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IDAHO Agricultural
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BULLETIN 237
May 1955

To Idaho 4-H Club Girls

CONGRATULATIONS to you on joining a 4-H Foods Club. This is an opportunity for you to make a real contribution to our nation by helping your family and community.

Proper handling and wise use of foods are essentials in maintaining good health.

Maintain Health

A 4-H food project gives you the privilege of learning how to choose foods and how to cook food to get the most from it. It is necessary that everybody stay strong and well. Good food means good health.

Conserve Time and Energy

A 4-H Foods Club offers you the opportunity to help prepare meals and to assist with kitchen duties. This will relieve mother of some of the burden of her daily work and give her some well-earned leisure.

Preserve Food

A 4-H Foods Club provides the means for you to learn how to care for food. Avoid waste of any food by handling and storing it carefully, by preparing it and cooking it properly, and by serving it so attractively no one can resist it.

4-H Foods Project

DIVISION 2

The Plan of the Foods Project

Purpose

THE purpose of this project is to lend greater importance to the problems of good food in relation to health. Good food and good food habits mean good health.

More specifically the goals are:

1. To learn to select foods properly every day.
2. To learn to prepare simple breakfast dishes.
3. To learn to bake biscuits and muffins.
4. To relieve mother of part of her work.
5. To learn to wash dishes, care for food and clean the kitchen quickly and thoroughly.
6. To learn to plan, prepare and serve breakfasts to the family.
7. To learn to pack simple lunches.
8. To learn simple ways to improve kitchen storage space.
9. To create an interest in the work of the home.

Club Requirements

Club members should:

1. Be bona fide 4-H Club members.
2. Attend club meetings.
3. Keep and submit record of work and story.
4. Make an exhibit.
5. Give one or more demonstrations.
6. Study judging of products made.

Requirements for Completion of Project

1. Prepare hot cereal three times.
2. Cook eggs five times in at least two different ways.
3. Make biscuits three times with one variation.
4. Make muffins three times with one variation.
5. Make two kinds of sandwiches.
6. Serve breakfast at least once at home.
7. Pack a lunch or serve supper to family.
8. Take part in at least one demonstration at club.
9. Keep records and write story of project.
10. Plan at least two breakfasts besides the one served.
11. Practice correct table setting and table courtesies.
12. Exhibit at local or county fair.
13. Make a spice shelf, drawer division, knife rack or some other "gadget" to improve storage space in your kitchen (optional).

Requirements for Exhibit

1. Record book and story completed.
2. Poster showing a good breakfast for a growing girl (using Idaho foods). Size 8½ by 11 inches.
3. Four plain muffins using whole wheat or enriched flour.

Suggested plan of work for the club:

- | | |
|-------------------------|---------------------------|
| 1. Organization meeting | 7. Club breakfast |
| 2. Cereals | 8. A place for everything |
| 3. Biscuits | 9. Sandwiches |
| 4. Muffins | 10. Packing lunches |
| 5. Eggs | 11. Picnic |
| 6. Planning breakfasts | 12. Achievement day |

Points to Remember When Cooking

1. Review table of abbreviations given in Junior Cookery.
2. Review other points outlined in Junior Cookery.
3. Be sure the oven is adjusted so that the temperature will be right when you are ready to use it.
4. Read the recipes carefully and follow directions accurately.
5. Review oven temperatures.

SLOW	MODERATE	HOT	VERY HOT
250-350° F)	(350-400° F)	(400-450° F)	(450-550° F)
Custards	Bread	Biscuits	Pastry
Meringues	Cookies	Yeast Rolls	
	Sponge Cake	Popovers	
		Angel Cake Plain Cake	

Terms Used for Combining Ingredients

Stirring—used for mixing dry ingredients with liquid; consists of a circular motion.

Beating—used to smooth mixtures after stirring and also to incorporate air; consists of a vigorous motion from underneath to top.

Folding—used for mixing beaten eggs with liquid or batter; consists of lifting part of the mixture from the bottom through the rest of the mixture to the top, to blend ingredients without releasing air bubbles.

Creaming—used to soften shortening by beating at room temperature.

