



## Useful Instructions in Preparation for Cooking

### **Safety**

Safe food handling practices are of primary importance when cooking. Children are more susceptible to food-borne illnesses because their immune systems have not yet fully developed. Close supervision is needed to ensure proper safety techniques are used and the cooking environment is safe.

### **Hand washing**

The most crucial food handling practice is proper hand washing before, during, and after handling food. Nail brushes, along with soap, help to prepare hands for food preparation.

### **Workspace**

Protecting food from contamination is vital. Sanitize the food preparation area with a 10% solution of chlorine bleach. At the work area, place sheets of wax paper for each child.

### **Dress**

Dressing to protect children's school clothes and to prevent food contamination is essential. Children may wear aprons or bring a shirt from home to slip over their clothes. Long hair should be tied back. Any jewelry or loose items that could fall into the food should be removed during food preparation.



### **Food Preparation**

The way food is handled contributes greatly to the safety of the food. Children may need to be reminded that cold foods should be kept cold and hot foods hot. When stored, foods should be securely wrapped. Remaining ingredients should be stored in airtight containers. Fruits and vegetables should be well washed with running water. When handling raw eggs, the shells should be discarded quickly. Children should wash hands after cracking eggs. As food is being prepared, it should not be tasted. Only the finished products should be eaten.

For your classroom you may want to have a poster with all or some of the following rules for safety and sanitation or laminate the attached sheet for your classroom.

# Safety Rules

1. When passing knives lay the knife down and let the other person pick it up.  
Use knives with a cutting board.



2. Use wooden spoon when stirring over heat.



3. Wash hands before handling.



4. Prepare food only on clean surfaces.

5. Tie long hair back when cooking.



6. Use a nailbrush to help clean under fingernails.

7. Keep hot foods hot and cold foods cold.



8. When storing foods make sure they are tightly wrapped or stored in airtight containers.



9. Discard eggshells quickly.



10. Wash your hands after handling raw eggs or eggshells.

11. Eat only finished products.

## Suggested sanitation activities

### Activity 1: Give Me a Hand



Objectives: Students will be able to

- Explain how germs are spread
- Explain how hand washing affects personal health
- Demonstrate good hand washing technique

Materials needed:

- Nutmeg
- Petroleum jelly or shortening, nutmeg

Directions

- Have children spread a **small** amount of petroleum jelly or shortening on their hands.
- Sprinkle nutmeg on each child's hands and explain that nutmeg *represents* dirt and germs. With younger children, emphasize that nutmeg is not actually germs.
- Have children touch a few things (desk, pencil, a piece of paper.)
- Assign children to two groups: group 1 washes hands in cold water with no soap and group 2 washes with warm water and soap.
- Have children wipe their hands on a paper towel and see if any "dirt" wiped off (there shouldn't be any for the second group).

Discussion questions

- What happened when you touched things with the nutmeg on your hands?
- If you touch a piece of paper and then pass it on to the person sitting next to you, what do you think will happen? (Have students try it to see if their predictions were accurate.)
- What happened in group 1 when you washed your hands? Have a child show their paper towel.
- What happened in group 2 when you washed your hands?

Student Response

- Copy following Sanitation Activities Sheet for each student.
- Have students complete.

### Sanitation Activities Sheet



Name \_\_\_\_\_



### Activity 1: Give Me a Hand

What three things do you need to wash your hands correctly?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Explain how hand washing the correct way can affect a person's health.

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### Activity 2: What's on Your Plate?

Explain why hand washing is important before preparing food.

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## Suggested Sanitation Activities

### Activity 2: What's on Your Plate?



Objectives: Students will be able to

- Predict what will grow in the agar plates
- Observe bacterial growth over time
- Draw conclusions about the growth of germs and hand washing

Materials needed

- Cotton swabs
- Agar plates (available from biological supply catalogs)
- Marker and tape

**Caution!!** If you choose to do this activity (and it is one that really makes an impression), make sure that after the agar plates are swabbed and covered, they are taped closed and NOT opened again. You do not know what you are culturing from your students' hands and do not want to expose them to any **pathogens** that might be present after incubation, should they open the containers. The incubated agar plates may need to be disposed of as a bio hazard. See the disposal of hazardous waste policy for your school.

Directions

- Explain that the agar is a kind of gelatin that provides food for bacteria and other organism to grow if the conditions are right.
- Have students predict what they think will happen to the agar plates after the plates have been in a warm dark place for 2-3 days. Record on chart paper.
- Have each child collect a small sample of germs from his or her hands with a cotton swab.
- Teacher may take a swab from a student's desk or pencil and drag on an agar plate.
- Open the plates when students are ready with their swabs.
- Have the students gently drag the cotton swabs over the agar plate.
- Cover and let rest for 2 to 3 days in a warm dark place where they won't be disturbed.
- Observe results at the end of this period.

### Discussion questions

1. What did you observe when you looked at the plates after they had been in a warm dark place?
2. What does that tell you about the cleanliness of your hands?
3. What could we do to reduce the amount of bacteria and other “stuff” that we see growing on the plates? (You may want to have 1 or 2 students wash their hands thoroughly and then plate samples from their hands to incubate for 2-3 days.)
4. Why is hand washing important?
5. Why is hand washing especially important before preparing food?

### Adapted from:

Scheer JK. *Germ Smart: Children's Activities in Disease Prevention*. Santa Cruz, CA: Network Publications; 1990.

## Equipment



Giving demonstrations and letting children practice skills with selected equipment may prevent accidents and improve food quality. Cooking lessons include the use of ovens, griddles, blenders, hand mixers, steamers, colanders, juicers, hand graters, whisks, straight-edged narrow metal spatulas, rubber spatulas, and knives.

### Knives

Knives should be stored in a purchased protector or homemade cardboard sheath. The recommended procedure for passing a knife to another person is to lay the knife down and let the person pick up the knife. Knives should be used on a plastic cutting board to prevent harming other surfaces and to provide a surface appropriate for cutting food. A paring knife has a small blade about 2 1/2 to 3 inches long and can be used to cut fruits and vegetables. A chef's knife is longer (6 to 12 inches) and heavier than a paring knife. A blade about 8 to 10 inches is a good size for chopping, slicing and dicing.

### Spoons and spatulas

Wooden spoons do not conduct heat and should be used instead of metal spoons when stirring over heat. Rubber spatulas help to scrape bowls clean. Straight-edged, metal, narrow spatulas are used to accurately level off dry ingredients from cups and measuring spoons.

### Colanders

A colander is used to drain fresh fruits and vegetables after washing and also to drain cooked foods.

### Measuring

Correct measuring is important for cooking success.

## **Dry ingredients**

A set of plastic or metal stacking measuring cups is used to measure dry ingredients. The ingredient to be measured is filled to heaping in the cup and a straight-edged spatula is used to level off the ingredient. When measuring flour, before leveling off the flour, use the straight edge to tap on top of the flour to get rid of air bubbles and then level the flour. For small amounts, spoons designed for measuring are used; measuring in spoons is done similarly to measuring in cups.

## **Liquid ingredients**

Liquid ingredients are measured in a clear measuring cup with a spout for pouring. To measure the liquid, set the cup on a flat surface and look at eye level for the bottom of the meniscus to be even with the needed amount, such as 1/2 cup. The meniscus is the curved upper surface of the liquid. Measuring in spoons is done simply by pouring the liquid until it meets the top of the spoon.