) List foods which are the seeds of plants

(4) List foods which are plant stems.

6. Agriculture

- a. Find out how many children have home gardens.
- b. Read bulletins on garden planning and plan gardens in relation to the food needs of the family.
- c. Study fruit crops.
- d. Study dairy cattle and the dairy industry from the state and national food production standpoint.
- e. Study how the type of soil where food is grown affects the nutritive value of the food.

Presuming that we have convinced people that they must eat fresh vegetables and fruits we must now teach them to select vegetables, fruits, and fresh meats that spring from soils that have the proper vitamin mineral content. Twenty-five per cent of the Grade A land in the United States is found in Iowa. Children can be taught that crops produced in the Grade A area are superior to those produced on inferior land. This is the place to teach soil conservation. In the past when wasteful practices of cultivation had depleted the soil all one had to do was to move on to new lands. There are no new lands today. What does over-cultivation, long transportation, prolonged storage, super refining do to our foods?

7. Reading

The four major silent reading abilities can be developed in the Nutrition Program.

- a. Locating information is the first silent reading ability and this can be developed by skimming through magazines and basic references for specific materials. The students can learn to use, make and interpret graphs. Tables of contents can be examined for food suggestions and nutrition hints. Give the pupils a list of topics and have them look through the index of references and texts to locate information needed.
- b. Comprehending what is read is the second major silent reading ability.
 - (1) Children can be taught to follow directions in making recipes or plans for a meal.
 - (2) List foods to see if children recognize similar food content.
- c. The third ability is organizing, summarizing, outlining and evaluating what is read. These abilities are so valuable in the study of nutrition. Papers prepared by specialized people can be brought to the attention of the class.
- d. The fourth ability is remembering what is read.
 - (1) Give pupils practice in organizing food materials under main headings.
 - (2) Check to see if they remember the elements that constitute a good meal.
 - (3) Decide what check can be used to evaluate a meal as to whether it is well balanced.
 - (4) Have students make a check test over meal planning and food values.
 - (5) Each pupil could plan a self check of daily and weekly diet. See if the child realizes his own needs.

I. Check to see if the pupils know:

1. What the daily food needs are.
2. The relation of right eating to health and happiness.
3. The importance of eating three regular well-balanced meals daily.
4. The importance of milk, vegetables, fruits, etc., and what they do for the body.
5. Desirable table manners.
6. How to pack a good box lunch.
7. The importance of taking time to relax and enjoy food.

(Repeat the experience you used at the beginning of the study frequently to determine food needs of your pupils, to find out if the food habits of your pupils have improved.)

APPENDIX

Pupils should learn to spell and use intelligently the following words.

A	B	C	D
acid	bacteria	calcium	defects
agility	balanced ration	calories	deficiency
alcohol	beverage	carbohydrates	deforestation
alert	bolting	carbon	
appetite		cereal	
aging		condiments	
		contour	
		scratchers	
		coordination	
		copper	
E	F	G	H
effervesces	fads	green manure	hidden hunger
emotional	fats	gullies	hollow hunger
endurance	fermentation		homogenized
enriched	fertility		humus
ensilage	flavorings		hybrid
erosion	fortified		hydrated
excretion			hydrogen
I	L	M	N
immunization	leaching	magnesium	nervous stability
iron	legumes	maladjusted	night blindness
	lime	malnutrition	nitrogen
	limestone	mental hygiene	non-staple foods
	liquid manure	metabolism	normal
	litmus	menus	nutrition
	loam	minerals	
		mineral salts	
		muck	
O	P	R	S
oleomargarine	pasteurized	relishes	sauce
over cultivation	phosphorus	restored	seasonal
oxygen	pollen	roughage	sodium chloride
	pone		stamina
	posture		staple foods
	potassium		strength
	protective foods		structure
	protein		sub-soil
	putrefaction		sulphur
	poor nutrition		syrup
T	V	W	
tilth	vitamins	water	
topsoil			

HOT LUNCHESES AT SCHOOL

"The expensive machinery of education is wasted when it operates on a mind listless from hunger or befogged by indigestible food."—Mary Swartz Rose, "Feeding of the Family."

Whether it is a lunch brought from home, or a lunch supplemented at school, it should be so planned that it will furnish approximately one-third of the food required by the school child. Providing at least one hot dish in the school lunch stimulates the appetite and improves the general well being of school children to such an extent that it amply repays the efforts involved.