Cutting in—used to combine flour and shortening; consists of blending with fingertips, two knives, fork or pastry blender until crumbly and fine in appearance.

What Foods Do for You

Growing foods for a strong body

Milk and foods made from milk, eggs, poultry, meat, and fish are called protein foods. Proteins build strong muscles and tissues. These together with fruits and vegetables contain the minerals, calcium, phosphorus and iron needed for strong bones, teeth and blood.

Going foods for work and play

Breads and cereals, starchy foods, sugar and simple desserts, cream, butter and lard supply energy.



Green and
yellow vegetables



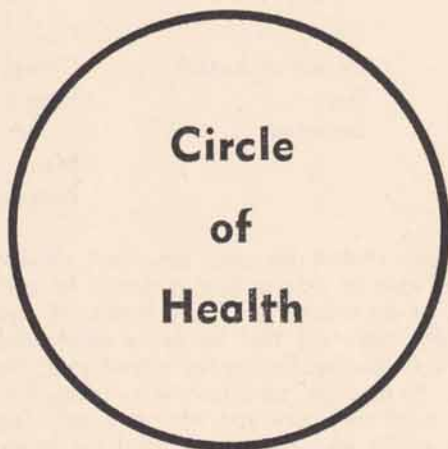
Butter and
other fats



Oranges, Tomatoes
Grapefruit



Bread, flour
and cereals



Potatoes and other
vegetables and fruits



Meat Poultry
Fish
Eggs Dried Beans
and peas



Milk and
milk products

Regulating foods for health and pep

Fruits and vegetables, milk, eggs and liver are the best sources of vitamins and minerals.

In your three meals a day you need to choose some food from each group making up this CIRCLE OF HEALTH to keep you well fed. The wisest plan is to distribute the day's food over three meals, each eaten at a regular time. Experts agree that breakfast should provide one-fourth to one-third of your food for the day. Make breakfast count toward these seven. In addition growing children need 400 units of vitamin D a day. Sunshine is a source but no food provides this vitamin adequately so cod liver oil or some concentrate may be necessary through the winter months.

It's Breakfast Time

There are three types of breakfast—light, medium and heavy. Here are three patterns:

Light	Medium	Heavy
Fruit	Fruit	Fruit
Cereal or bread	Cereal or bread	Cereal and bread
Beverage	Eggs	Eggs and bacon
	Beverage	or
		Meat
		Beverage

Which pattern you choose for your breakfast depends on your activities. Many of you walk or ride a long distance to school. Some of you have many chores to do before you leave home. If one is to eat a light lunch, it is especially important that he eat a substantial breakfast. Many young people eat light lunches during the school year; therefore, they need hearty breakfasts. A medium breakfast is suitable for a growing youth who does average work and play and who eats an adequate lunch. Light breakfasts are for adults who need little food for body building and for those who do light work.

Whether you select the light, medium or heavy breakfast, fruit from Group II of the CIRCLE OF HEALTH will supply vitamins A and C, minerals and roughage.






The cereal or bread from Group VI is needed for energy, iron, and the B-vitamins. If the cereal or bread is enriched one-third of the amount from Group VI is promised for the day.

There will be butter (Group VII) on toast or rolls to supply fat and add vitamin A.

Eggs or meat in the heavier breakfasts satisfy Group V, which provides

proteins for body building. There may be milk on the cereal and in the beverage as well. The milk (Group VI) will give 1 or 1½ cups of the quart needed each day. It is difficult to get enough calcium through the day unless each meal provides its share. The same is true of riboflavin, a vitamin needed for good digestion, healthy skin and clear vision; for milk is the best source of both. Milk will also supply proteins and Vitamin A.

Complete Breakfast for a Girl

Orange juice  - Egg 
 Enriched toast & jam 
 Cereal (1 oz)  - Milk 

Fruit for Breakfast

Some fruit should be served daily. Breakfast is the logical place for one of these servings. When fresh fruit cannot be secured, canned or dried fruits may be used. In Junior Cookery you learned to prepare fruits in many ways that would be suitable for breakfasts. If the fruit chosen is not rich in vitamin C, an extra serving of raw vegetable or fruit should be included at some other meal during the day.

