

the mineral substances help in body-building. We shall learn more about them later on.

Other interesting facts about food. You can make your own list; for surely facts about preparing food so that it is delicious to eat, facts about serving it daintily, and knowledge of how to keep it clean, even of how to raise and sell it, and of how to buy it, will occur to you as worth knowing. One small book cannot contain all this information, but at least this book may help you to make a beginning.

The year's work. The heading of this chapter states our large problem for study during the year.

The projects, or pieces of practical work, for us are the school luncheon, the home supper, breakfast, and dinner. As we study each meal in the different chapters, we shall learn about the food materials and the dishes prepared from them suitable for each meal. Some of these dishes can be made at school, and most of them are useful for the home table.

EXERCISES AND PROBLEMS

1. Make a list of the foods you know, under grain, vegetables, meat foods, sugar, fats.
2. Can you give a fact that shows the egg to be a food that builds the body and gives energy?
3. Why is the body sometimes likened to an engine?
4. Can you tell how it is different from an engine?
5. Explain why milk is a food as well as a drink.



CHAPTER II

LUNCHEON AT SCHOOL

LESSON I

PROPER FOODS FOR THE SCHOOL LUNCHEON

WHAT are some of the foods that make a proper school luncheon? Can we prepare any of them at school?

Luncheon is an interesting part of the school program, is it not? especially when it is a good one. Marjorie Allen always takes something from home in her dainty luncheon box, and she is quite likely to offer a taste to some one else. Marjorie has sandwiches made from light, sweet bread, eggs especially prepared, milk, a slice of plain cake or a few cookies, and fruit or jelly in a small glass to be spread upon the bread. The different kinds of food are wrapped separately in paper, either plain and perfectly clean, or paraffined. A paper napkin is in the box, too. Marjorie uses a paper box,

which is burned afterwards with all the other papers and never thrown about to make the school yard untidy. This fall, however, Marjorie is bringing vegetables to school, and is talking about making cocoa. She is suggesting to the girls and boys in the Pleasant Valley School that they have a luncheon club and make



Courtesy of Mrs. Hetty Browne.

FIG. 3. — The boys and girls of Pleasant Valley have a luncheon club and make lunch a feature of the day.

lunch a feature of the day, instead of eating almost any thing as fast as possible in order to begin play. And what is the plan?

Planning a lunch club.

There are several ways in which the club can run the luncheon. Of course the members should vote on the matter. The teacher and the mothers will be consulted; and they will

surely approve the plan, if it is workable.

According to the old-fashioned way, each pupil brings a lunch in pail or box, and each has his own. The first step to make it pleasanter is the arrangement of some kind of table, which need be nothing more than boards set on boxes, either outdoors or inside. Paper napkins may be used, and a place laid for each pupil. This makes luncheon a picnic every day.

There is another method, already the fashion in some

schools, which is not difficult. Each pupil supplies one kind of food material, and each takes his turn in bringing a different kind. Two or three furnish milk; others bread or fruit or vegetables or whatever is convenient, the whole scheme being planned ahead. Of course, the division must be fair to all; and there is a chance here for some practical arithmetic in finding out the cost of materials and dividing the expense evenly.

When Marjorie proposes having vegetables as well as fruit, somebody says, "But we can't eat them raw." Then why should we not cook them?

Cooking at school. "What can we have to cook with at school?"

This will depend upon the yard and the size of the school. If there is plenty of room around the building, you already know one simple arrangement; for it is hardly possible that you have never roasted potatoes in the ashes of a fire out-of-doors.

A fireplace of stones or brick may be built and vegetables roasted; an old pail may be hung on a stick laid across the stones or, better still, on an iron bar or rod which may be found in some old scrap heap or at the blacksmith's. Wonders can be accomplished also with an old stove, which some one would be glad to give. John Alden is an energetic boy at Pleasant Valley School, ready to do carpenter work or to engineer the making of a stone or brick fireplace for cooking food at school.