Facilities in the schools will determine the type of hot lunch to be served.

One Hot Lunch Dish

Three general methods of providing one hot lunch dish are suggested:

I. Thermos Bottle. If it is not possible to have food prepared at school, hot food such as soups and beverages may be carried from home in a thermos bottle.

II. Pint Jar. This provides a simple method of giving a greater variety as well as something hot for the child's lunch, and this is very practical. Simple equipment needed at school consists of a heating surface on heating stove, oil stove or electric plate, and a steamer large enough to hold a pint jar for each pupil.

III. Preparing hot dish at school. With very simple equipment one hot dish may be prepared at school. Dishes that are easy to prepare and sure of success should be used.

A schedule for the hot dishes to be served should be sent to the parents well in advance so that food from home may be better planned.

Methods for securing food supplies can be worked out to suit the community.

The Plate Lunch Prepared at School

In planning this meal it is important to consider the needs of the group to be served, the foods obtainable and the equipment, time, personnel, money and cooperation from community which is available.

Suggestions for one week are given to serve as a guide to the teacher for the various types of lunches.

SUGGESTIONS FOR ONE DISH PREPARED AT SCHOOL

(or at home and reheated at school)

	Hot dish prepared at school or sent from home	Lunches carried from home
Monday	Cocoa	Ground meat and relish sandwich Bread and butter sandwich Cabbage wedge Orange Apple sauce cake
Tuesday	Scrambled Eggs	Vegetable salad Buttered peanut bread* Apple Cup cake Milk
Wednesday	Vegetable Soup*	Bread and butter sandwich Peanut butter health sandwich* Tapioca cream pudding $\frac{1}{2}$ pint milk
Thursday	Chicken and Noodles*	Carrot sticks Bread and butter sandwich Fruit sauce Cookie
Friday	Ice Cream*	Dried fruit and nut sandwich Cream cheese on whole wheat bread Celery curls Tomato juice Cookies

*Recipes included.

Peanut Butter Health Sandwich

To sufficient peanut butter for one sandwich add one tablespoon honey and $\frac{1}{4}$ cake compressed yeast. Mix together and spread generously between slices of buttered whole wheat bread. Honey keeps peanut butter from "sticking to roof of mouth" and yeast adds additional B vitamins.

Apple-Carrot Sandwich

Chop raw carrots and apples together. Moisten with salad dressing or cream.

Dried Fruit and Nut Sandwich

$\frac{1}{2}$ cup finely chopped prunes, raisins, etc.

$\frac{1}{4}$ cup finely chopped nut meats

$\frac{1}{8}$ teaspoon salt

5 teaspoons mayonnaise

Few drops lemon juice

Combine all ingredients well and store in covered jar in refrigerator.

Peanut Butter Bread

2 cups enriched bread flour

$\frac{1}{3}$ cup sugar

2 teaspoons baking powder

1 cup milk

1 teaspoon salt

$\frac{3}{4}$ cup peanut butter

1 egg well beaten

Sift together flour, sugar, baking powder, work into this with fork, peanut butter and egg. Add milk. Put into buttered pan and bake 50-60 minutes in moderate oven (350°).

Vegetable Soup

Amounts to serve 25.

1 cup diced carrots

1 cup chopped onion

2 cups diced potatoes

$1\frac{1}{2}$ cups diced celery

1 cup diced turnips

3 quarts meat stock

1 cup tomato juice

2 tablespoons chopped green pepper

$\frac{1}{2}$ cup butter

1 tablespoon salt

Brown all vegetables except potatoes in skillet for 10 minutes. Put in large kettle, add stock and seasoning and simmer 20 minutes. Then add potatoes and tomato juice and cook 10-20 minutes longer.

Chicken and Noodles

Amounts to serve 25.

Chicken—large hen

Noodles— $\frac{3}{4}$ pound ($2\frac{1}{4}$ quarts)

Onion— $\frac{3}{8}$ cup chopped

Salt—1 tablespoon

Celery Salt— $\frac{3}{4}$ tablespoon

Pepper— $\frac{1}{4}$ tablespoon

White sauce (medium)—1 quart

1. Wash, clean and cut up chicken. Add two quarts warm water. Add few slices onion, carrots and parsley and 1 tablepoon salt to water. Cook until tender. Drain off chicken stock.
2. Cook noodles in $1\frac{1}{2}$ quarts of hot chicken stock to which chopped onion, salt, celery salt and pepper have been added.
3. When noodles are tender add cubed chicken and cream sauce. Cook 15-20 minutes.