Remember that fruit is important because it contains:

1. Vitamin C—especially strawberries, cantaloupes, tomatoes.
2. Vitamin A—especially apricots and yellow peaches.
3. Vitamin B—especially prunes.
4. Iron—especially dried apricots, dried peaches.
5. Fruit sugars.
6. Woody fibers which help prevent constipation.
7. Flavors which stimulate appetite.
8. Flavor and color which add to the attractiveness of a meal.

Cereal for Breakfast

Cereals may be served often. Cereals, like bread, are economical sources of energy and protein. Some cereals are contained in the germ and outer bran coat. Enriched or restored cereals are those which have thiamin, niacin, sometimes riboflavin, and iron added. Read the package labels to know how much has been added to each serving. In general there is little loss in vitamins or minerals in cooked cereals due to the fact that the water is not discarded.

Cooked cereal tastes best when cooked slowly for a long time. The proportion of water and salt used in cooking will depend upon the type of cereal used. Cook according to the chart below.

Add the cereal slowly to rapidly boiling salted water. Use a fork to stir the cereal until slightly thickened; cook over direct heat about 5 minutes. Place over hot water in a double boiler to continue cooking without danger of burning. Add more water if a thinner cereal is preferred.

Table I.—Proportion and time for cooking cereal

CEREAL	METHOD OF COOKING			
	Double Boiler		Direct Heat	
	Cup of water for each cup of cereal	Time of cooking	Cup of water for each cup of cereal	Time of cooking
Unbroken:				
Wheat.....	4	4 hrs.	4	3 hrs.
Rice.....	4	1 hr.	8	20-30 mins.
Cracked:				
Wheat.....	4	2 hrs.	4	45 mins.
Hominy grits (not quick cooking).....	4	2 to 3 hrs.	4	1½ to 2 hrs.
Steel cut oats.....	4	2½ hrs.		
Flaked or rolled:				
Oats (not quick cooking).....	2	45 mins.	2	20 mins.
Granular:				
Corn.....	4 to 5	45 mins. to 1 hr.	6	30-45 mins.
Wheat.....	5 to 6	45 mins.	5	20-30 mins.

Note: For quick cooking cereals follow directions on the package.

Ways of serving cereals may be varied so that the family will not tire of them. Some tasty variations are:

- Add fruit or serve with fruits.
- Add raisins or chopped dates during last 10 minutes of cooking.
- Serve a baked apple in center of bowl of cereal.
- Serve cooked, dried fruits with cereal.
- Cook cereal in milk instead of water.
- Serve with brown sugar instead of white.

Cooked cereals should be:

- Soft but not pasty.
- Thick enough to hold shape when first poured.
- Free from lumps.
- Well developed flavor with no starchy taste.
- Well seasoned with salt.

Quick Breads for Breakfast

Quick breads get their name because they are mixed fast and are baked fast. They are made light by a leavening agent such as baking powder or sour milk and soda. There are only two basic methods for mixing all quick breads—the "muffin" method and the "biscuit" method.

Quick breads are especially popular for breakfast but you may also want to serve them for lunch or supper when you learn to make tempting ones.

Popovers, hotcakes, waffles, biscuits, and muffins belong in this group. This project will give you practice in the muffin method and will give you experience in handling doughs by the "biscuit method."

You are asked to use enriched flour or whole wheat to guarantee the full food value. Enriched flour is white flour to which the B vitamins (thiamin, niacin, riboflavin) and iron have been added. Whole wheat contains these food values in the outer bran coatings. Because these coatings are removed in milling white flour, these healthful food values are being re-added to insure the original health values.