If there is a shed in which it can stand, perhaps a

friend will contribute an oil stove. In the picture (Fig. 4) you will see the equipment for cooking which may be made from packing boxes that the grocer gives away.



Courtesy of Bureau of Publications, Teachers College, Columbia University.

FIG. 4.—An equipment for cooking may be made from packing boxes.

The boxes may be stained or painted white. This painting is pleasant work for a rainy day. If the mothers are interested in the club, they may be willing to give a few utensils; but, if the members of the club are very independent, they can buy their own. Only a few are needed and the expense will be slight.



Courtesy of President M. M. Parks, Georgia Normal and Industrial College, Milledgeville, Georgia.

FIG. 5.—A neatly arranged school cupboard. 1, wide-mouthed pitcher; 2, covered saucepans; 3, double boiler; 4, wire strainer; 5, Dover egg beaters; 6, measuring cups; 7, bowls; 8, knives, forks, and spoons; 9, "utility" plate, for cooking work.

In cold weather the luncheon can be prepared in the schoolroom; and, if the heater has a flat top, cooking can be done on that. A fireless cooker to use at school is convenient and can be inexpensive. (See Lesson 26.) If you have never tried it, you will be surprised to see how many delicious luncheon dishes can be made in the schoolroom.

If your school has a well-furnished cooking room, preparing luncheon at school is an easy matter.



Courtesy of Miss Jessie D. Ebert.

FIG. 6. — Serving luncheon at the Big Tree School.

At the Pleasant Valley School the work began with very simple equipments. Marjorie Allen heard of the school lunch club from a cousin who lives in New York

State. Miss James, the teacher at the Pleasant Valley School, asked Marjorie if she would not write to her cousin and ask for a description of her club. This is the answer to Marjorie's letter:

The Big Tree School,¹
September 5, 1915.

Dear Marjorie:

Yes, indeed, our hot lunch club is a great success. This is the way we began: There is a farm bureau in Erie County, and we celebrate Corn Day. We children at the school had a bread contest to which everybody came. Our mothers and fathers were so pleased that one of the trustees put some cooking equipment into our basement, and we use an old bookcase with glass doors for our cupboard. There are twenty-four of us in our cooking class, and each family gave twenty-five cents for buying dishes. We brought our own notebooks, spoons, cups and plates, aprons, soap, and hand towels; and we met every Wednesday afternoon. Then, as we had begun to have cooking lessons, our teacher thought we might as well have a hot lunch; so we had a warm-food club. Most of us come a long way and bring luncheon, and so we began by making only one or two hot things like cocoa, soup, stew, boiled rice with raisins.

This is the way we plan for the lunches. We have a

¹The information given in this letter was kindly furnished by Miss Jessie D. Ebert, District No. 27, Hamburg, Erie County, New York. Some of these facts were published in the *East Aurora Advertiser*, May 27, 1915, and others were written in a private letter.

committee that meets our teacher at twelve o'clock every Friday, and plans luncheon for every day for next week. We decide which of us shall furnish food and what food each one of us shall bring. We name the helpers for preparing the food each day, also. At one o'clock the committee passes a slip to those who are to furnish food, telling what food they are to bring and on what day. Sometimes one girl or boy changes with another. We have a book and keep a list of everything, so that nobody shall do more than his share. Usually each family does not furnish food more than once a month. It does not cost so very much either, — about ten cents each time one of us brings something. Here are some of the other things that we like: potato soup, baked beans, bean soup, tomato soup. Sometimes we make the things at home when mother is willing, and bring a pan of beans or macaroni, or something else, to be warmed up. Some of us did not join the club, but any one who is not a member may buy a cup of hot food for one cent. Usually two girls are appointed to do the cooking. Sometimes it is begun before school or at recess. At 11:45 the girls finish the luncheon; then we wash our hands, and sit down at our desks to be served. The girls, with one or two others to help, serve all of us. We take turns in washing the dishes; and it is funny that we never seem to mind it at school. We would not give up our lunch club for anything.