Vanilla Ice Cream

Milk— $1\frac{1}{4}$ quarts

Sugar— $1\frac{1}{2}$ cups

Salt— $\frac{1}{2}$ teaspoon

Flour— $\frac{3}{8}$ cup

Egg yolks—3

Coffee cream— $\frac{1}{4}$ quart

Vanilla— $1\frac{1}{2}$ tablespoons

Egg whites—3

1. Scald the milk. Mix the sugar, salt and flour together. Add gradually to hot milk, stirring well. Cook in double boiler until thickened (about 25 minutes) and there is no starchy flavor.
2. Beat egg yolks slightly; add part of custard gradually. Combine both mixtures. Cook 3 minutes longer. Remove from heat and cool.
3. Beat egg whites to foamy stage. Add cream, vanilla and egg whites to custard. Pack and freeze. Use 6 parts ice to 1 of salt. When frozen, remove dasher, pack down in container. Repack with ice and salt. Let stand $1\frac{1}{2}$ to 2 hours.

SUGGESTIONS FOR PACKED LUNCHES BROUGHT FROM HOME

(Using thermos or pint jar)

Monday

- *Cocoa
- Cold chicken
- Lettuce on whole wheat sandwich
- Apple
- Oatmeal cookie

Tuesday

- *Scalloped tomatoes (pint jar) or hot tomato juice (thermos)
- Deviled egg
- Carrot sticks
- Whole wheat bread and butter
- Rice pudding with raisins
- Milk

Wednesday

- *Vegetable stew (pint jar) or vegetable soup (thermos)
- Whole wheat bread and butter
- Celery curls
- **Pumpkin custard
- Milk

Thursday

- *Baked beans (pint jar) or bean soup (thermos)
- Carrot and raisin salad
- Nut bread sandwich
- Apple sauce
- Cookie

Friday

- *Cream of vegetable soup**
- Ground meat and vegetable on enriched white bread
- Cream cheese and jelly on whole wheat bread
- Fruit jello
- Cup cake

*Hot dish.

**Recipes included.

Pumpkin Custard

Amounts to serve 25.

- 1 quart pumpkin mashed,
- 1½ quarts milk
- 6 eggs
- 1 cup brown sugar
- ¼ cup molasses
- 1 teaspoon cinnamon
- 1 teaspoon ground cloves
- 1 teaspoon salt

Cook and mash pumpkin or use canned pumpkin. Scald milk in double boiler. Beat eggs slightly and mix with brown sugar, molasses, cinnamon, cloves, salt and pumpkin. Add scalded milk. Turn into greased mold. Set in pan of water and bake in moderate oven (325°) 45-60 minutes. Serve with top milk. Serving—½ cup.

Cream of Vegetable Soup

(Standard Recipe)—Amounts to serve 25.

- 1 cup butter or margarine
- ¾ cup flour
- 4 quarts milk
- 2 cups cooked vegetable pulp
- 4 teaspoons salt

Melt butter and add flour. Stir until smooth and add scalded milk. Cook until desired consistency. Add vegetable pulp and salt. Vegetables commonly used: carrots, peas, spinach, corn, potatoes, asparagus, celery.

PLATE LUNCHES PREPARED AT SCHOOL

Monday

- *Green bean supreme
- Raisin bread and butter.
- Chocolate blanc mange
- Milk

Tuesday

- Baked macaroni and cheese
- Cabbage and peanut salad
- Whole wheat bread and butter
- Stewed prunes
- Milk

Wednesday

- *Chili con carne
- *Fruit and vegetable salad
- Whole wheat bread and butter
- Baked custard
- Jelly roll

Thursday

- *Cream of potato soup
- Raw carrot strips or leafy salad
- Egg salad on whole wheat sandwich
- *Apple brown betty
- Milk

Friday

- *Baked stuffed eggs
- Baked potato
- Peanut butter on whole wheat sandwich
- Carrot sticks
- Mixed fruit cup
- Cookie
- Milk

*Recipes included.