Muffins

2 c. flour
1 T. double acting baking
powder
 $\frac{1}{2}$ t. salt

2 T. sugar
1 egg
1 c. milk
2-4 T. shortening

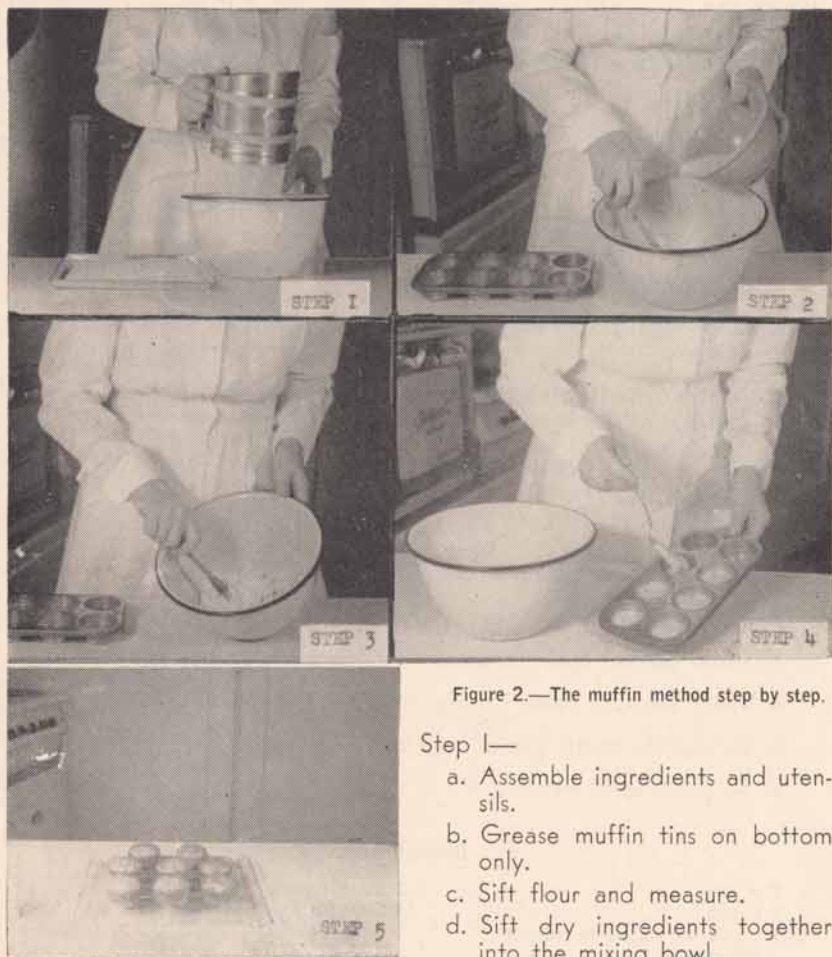


Figure 2.—The muffin method step by step.

Step 1—

- a. Assemble ingredients and utensils.
- b. Grease muffin tins on bottom only.
- c. Sift flour and measure.
- d. Sift dry ingredients together into the mixing bowl.

- e. Cut shortening into the dry ingredients with a fork so thoroughly that it is hardly noticeable.

Step II—

- a. Beat egg slightly and add milk.

Step III—

- a. Add the milk mixture to the dry ingredients all at one time.
b. Stir just enough to moisten. Do not beat out lumps.

Step IV—

- a. Fill muffin tins two-thirds full. Fill empty ones with water.

Step V—

- a. Bake in a moderately hot oven (375-400°) for 20-25 min.

Note: The conventional method is to add the melted shortening with the milk, eggs (III a). However, cutting the shortening into the dry ingredients is excellent for beginners and eliminates one utensil (I e).

Variations are:

1. Substitute 1 cup of whole wheat or graham flour for 1 cup of the white flour in the standard recipe.
2. Substitute 1 cup of cornmeal for 1 cup of white flour.
3. Add 2 T. broken bits of crisp bacon to the mixture. Use bacon drippings for the shortening.
4. Add $\frac{1}{2}$ cup cooked chopped dried prunes or other fruit to the mixture.
5. Add $\frac{1}{2}$ cup grated cheese to dry ingredients. Sprinkle tops with paprika.
6. Add $\frac{1}{2}$ cup nuts to the dry ingredients. The sugar may be increased by 2 T.

Muffins should:

1. Have rounded, pebbled tops.
2. Have symmetrical shape.
3. Have golden brown crust with creamy white interior.
4. Have medium sized, uniform holes—no tunnels.
5. Be slightly moist, tender and light.
6. Be pleasing in flavor.