Your affectionate cousin,
Polly.

Packing the luncheon. When food is done up in packages, it should be neatly wrapped (see page 301).

If called on to act as judges in a luncheon-box contest, we might draw up for ourselves a score card like the following:

SCORE CARD	
LUNCHEON-BOX CONTEST	
	RATING
1. Neatness of box or wrapper	5
2. Appearance of the inside of the box	25
Neatness	
Daintiness	
3. Quality and preparation of food	35
Excellence of preparation	
4. Selection of food	35
Fitness for purpose	
	100

Courtesy of the New York State College of Agriculture at Cornell University.

EXERCISES AND PROBLEMS

1. Make a list of simple utensils that would help you in preparing food at school. You can recall those used at home.
2. What plan can you make for washing dishes?
3. Can you think of some way of avoiding dishwashing, or of having as little as possible?
4. Make a list of luncheon dishes that you think you might make at school.

LESSON 2

WATER AND FRUIT BEVERAGE

WHAT can we prepare to drink at school in addition to water, on warm days in fall and spring?

Let us think about some of the ways of making agreeable cool and hot beverages.

Fruit juices with water. "What fruits may be used in place of or with lemon juice?"

The answer to this is very simple: any fruit that is acid and juicy, and has a decided flavor, makes a pleasant drink. The beverage is wholesome, if one does not take too much and if it is not too sweet. Perhaps we are all more used to making lemonade than any other fruit drink, but the Pleasant Valley Club is trying other fruits on some of the warm days in September. Marjorie Allen experiments at home; when she sees that her Mother is warm and tired, she surprises her with a glass of cool fruit juice and water. Strawberry, currant, and raspberry juices are delicious in this way, and so is the juice from tart summer apples, slightly cooked. Canned fruits, jellies, or jam may be used; and, if the flavor is flat, a little lemon juice or cream of tartar may be added.

"How does Marjorie make the fruit juice into a refreshing drink?"

Marjorie sees first that the water is cooling. She allows one fourth to one third cup of sugar to a quart of water. Can you explain why the quantity of sugar

varies from time to time? If it is convenient, she melts the sugar in some hot water. Why? Next she prepares the fruit. The lemons must be washed, cut in two and squeezed, and have the seeds strained out. A glass lemon squeezer costs only five cents and is very handy. Two or three lemons to a quart of water will be enough, depending on the size of the lemons.

If Marjorie is working with another kind of fruit, she must squeeze the juice out, sometimes after cooking. The amount used must be "to taste"; or, if currant jelly is at hand, two or three teaspoonfuls to a glass of water are enough.

Marjorie has a dainty way of tasting things with two spoons, one for dipping out, and the other for the tasting. Finally, the water, sugar, and juice are mixed in a pitcher and cooled on the ice. When there is not ice, wrap a wet cloth around the pitcher and set it in the breeze. Do you know why this cools it?

These beverages may be prepared at school as easily as at home. Here is a chance to use your arithmetic in calculating the quantity.

A cool drink. On a hot day, the men in the field are glad of some refreshing drink. One of the girls in the Pleasant Valley School was taught by her grandmother how to make an old-fashioned beverage.

Have ready molasses, cream of tartar or vinegar, ground ginger, and nutmeg. Use about a quarter of a cup of molasses to a quart of water, and a teaspoonful of cream of tartar, which some people think more whole-

some than the vinegar. Stir into the molasses a teaspoonful of ground ginger and a grating of nutmeg, and mix all with the water. It is better when one is heated to have a cool, rather than an ice-cold drink; the temperature of well water is cool enough.

Fruit-ade. A fruit drink is sometimes called fruit-ade; and sometimes, fruit punch.