String Bean Supreme

Amounts to serve 25.

- 4 quarts string beans
- 4 pounds hamburger
- 8 small onions
- 4 cans tomato soup or 2 quarts canned tomatoes
- 4 teaspoons butter or other fat
- 1 teaspoon salt

Cook hamburger, onions in fat about five minutes. Add beans, tomatoes and simmer 30 minutes.

Cream of Potato Soup

Amounts to serve 25.

- 2 quarts pared potatoes
- 2 cups chopped celery if desired
- 1½ cups chopped salt pork or 1 cup butter or margarine
- 3½ quarts milk
- ½ cup flour
- ¾ cup finely chopped onion
- 1¾ tablespoons salt
- ½ teaspoon paprika
- ¼ teaspoon parsley

Slice potatoes and cook with celery until soft in water to cover. Mash or put through ricer, keeping liquid. Brown salt pork, add flour to the fat or butter and lightly brown. Add one quart milk and stir until smooth. Combine all ingredients and bring to simmering point. Garnish with paprika or chopped parsley. Serve with crackers.

Chili Con Carne

Amounts to serve 25.

- 4 pounds ground beef
- 2 medium sized mild onions
- ¼ cup lard
- 6 cups water
- 6 cups strained tomatoes
- 8 cups cooked kidney beans
- 2⅔ teaspoons chili powder
- Salt to taste

Melt lard in a deep kettle and add finely chopped onion and meat. Sear until meat is white and separated in small particles. Let simmer a few minutes then add 2 cups hot water, chili powder, beans and tomato juice. Salt to taste. Stir with fork only long enough to mix well and simmer until meat is tender. Just before serving make a paste of flour and remaining cup of water and add. Cook for five minutes. If canned meat is used cook separately for ten minutes and add to mixture just before serving. Serving portion—1 cup.

Fruit-Vegetable Salad

Amounts to serve 25.

- 6 cups grated carrots
- 2 cups sliced apples
- ¾-1 cup nut meats may be used
- 2 cups salad dressing

Salt grated carrots and toss together lightly with apples, nuts and dressing.

Apple Brown Betty

Amounts to serve 25.

- 1 cup butter or margarine
- 1 quart dry bread crumbs
- 3 quarts apples sliced
- 1 cup brown sugar
- $\frac{1}{2}$ teaspoon cinnamon
- $\frac{1}{2}$ teaspoon nutmeg
- $\frac{1}{4}$ cup lemon juice

Melt butter and stir in bread crumbs. Combine sliced apples with brown sugar, cinnamon, nutmeg and lemon juice. Cover bottom of well greased baking dish with $\frac{1}{3}$ of crumb mixture. Spread $\frac{1}{2}$ of apple mixture over the crumbs. Repeat with layer of crumbs, apples, topping with a light layer of crumbs. Cover and bake in a moderate oven (350°F.) for 30-40 minutes or until apples are tender. To brown the crust remove cover ten minutes before end of baking period. Serve warm with lemon sauce or top milk.

Baked Stuffed Eggs

Amounts to serve 25.

- 37 hard cooked eggs
- cut lengthwise, mash yolks with following:
- $1\frac{1}{2}$ teaspoons dry mustard
- 2 teaspoons salt
- 3 teaspoons vinegar
- 6 teaspoons melted butter

Milk, cream or salad dressing to moisten

Stuff whites using all the mixture. Place one layer deep in a baking dish. Cover with white sauce and buttered crumbs. Bake 15 minutes in moderate oven.

White Sauce

Amounts to serve 25.

- 6 cups milk
- $\frac{3}{4}$ cup flour
- 1 cup butter or margarine
- $1\frac{1}{2}$ teaspoons salt

Scald milk, add flour made into paste with some of milk. Stir in butter and salt, cook 5 minutes. Pour over stuffed eggs. Garnish with crisp bacon, parsley or paprika.

OTHER RECIPE SUGGESTIONS

Milk Drinks

Tomato Milk Drink

- 4 cups of milk
- 4 cups of tomato juice
- 1 teaspoon salt or
- $\frac{1}{2}$ teaspoon salt and $\frac{1}{2}$ teaspoon celery salt

Stir the tomato juice into the milk slowly. Add the salt and celery salt if desired. Serve cold. (Add chipped ice cubes if available). Yield: 20 small servings.