Biscuits

2 c. flour
1 t. salt
 $\frac{2}{3}$ c. milk (or enough to make a soft dough)

2 T. shortening
4 t. single acting baking powder or
1 T. double acting baking powder

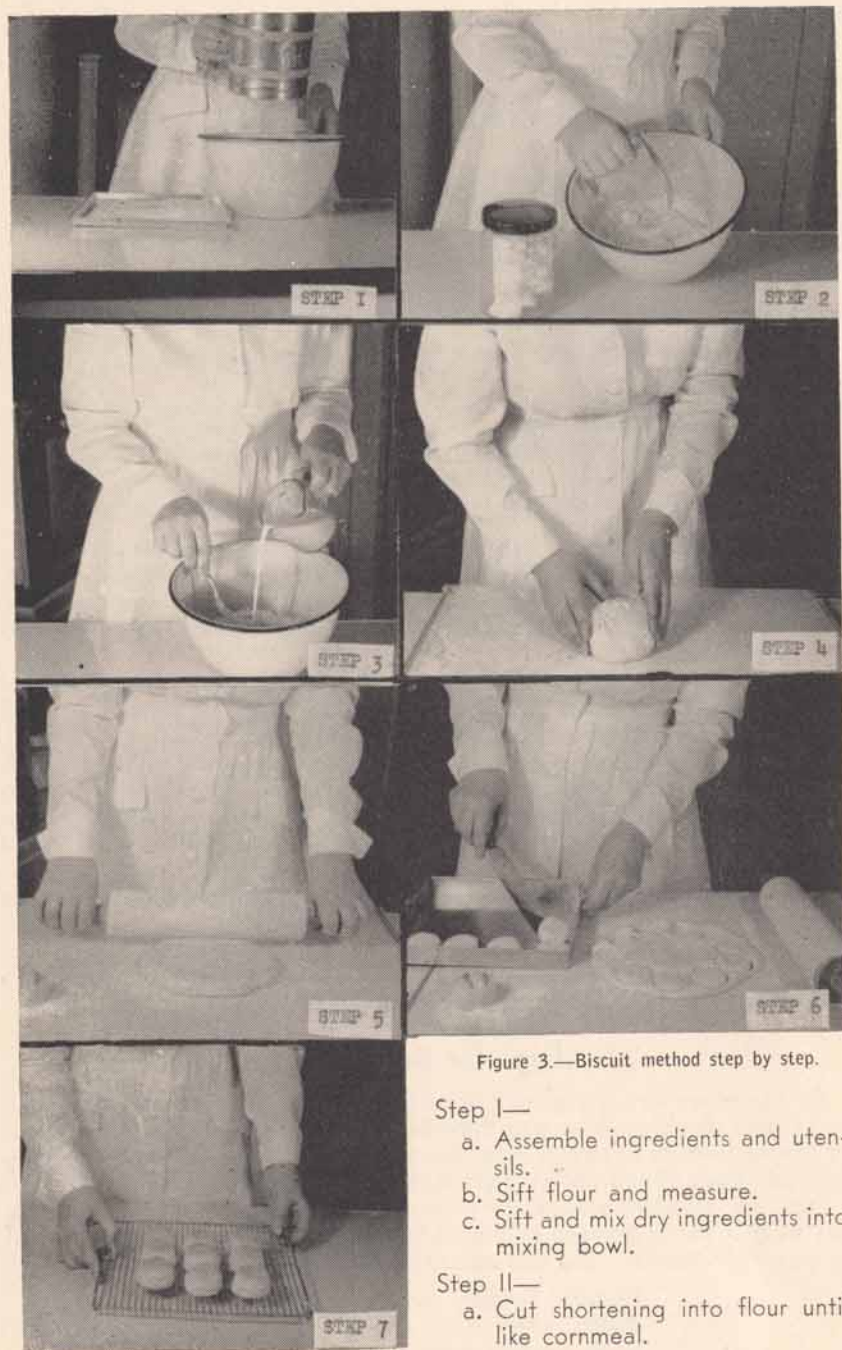


Figure 3.—Biscuit method step by step.

Step I—

- a. Assemble ingredients and utensils.
- b. Sift flour and measure.
- c. Sift and mix dry ingredients into mixing bowl.

Step II—

- a. Cut shortening into flour until like cornmeal.