If the girls become very expert, they may be invited to make and serve a fruit beverage at a meeting of the Woman's Club or at some evening entertainment. Do not be afraid to try experiments with several kinds of fruit at a time. Use lemon juice first; add a glass of currant jelly, and a can of cherries or raspberries. Cut a banana in small pieces and serve in the fruit punch. Does some one say, "How odd to spend so much time talking about fruit juice and drink!"



Courtesy of the U. S. Department of Agriculture.

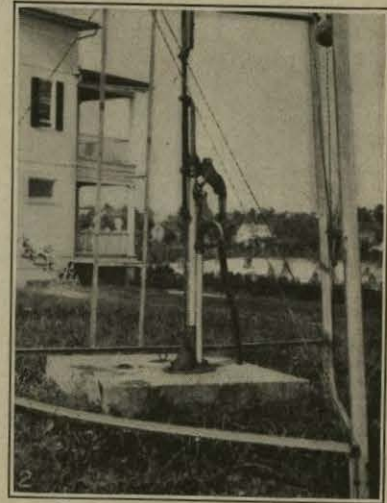
FIG. 7.—An old-fashioned open well is subject to surface wash.

Why are fruit juices valuable? They contain something most valuable to the body,—the mineral matter that you cannot see. How much better to take iron in fruit juice than in patent medicine. It not only tastes better, but the body can use

the iron in fruit when that in the medicine bottle is useless.

Why should we be careful about drinking pure water freely? Water is the important material in all our beverages, and we need to remember to drink it clear as well as flavored with other substances. It is found, too, in almost all our foods. Several years ago, when a number of Zuñi Indians were visiting the large cities of the eastern United States, some one asked them what was the most interesting object they had seen. One of them replied, "Water. You have all you want, and you can always get it out of a pipe in the wall."

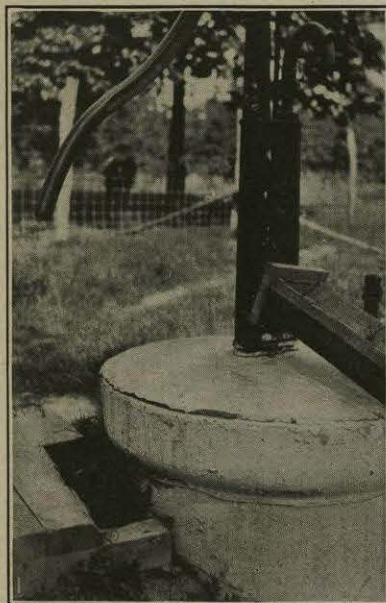
To people who live in dry lands, water is a precious thing. Do you know that we can live longer without food than without water? It helps to build the body, it aids digestion, it carries off waste matter, and it helps to keep the body at an even heat. It is given off from the body all the time, and therefore we need to drink freely many times a day. We may take it at meals; if we do not



Year Book. Department of Agriculture, 1914.

FIG. 8.—We cannot be too careful about the place from which the water comes. A cemented cover and carefully adjusted pump prevent surface wash.

drink it to wash down food, but between mouthfuls. Be careful to drink rather slowly; then you need not hesitate to take as much as you want.



United States Department of Agriculture. Year Book, 1914.

FIG. 9. — A cement or stone cover, with a trough beneath the spout of the pump, is a necessary protection for a dug well.