Molasses Milk Drink

- 4 cups of milk
- 2 or 3 tablespoons molasses
- Dash of nutmeg

Mix and serve cold. Yield: ten small servings.

Spiced Milk

- 6 cups of milk
- 1 teaspoon cinnamon
- Dash of nutmeg

Mix well and heat. Sweeten with $\frac{1}{4}$ cup honey or syrup if desired. Serve hot or cold. Yield: Makes 15 small servings.

Peanut Butter Milk

- 6 cups of milk
- 3 teaspoons peanut butter
- $\frac{1}{2}$ cup hot water

Dissolve peanut butter in hot water. Stir into milk and serve cold. Yield: Makes 15 small servings.

Soybean Sprouts

Soybeans, like mung beans, can be sprouted in a flower pot, a sink strainer or any container that has holes in it for drainage and can be covered. Be sure the container is large enough for the beans to swell to at least six times their original bulk as they sprout. Soak overnight, and next morning put the beans in the container, cover, and leave them in a warm place. Flood with lukewarm water at least four or five times each day during the sprouting period. In 4 to 6 days the sprouts will be 2 to 3 inches long. Then they should be kept in a cool place, just as any fresh vegetable.

Bean sprouts are a good addition to raw salads or to omelet, souffle, meat stew, or fricassee. The sprouts are very tender and to hold their crispness should not be added to hot mixtures until a few minutes before serving. They are also often used with soybean curd and vegetables in chop suey.

SANDWICH SUGGESTIONS

(From "Lunchtime on the Home Front." National Dairy Council)

Bread

Use different kinds of breads, either whole grain or enriched. Rye, whole wheat, raisin, Boston brown bread are only a few suggestions. Use fresh bread. Cut sandwiches in halves or quarters for ease in handling.

Butter

Spread softened butter evenly right out to the edges of the slices of bread. This helps keep the filling from soaking into the bread and improves the flavor. If the butter has not been softened by leaving it at room temperature, cream it with a fork, spoon, or flexible knife.

Fillings

Keep sandwich fillings moist by adding salad dressing, catsup, or other moist relish. Do not use bulky slices or "chunks" of food; slice thin, chop, or grind. Try these popular fillings:

Cottage or cream cheese with: one or more chopped vegetables (pimiento, green pepper, parsley, radishes, chives, raw carrots); or one or more chopped dried fruits (prunes, dates, raisins, figs or apricots); or bits of crisp bacon; or jam; or honey.

Slice of American cheese and chopped sweet pickle.

Cooked ground meat or fish and chopped raw cabbage with salad dressing.

Sliced meat (meat loaf, pot roast, baked heart) and salad dressing or relish.

Chopped raw carrots and raisins or nuts with salad dressing.

Ground cooked liver and bits of crisp bacon with salad dressing or relish.

Chopped hard-cooked eggs with salad dressing and chopped crisp bacon, celery, lettuce, tomato, or olives.

Mashed baked beans with catsup or tomato sauce.

Peanut butter (moistened with milk) with chopped raw crisp vegetable or chopped crisp bacon.

Accompaniments

Raw vegetables—such as celery sticks, lettuce, carrot sticks, pieces of raw cauliflower, turnip sticks—wrapped in waxed paper to keep them crisp, give a welcome touch of freshness and a nice variation in texture.

Sandwich Bread

Oatmeal Bread

2 cups oatmeal, uncooked	1 cup cold milk
$\frac{1}{2}$ cup molasses	1 cake compressed yeast or
1 teaspoon salt	$\frac{1}{2}$ cake dry* dissolved in
1 tablespoon shortening	$\frac{1}{2}$ cup lukewarm water
1 cup boiling hot milk	5 cups flour

Measure oatmeal, molasses, salt and shortening into bowl. Add boiling hot milk and let stand one hour. Beat in the cold milk, dissolved yeast and flour. Let rise until double in bulk. Knead well. Turn into greased bread pans, let rise again until double in bulk. Bake 15 minutes in a hot oven (425°F.), then 45 minutes in a moderate oven (375°F.). Yield: 2 large loaves.

*If dry yeast is used, prepare this dough at night. Let rise in a medium warm place over night and until double in bulk in the morning. From this point proceed as above.