Step III—

- a. Add enough milk to make a soft dough that can be handled.

Step IV—

- a. Turn onto lightly floured board and knead gently $\frac{1}{2}$ minute.

Step V—

- a. Roll or pat to $\frac{1}{2}$ inch thickness.

Step VI—

- a. Cut biscuits with lightly floured cutter.
- b. Place on cookie sheet or in shallow baking pan to bake.

Step VII—

- a. Bake in hot oven (450 to 475°) for 10 to 15 minutes.

Biscuits Should Have:

1. Fairly smooth, level tops.
2. Golden brown crust, crisp and tender.
3. Creamy white, flaky, light interior.
4. Pleasing flavor, free from tastes of fat or leavening.

Be a Quick-Change Artist: Vary the recipe in the following ways:

1. **Cinnamon Rolls**—Roll dough to $\frac{1}{2}$ inch thickness in a rectangular shape. Brush with melted shortening; sprinkle with brown sugar and cinnamon. Roll up like jelly roll. Cut in $\frac{1}{2}$ slices. Place rolls cut side in greased pan. Bake.
2. **Dumplings**—Use $\frac{3}{4}$ c. milk or enough to make a soft dough. Do not knead. Drop on top of slowly boiling meat stock or stew. Steam 12 minutes with a lid on. Cook 5 minutes more with lid off.
3. **Coffee Cake**—Increase sugar to $\frac{1}{4}$ c. and add an egg to the milk. Spread mixture on shallow, greased baking pan. Sprinkle with topping made by creaming together $\frac{1}{4}$ c. butter, $\frac{1}{4}$ c. brown sugar, 1 t. cinnamon, 1 c. cereal flakes or $\frac{1}{2}$ c. nuts. Bake at 450° for 15 to 20 minutes.
4. **Shortcake**—Add $\frac{1}{4}$ c. sugar and increase shortening to 5 to 6 T. Mix as for biscuits. Cut in large rounds. Bake as usual. Serve with fresh fruit.
5. **Cheese Biscuits**—Add $\frac{1}{2}$ c. grated cheese to the dry ingredients.
6. **Orange Biscuits**—Use orange juice for liquid.

Eggs for Breakfast

An egg every day is a good rule to follow when eggs are plentiful. Children always should have an egg three or four times a week. Breakfast seems the natural time to serve that egg. Eggs, like milk, are easily and completely digested. Eggs should be an important part of anyone's meal.

Eggs are excellent sources of high quality protein. A single egg supplies from 3 to 16 percent of the daily requirements of all except one of the essential vitamins. The one exception is vitamin C.

Humpty Dumpty good old egg
 Boosts nutrition up a peg
 With vitamins from A to E
 Except the vitamin called C.

The egg yolk is one of the richest sources of iron.

Since high temperatures toughen eggs, all food containing eggs should be cooked at low temperatures. If palatable, easily digested product is to be obtained, the temperature must be kept moderately low. They will be more evenly cooked and the white will be more tender.

Eggs In the Shell

Cover eggs with boiling water. Pull to back of stove where water cannot boil and let stand 5 to 8 minutes (soft), 9 to 12 minutes (medium) and 30 to 40 minutes (hard). Serve hot in the shell or plunge into cold water, then remove the shell.

Baked Eggs

Break the egg into shallow greased baking dish or individual baking dish. Add 1 T. whole milk or cream to each egg and dot with butter. Season with salt and pepper. Set baking dish in pan of warm water. Bake in a moderate oven (325°) until as firm as desired.

Poached Eggs

Break eggs into a saucer and slip into hot, salted water—enough to cover the eggs—in a shallow greased pan. Bring to simmering, remove from heat and cover. Let stand about 5 mins. or until eggs are as firm as you want them. Dip hot water over eggs to cook top. Remove eggs carefully with a skimmer and season with salt and pepper to taste. (Adding 1 T. vinegar to the water will keep the white from spreading.)

Scrambled Eggs

For each egg, use 1 T. of milk, and beat them together very slightly. Season with salt and pepper. Pour the mixture into a heated frying pan containing melted fat, and stir constantly over low heat until it thickens and is flaky. Serve a once.