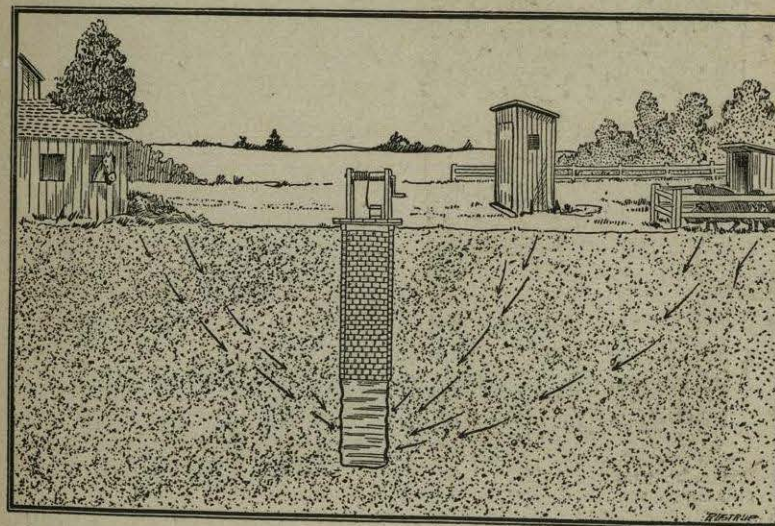
Yet this water may bring us illness,—and this we must study to prevent. Even though water is sparkling and clean, it may still be impure. As we cannot judge by its appearance, we must find out where the water comes from.

Keeping water pure. Nature has many ways of making water clean. Some of them are: letting it filter through the soil, purifying it in ponds and rivers; in both of which processes some of the lower forms of life known as bacteria, help. But when we allow large quantities of filth to get into the water, nature cannot always work fast enough, harmful bacteria grow, and sickness results if people drink the water. Typhoid fever, malaria, and other diseases are often due to impure water. We cannot be too careful about the

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place from which the water comes; for such a disease as typhoid is often carried to people far away, and many lives are lost because some one person or family has been careless.

The picture (Fig. 10) shows how unclean material may seep into a well from a barnyard or outhouse.



Virginia Health Bulletin, June, 1913.

FIG. 10. — Unclean material may seep into a well from a barnyard.

Let each girl and boy study the water supply at home. If the water comes from a spring, see whether the spring is cleaned every year and covered. Are farm animals allowed near it? Is the well covered? (See Fig. 9.) Is it cleaned every year? Are slops ever poured near it? It is a good plan to have cement around the well. Remember that health costs less than sickness. At

times, if the doctor says that sickness has come from the water, it should be boiled before drinking.

Be watchful, too, about ice, because freezing does not kill certain harmful germs. If the ice is dirty and, indeed, unless you are very sure that it has come from



Common drinking glass

Courtesy of Medical Review of Reviews.

Recently washed glass

FIG. 11. — Do not use public drinking cups.

a clean source, cool the water on the ice and never put the ice into the water.

Be careful to drink from a clean cup. Sore throats and even consumption (tuberculosis) may result, if more than one person drink from one cup or dipper. Each pupil should have his own cup. Paper cups cost very little. The luncheon club at the Pleasant Valley

School has decided to use them. Do not use public drinking cups. (Fig. 11.)

After a sad time, when diphtheria raged among the pupils of a school in another section, the Woman's Club of that town gave to the school a pump like that in the picture (Fig. 12). Do you see that the water is bubbling up and that the girl is drinking without a cup?

Water may contain lime and iron that make it "hard." If there is a large amount of the lime, it is best to boil the water for drinking.

If the inside of the teakettle has a

coating of lime, then you are using the kind of hard water that is improved by boiling. Sometimes to make water soft it is distilled. This is done by catching and cooling the steam. A distilling apparatus is made for home use.



Courtesy of the U. S. Bureau of Education. Bulletin 1914, No. 12.

FIG. 12. — At the Pleasant Valley School a drinking fountain is attached to the pump. The water is bubbling up and the girl is drinking without a cup.

EXERCISES AND PROBLEMS

1. Make a sketch of your water supply at home with its surroundings.
2. Make some plan for improving the water supply.
3. In what ways does water become impure?
4. Why is it important to use individual cups?
5. How much lemonade or other beverage would you prepare for fifty people? Estimate the cost.
6. What fruits growing in your locality, including wild berries, can be used for making beverages?
7. Explain why fruit juice is wholesome.

LESSON 3

COCOA FOR THE SCHOOL LUNCHEON

COCOA is easy to prepare for the school luncheon on the cold days of winter. What is the value of this and of other hot beverages; and what are some of the important things to think about in cooking them?