Salads

A salad can be carried in the lunch box if it is put into a glass jar with tight-fitting cover. Carrot strips, celery and other palatable raw vegetables go nicely with sandwiches because of their crispness.

Kidney Bean Salad

2 $\frac{1}{4}$ cups cooked kidney beans or one No. 2 can	$\frac{1}{2}$ cup chopped celery
$\frac{3}{4}$ cup chopped sweet pickle	$\frac{1}{2}$ cup cream
2 sliced hard-boiled eggs	$\frac{1}{4}$ cup vinegar drained from pickles

Combine beans, pickle, eggs and celery lightly with a fork. Mix cream and vinegar and add to salad. Chill thoroughly. Yield: 6 servings.

Sour Cream Dressing

1 cup sour or sweet cream (or milk)	3 tablespoons vinegar
	1 teaspoon salt

Add a little sugar if desired

Add vinegar slowly to cream or milk and stir until just blended. Add salt. Mix with ground or finely chopped raw vegetables for a salad or for sandwich spread.

Potato Salad

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|---------------------------------|----------------------------------|
| 3 cups sliced or diced potatoes | Cooked salad dressing to moisten |
| 1½ tablespoons chopped onions | 3 hard-cooked eggs |
| ¾ cup chopped cucumber | |

The potatoes should be boiled and well seasoned in cooking. Dice in ½ inch cubes. Mix lightly with onion, cucumber and salad dressing. Let stand one hour in a cold place. When ready to serve, garnish with hard cooked eggs cut in edges. Yield: 6 servings. Cucumbers may be omitted.

Desserts

A simple tasty dessert is something to look forward to in lunch at home or in school. Cakes and cookies should be wrapped in waxed paper if carried to school. Puddings and custards can be carried in covered glasses.

Baked Custard

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| 2 eggs | 3 cups milk |
| ¼ teaspoon salt | Sugar for bottom of custard cups |
| ½ cup sugar | |

Spread the sugar evenly over bottom of custard cups or jelly glasses. Set in moderate oven (350°F.) to melt sugar. (Let cool slightly if glass dishes are used.) Beat eggs, add salt and sugar, continue beating until thoroughly blended, then add milk. Pour over melted sugar. Set baking dishes in pan of hot water. Return to oven and bake in a moderate oven (350°F.) until custard is set. Yield: 6 servings.

Bread Pudding

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|--|-----------------|
| 3 slices enriched bread, buttered and cut in cubes | ¼ teaspoon salt |
| | 3 cups milk |
| 2 eggs | Nutmeg |
| ½ cup sugar | |

Place bread cubes in buttered custard cups or jelly glasses. Beat eggs, add sugar and salt and mix well. Then add milk. Pour custard mixture over bread cubes. Sprinkle top with nutmeg. Bake in a moderate oven (350°F.) until set, about 25 minutes. Yield: 6 servings.

Scotch Toffee

2 cups rolled oats	$\frac{1}{2}$ teaspoon salt
$\frac{1}{3}$ cup butter or fortified margarine	$1\frac{1}{2}$ teaspoons vanilla
$\frac{1}{2}$ cup brown sugar	$\frac{1}{2}$ cup semi-sweet chocolate
$\frac{1}{4}$ cup corn syrup or honey	4 tablespoons finely chopped nuts

Mix the salt with the rolled oats. Stir in the melted fat, mix until each rolled oat is coated. Stir in the brown sugar. Stir in the syrup and vanilla. Mix well. Press into a well-greased eight-inch pan. Use your finger tips and press the mixture down, smooth. Bake in a hot oven, (425°F.) for 12 to 15 minutes or until a golden brown. Mixture will bubble, so don't be alarmed. Remove from oven, place pan on a cake rack. Quickly run sharp knife around the edge of the mixture. Let mixture cool. When cool turn pan over and strike firmly against table top. Candy will loosen and fall out. Melt the chocolate and spread over the top of the smooth side, which was next to the pan. Sprinkle with the finely chopped nuts, pressing them into the chocolate with finger tips. Chill in the refrigerator until the chocolate hardens. Cut with a very sharp knife. Or if you wish, break into jagged pieces. Yield: 36 pieces or about one pound.

Suggestions: You may use quick or regular style oats, just as they come from the box.