Table 2.—Standard Products

	WHITE	YOLK	GENERAL
Poached eggs	Shiny Rounded Tender	Whole Covered with white	Uniformly coagulated Well seasoned
Soft cooked eggs	Firm enough to hold shape Tender	Liquid	
Hard cooked eggs	Soft luster Thick	No green coating Mealy	
Fried eggs	Rounded outline No tough brown edge	Covered with white Uniformly coagulated	Not greasy Tender Well seasoned

Planning a Club Breakfast

You are now ready to plan a breakfast to serve at club. Plan to have the breakfast include a fair share of the foods needed for the day. The meal will probably be more successful if you choose foods which you have prepared in 4-H work. Use home grown foods whenever possible. Plan foods suitable to the season of the year. This will help to keep the cost low. Plan a pleasing combination of flavors and colors. Suggested menus for the club breakfast are:

Tomato juice	Stewed prunes with
Cereal flakes	Orange sections
Scrambled eggs	Bacon muffins
Coffee and/or milk	Whole grain cereal with brown sugar
	Biscuits Honey Butter
	Coffee and/or milk
Baked apple with cream of wheat	
Scrambled eggs	Wheat cereal with dried apricots
Whole wheat toast	Baked eggs in bacon ring
Hot cocoa	Toast Milk

Serving Breakfast

You learned how to set a table in the Junior Cookery project. Those rules will help you in arranging the table neatly. A few flowers, a bowl of fruit, or an arrangement of leaves make a cheery centerpiece. The tablecloth or placemats and dishes may be colorful and gay.

Breakfast is a simple meal. The cream, sugar, salt and pepper, butter and jelly and the first course, which may be fruit and cereal, are on the table when the family is seated. Fill the water glasses three-fourths full. Place the hot foods and serving spoons near the person responsible for serving or passing them. When food is passed, the spoon will be placed on the dish. This family type of service is usually used for breakfast.

After the fruit and cereal are eaten, the hot foods are brought to the table on hot dishes. Arrange serving silver on the table parallel to the silver on the cover and close to the dish to be served. Do not put the silver in the dish of food before it is brought to the table. Place each dish of food near the person who will pass it. If the individual plates are "dished up" in the kitchen, each one is placed before the person from the left side with the left hand. Beverages are placed and refilled to the right with the right hand. If the beverage is served at the table the pitcher or pot should be placed at the right of the hostess with the sugar and cream in front of her. The cups and saucers should be in front and a little to the left of her cover. When serving plates, mother's is placed first, then the others in order around the table to her right.

A Place for Everything

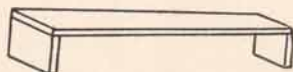
Convenient kitchens have plenty of built-in cupboards. Modern kitchens could make good use of storage space.

Here are some suggestions for rearranging supplies and equipment in the kitchen to make it more convenient for your mother and you to work. Well planned storage space will mean that:

1. Articles are stored near the place where they are used. (Paring knife near sink unit; egg beater near mixing table.)
2. Articles are stored within easy reach so that they can be removed without moving others.
3. Articles used together are stored together.

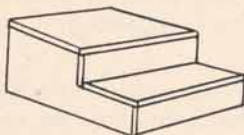
Old cupboards can be improved by making:

1. Portable shelf—small boxes may be used to make articles on back of wide shelves accessible.



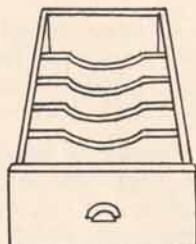
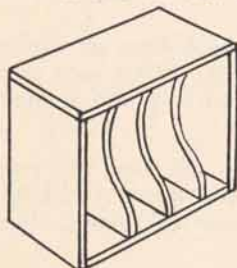
A portable shelf.

2. Stair-step shelf.



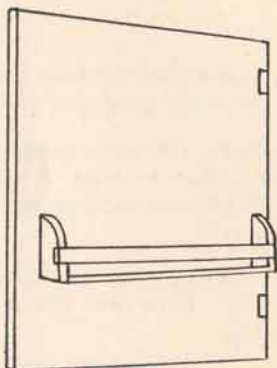
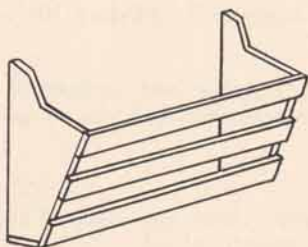
Stair steps for small, light weight articles.