Milk or cream, and sugar give hot drinks some value as food. Grown people use coffee and tea because there is a substance in both of them, besides the flavor, that they think has a pleasant effect upon their nerves, although in the end most people would be better without either. Very agreeable beverages are made from roasted grain, and several of these can be bought. Of course, girls and boys do not take either tea or coffee; but there is no reason why they should not have a cup of cocoa for breakfast, and on cool days make it for the school luncheon.

What is cocoa? Cocoa and chocolate are manufactured from a seed somewhat like a bean, that grows in hot countries. The bean is roasted and ground, and from it chocolate is made. Cocoa is chocolate with the fat taken out. If you have ever seen cocoa butter,



Courtesy of Miss Myra Hunt.

FIG. 13. — A well-arranged school kitchen.

you know how this fat looks. Which will have the more food value, cocoa or chocolate?

How to cook. Let us now plan to make cocoa at school.

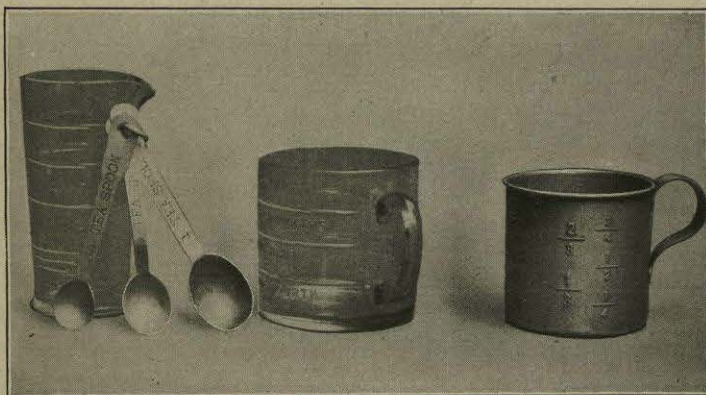
Cooking should be as dainty and pretty work as painting or sewing. We can make it so if we arrange neatly on the table everything to work with and do not spill food materials.

The illustration (Fig. 15) shows some convenient measures. See how the cups are divided. Of course,



Courtesy of the Forecast Magazine.

FIG. 14. — A neat working table and worker. Notice the fireless cooker.



United States Department of Commerce, Circular of the Bureau of Standards, No. 55.

FIG. 15. — Cups and spoons like these are convenient household measures.

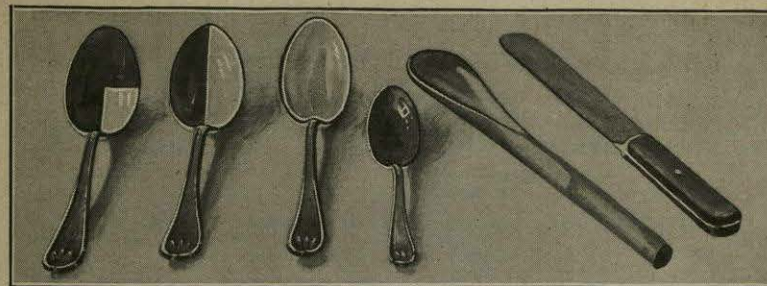


FIG. 16. — The spoonfuls in measuring should be level.

everyday spoons will do. The spoonfuls in measuring should be level. (See Fig. 16.)

When we cook, we should plan everything carefully, and take out what we need for work. This saves time and steps. We must think beforehand of:

1. What to take.
2. How much of each kind.
3. What utensils to use.
4. How to put the materials together.
5. How to cook these materials, — apply heat.
6. How to serve the cooked food.

These are what the cook books tell you about in what is called a "recipe" or "receipt."

Mollie Stark, another Pleasant Valley schoolgirl, is making her own cook book. Suppose we all begin to do so, too. Mollie is using a notebook with loose leaves, such as we have in school. If the cover of your notebook is not a pretty color, you can make one of some washable material, in the sewing