Use dark corn syrup and save the light colored kind for frostings. Honey will give you a slightly different flavor.

This candy sort of mellows on standing, if you can keep it!

If the temperature soars the chocolates will soften up, so just slip the candy back into the refrigerator:

REFERENCES AND ILLUSTRATIVE MATERIALS

Bureau of Health Education, Department of Health, New York, N. Y.
Food Joins the Colors. Free.

Bureau of Publications, Teachers' College, Columbia University, 525 W.
120th St., New York, N. Y.

1. Rose, M. S., and Bosely, Bertlyn. Feeding Our Teeth.
A nutrition unit for the third and fourth grades. Includes ten one-half hour lessons and suggestions for a play, "Food for Teeth on Parade." 1940. 30 cents.
2. Rose, M. S., and Bosely, Bertlyn. Our Cereals.
A nutrition unit for fifth and sixth grades. Twelve lessons of thirty or forty minutes each. Includes experiences to help children understand the differences in common cereal foods. 1940. 35 cents.
3. Rose, M. S., and Bosely, Bertlyn. Vegetables to Help Us Grow.
A nutrition unit for first, second, and third grades. Ten lessons outlined in detail concerning good food habits, including the preparation of raw vegetable dishes. 1941. 35 cents.

California Fruit Growers' Exchange, Education Division, Sunkist Bldg.,
Los Angeles, California.

1. Sunkist Recipe Booklet (Teacher). Free.
2. Sets of Sunkist Bulletins (Students). Free.
Well illustrated with pictures and stress the use of citrus fruits but include meal planning to secure the daily food requirements.

Cleanliness Institute, 381 Fourth Avenue, New York, N. Y.
The Tale of Soap and Water. 1937. A story for boys and girls of grades six, seven, eight, and nine. Includes a booklet for teachers with suggestions for using. Free.

Evaporated Milk Association, 307 N. Michigan, Chicago, Illinois.

1. Planning Lunches for the School Child. Free.
2. The White Rat from Hawkins Hall. 1942. Free. This story would be of interest to children of all ages in the elementary grades. It would be especially helpful if rat-feeding experiments are to be carried out in the school.
3. The Lunch Box. Free.
4. The Airplane Rescue. Free. A short story easily produced by teachers and pupils.
5. The Adventures of Eva, Pora and Ted. Free. A twelve-page comic strip for the lower grades.

Iowa State Department of Health, Des Moines 19, Iowa.

1. Posters. Free.
"A Goofy Lunch Pulls Your Punch"
"There's Fightamins in Fruits and Vegetables"

2. Pamphlets (For Teacher's Reference). Free.
 - "The Healthy, Well Nourished Child"
 - "Your School Child's Health"
 - "The Noon Meal At School"
 - "Your Children's Food and The Family Pocketbook"
 - "The Well Filled Dinner Pail"

3. Nutrition films (free) return shipping charges are to be paid by school.

"Lunch For Johnny"

18 min. sound film, describes methods of providing hot school lunches.

"This Too Is Sabotage"

25 min. sound film, dramatizes essential food groups with interesting story.

"Foods and Nutrition"

11 min. sound film, shows normal dietary requirements of foods and metabolism of carbohydrates, fats and proteins.

Lily Tulip Cup Corporation, 122 East 42nd Street, New York City, N. Y.
 Vita-Min Go (game) single copies 10 cents; 15 copies \$1.00. 100-250 copies at rate of 5 cents each.

Little, Brown and Company, Boston, Massachusetts.

Stone, Harriet: The Meaning of Nutrition. 1943. 44 cents.

**National Dairy Council, 111 North Canal Street, Chicago, Illinois.

1. Animals That Give Milk. Booklet. 10 cents.
2. Child Life Around the World. Portfolio. 30 cents.
3. Check Your Lunch Today. 3 cents.
4. Food Model. 94 colored cardboard models. \$1.00.
 (These can be borrowed from your county Farm Bureau Office or from the Home Demonstration Agent in your county.)
5. A Happy Day. 8 cents.
 A health booklet for primary children to read. Colorful and well-illustrated. Includes teacher suggestions for using. Free.
6. Is It True. A health book which points out the good health enjoyed by Animals. 7 cents.
7. Lunch at Home and at School. 8 cents.
8. Lunch Time on the Home Front. 6 cents.
9. Mealtime Melodies. 12 cents.
10. Milk Around the World. Booklet. 8 cents.
11. Milk Does More For You. 6 cents.
12. Milk From Farm to Family. Booklet. 12 cents.
13. My Growth Record. Height-Weight Record. 3 cents.
14. Out Of The Postman's Bag. The booklet contains a series of letters from school children telling about school activities in various parts of the country. 10 cents.