3. File for flat articles in deep drawer or cupboard.



A deep drawer partitioned for flat articles.

4. Racks on cupboard doors.



5. Neater and more orderly arrangement of uniform, well-labeled containers for staple supplies.
6. Hanging shelves or corner shelves to fit into vacant wall space.
7. Knife rack.

Packing Lunches

The packed lunch should be planned as carefully as any other meal. If boys and girls are to get each day the foods necessary for good health and energy the noon meal must provide one-third of the day's needs. Each lunch should contain milk, fruit and/or vegetable, whole wheat or enriched bread, butter, and a simple dessert. It will be more appetizing if one dish is hot.

In 4-H work thus far you have prepared several foods which fit into a lunch box very well. The milk drinks and cocoa, the fruits, the raw vegetable "snacks" and the cookies from the Junior Cookery project will find a place here. Put these with a well made, nourishing sandwich and you have an A-1 lunch.

Besides being nourishing a lunch must taste good, carry well, and look attractive.

To have foods carry well, put heavier articles in the bottom so nothing will be crushed. Pack moist foods in containers with lids. Wrap each sandwich to keep it fresh. Pack crisp vegetables in a waxed bag with a dampened cloth in the corner.

Thoughtful selection of foods and careful packing of them will make the lunch more attractive when it is opened several hours later. Add bright napkins and colored paper cups. Slip in a surprise—stuffed prunes, olives, salted nuts, potato chips, or a piece of candy.

If your club plans a hike or picnic these samples of low-cost, hearty lunches may give you an idea of the kind of lunch you will want to plan.

- I. Sandwiches: Sliced meat on whole wheat bread.
Cottage cheese and green pepper on white bread.
Deviled eggs with lettuce wedges.
Orange or apple.
Oatmeal cookies.
Cocoa.
- II. Sandwiches: Egg salad on white bread.
Cheese and prune on whole wheat bread.
Raw carrot and turnip sticks.
Apple sauce.
Ginger cookies.
Milk.

Sandwiches

Sandwiches have always been the main part of lunch box meals because they are easy to carry and easy to eat.

There is an art to sandwich making. Before you start to make sandwiches put the butter where it will soften so it will spread easily, and assemble the sharp knife for slicing bread, the spatula or case knife for spreading and filling and the other articles and supplies needed.

Use enriched or whole wheat bread for full food value. Raisin, rye, orange, nut or fruit breads may be used for variety. Cream the softened butter so it can be spread easily. Butter and filling should be spread to the outermost edge of each slice of bread. Use bread that is fresh and fillings that are tasty and moist. If lettuce is to be a part of the sandwich filling, wrap a few leaves in waxed paper to be tucked in the sandwich when it is eaten. This prevents getting limp and soggy.

Some substantial fillings for variety are:

1. Cottage cheese with chopped pepper or pickle.
2. Ground liver with bits of crisp bacon and minced onion.
3. Scrambled eggs and bacon.
4. Chopped hard cooked egg, grated onion, pickle relish.
5. Cream cheese, raw cabbage and chopped salted peanuts.
6. Minced chicken with nuts.

7. Chicken giblets with celery.
8. Shredded fish with finely chopped cabbage moistened with lemon juice.
9. Baked beans mashed and moistened with chili sauce.
10. Grated cheese with tomato.

Suitable sweet fillings are:

1. Ground raisins, prunes, or dates moistened with cream. Nuts may added.
2. Peanut butter mixed with equal parts of honey or jelly.
3. Peanut butter with ground apple or sliced banana.
4. Grated carrots and ground raisins.
5. Cottage cheese with honey and orange rind.

Dark bread is often used for sweet sandwiches.

CO-OPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS.
UNIVERSITY OF IDAHO, COLLEGE OF AGRICULTURE, AND
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

D. R. THEOPHILUS, Director

Issued in furtherance of the acts of May 8 and June 30, 1914