15. Posters.

- Food Is Precious. 15 cents.
Choose Your Lunch Wisely. 10 cents.
Farm to Family—6 posters. 40 cents.
Food and Care. 20 cents.
A Guide to Good Eating. 20 cents.
A Good Breakfast
A Good Dinner } Child Feeding Posters. 45 cents.
A Good Supper }
A Happy Day. 20 cents.
Let's Have Breakfast. 10 cents.
Milk Made the Difference. 11 cents.
Ventures Voyages Vitamins. 15 cents.

16. Watch Them Grow. 10 cents.
17. We All Like Milk. Portfolio. 30 cents.
18. Weight Tag. 3 cents.
19. Your Lunch Box. 2 cents.

Office of Distribution, W. F. A., 208 Old Colony Building, Des Moines, Iowa.

- "Lick The Platter Clean." Poster. Free.
"School Lunch Menus." Mimeographed bulletin containing menus. Free.

Office of Information, U. S. D. A., Washington, D. C.

1. Food for Children. Farmers' Bulletin No. 1674. 22 pp. 1939. 5 cents.
The relation of food to good nutrition, foods that meet body needs, and suggestions for planning the child's meals are discussed. Suggestions for menus and six pages of recipes are included.
2. Good Food Habits for Children. Leaflet No. 42. 8 pp. 1929. 5 cents.
Suggestions for parents on ways to lead the child to develop good food habits.
3. Food Conservation Education in the Elementary School Program. Free.
4. Cut Food Waste. Leaflet. Free.
5. Handbook for Workers in School-Lunch Programs with Special References to Volunteer Service. 1943. Handbook for Workers in School-Lunch Programs. Free.
- *6. Soybeans for the Table. Leaflet No. 166. 1938. 5 cents.
- *7. School Lunch Recipes Miscellaneous Publication No. 537. 10 cents.

State Department of Education, Capital Building, Topeka, Kansas.

Teachers' Guide to the Kansas Elementary School Program of Students.

State Nutrition Committee, University of Illinois, 206 Woman's Building, Urbana, Illinois.

A Suggestive Guide for Teaching Nutrition in Illinois Elementary Schools.

The Civilian Defense Health and Nutrition Council, care of City Nutritionist, 925 Main Street, Bridgeport 3, Connecticut.

Pack A Lunch A Man Can Work On. Bulletin. Free.

Visual Instruction Service, Iowa State College, Ames, Iowa.
Nutrition films.

***"Skinny and Husky"

8 min. animated cartoon, showing importance of milk.

***"America Learns to Fly"

10 min. interesting story showing importance of eating properly in order to live happily and be healthy.

***"More Life in Living"

21 min. splendid film showing part which dairy products play in our lives.

***"A Guide to Good Eating"

***"Food Magic"

U. S. Office of Education, Federal Security Agency, Washington, D. C.

*1. Food Time A Good Time At School. Leaflet No. 4. 5 cents.

*2. School Lunch Management, Nutrition Education Series. Pamphlet No. 3. 10 cents.

*3. Making School Lunches, Educational Nutrition Education Series. Pamphlet No. 2. 10 cents.

*4. Nutrition Education in the Elementary School. 1943. 15 cents.

War Food Administration, Office of Distribution, Washington, D. C.

1. Menu Planning Guide for School Lunches

2. The Conservation of Food

3. The Food We Live By

4. National Wartime Nutrition Guide

5. School Lunch Recipes

Young America Magazine, 32 East 57th Street, New York, N. Y.

How To Teach Nutrition To Young Americans. \$1.00. For Health Education and Science Classes in Junior High School.

*For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

**Selected set of materials available each fall to the Iowa Elementary Teachers from the National Dairy Council through the courtesy of the Iowa Dairy Commission.

***Can be obtained from Visual Aids Department, Iowa State College, Ames, Iowa, by paying transportation cost.

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