

The Food Safety Zone

Discussion

1. Ask participants what they think food safety means.

- Food safety means knowing how to properly store, prepare, and cook food safely for consumption. Food safety is even more important for children and teens whose immune systems are still developing. Germs can make them sick more easily than adults.

2. Discuss why food safety is important:

- Food safety is important because it reduces the risk of a foodborne illness or food poisoning. Foodborne illness is the result of eating contaminated food that causes a person to become sick and experience symptoms such as nausea, vomiting, fever, upset stomach, etc.
- Food safety increases food quality.
- Some germs that cause food-borne illness include:
 - bacteria (leading cause),
 - viruses,
 - parasites, and
 - fungi.
- You can't see, smell, or taste harmful bacteria that may cause illnesses such as salmonella on raw chicken or *E. coli* in ground beef.

3. You spread germs through:

- poor hand washing,
- sneezing and coughing on your hands,
- not taking care of a wound, and
- not following food safety procedures.

4. Hand-washing procedures:

- Wet your hands with warm running water.
- Apply soap.
- Rub hands together for at least 20 seconds.
- Clean under fingernails and between fingers.
- Rinse hands thoroughly under running water.
- Dry hands with disposable towel.

5. It is important to wash your hands:

- before eating,
- before setting the table,
- when touching clean dishes,
- when cooking,
- after using the restroom,
- after coughing or blowing your nose,
- after touching your hair,
- after playing with pets, and
- before or after you use the computer.

Just because your hands do not look dirty doesn't mean they are clean.

Learner Objectives

Participants will be able to:

- define food safety;
- discuss steps to prevent food-borne illnesses;
- identify when hands should be washed; and
- identify actions to ensure food safety in the home.

Materials

- Bowl of water
- Pepper
- Bar of soap
- Large area to run



6. The Soap Experiment:

In a bowl, sprinkle black pepper and tell students the pepper is like the germs on their hands.

Have students take turn dipping the bar of soap into the water to watch the pepper disperse.

Explain to the students that the soap acts the same way with the germs on their hands, and that is why it's important to use soap every time they wash.

7. During food preparation remember the four steps to food safety:

Clean — Wash hands and surfaces often.

Separate — Don't cross-contaminate.

Cook — Cook to proper temperatures.

Chill — Refrigerate promptly.

Basic Food Safety Recommendations

Storing

- Always refrigerate perishable food within 2 hours (1 hour if the temperature is over 90 degrees).
- The refrigerator temperature should be 40° F to slow the growth of bacteria.
- Freezer temperature should be at 0° F or below to stop the growth of bacteria.
- Cook or freeze fresh poultry, fish, ground meats, and variety meats within 2 days; other beef, veal, lamb, or pork within 3 to 5 days.
- Perishable food such as meat and poultry should be wrapped securely to maintain quality and to prevent meat juices from getting onto other food.

Cleaning

- Wash your hands before and after handling food.
- Use warm water and soap for 20 seconds and a single use towel to dry.
- Don't cross-contaminate. Keep raw meat, poultry, fish, and their juices away from other food. After cutting raw meats, wash cutting board, utensils, and countertops with hot, soapy water.

Preparation and Cooking

- Thaw meats in the refrigerator, in cold water, or in the microwave for immediate use. Do not thaw at room temperature.
- Bacteria grow at room temperature.
- The only way to know food is fully cooked is by taking its temperature with a thermometer, not merely by color change.
- Cook meat to a safe internal temperature.
- Beef, veal, and lamb steaks, roasts, and chops may be cooked to 145° F.
- All pork cuts, 160° F.
- Ground beef, veal, and lamb to 160° F.
- All poultry should reach a safe minimum internal temperature of 165° F.

Serving

- Temperature danger zone: 40° to 140° F
- Bacteria grow fast in the temperature danger zone.
- Avoid keeping food within the danger zone.
- Hot food should be held at 140° F or warmer.
- Cold food should be held at 40° F or colder.
- Perishable food should not be left out more than 2 hours at room temperature (1 hour when the temperature is above 90° F).

Leftovers

- Discard any food left out at room temperature for more than 2 hours (1 hour if the temperature was above 90° F).
- Place food into shallow containers and immediately place in the refrigerator or freezer for rapid cooling.
- Use cooked leftovers within 4 days.

Germ Busters!

Have two students be germs. Their job is to try and tag as many people as they can. Once a player has been tagged by a germ, they become a germ and must tag other players. The game ends once everyone is a germ. This shows the students how fast germs can spread if they do not wash their hands.

Play the game a second time. This time have one person be soap and another person be water. Together soap and water can wash away the germs and the person is clean again. Both soap and water must tag the player for them to become clean again. The original germs cannot be washed clean and must still try and tag the clean players. The game ends when the leader calls time after 3 minutes. When you have soap and water not everyone is turned to a germ. This is to remind students of the importance of washing their hands often so germs are not spread.



Worksheet

1 What are the four steps to handling and preparing food safely?

2 Why do we practice food safety?

3 Your refrigerator and freezer should be set at what temperature?

4 Food should not be left at room temperature for more than:

5 Chicken be cooked to what internal temperature?

6 What is the only way to be sure foods are cooked long enough to kill harmful bacteria?

7 How many seconds do you need to wash your hands with soap and warm water?

8 What is one thing you can do today make sure you are eating or preparing safe foods?

Kansas School Wellness Policy Model Guideline — Nutrition Education

Classroom: Middle-High School

Requirements achieved in this lesson:	Basic	Advanced	Exemplary
Basic, Advanced, and Exemplary	At least 25 percent of nutrition education involves hands-on activities that engage students in enjoyable, developmentally appropriate, culturally relevant, participatory activities.	At least 50 percent of nutrition education instruction involves hands-on activities that engage students in enjoyable, developmentally appropriate, culturally relevant, participatory activities.	
Topics	Proper hand washing Basic food safety		

Kansas School Wellness Policy Model Guideline — Physical Activity

Physical Activity Throughout the Day

Requirements achieved in this lesson:	Basic	Advanced	Exemplary
Basic, Advanced, and Exemplary	Classroom health reinforces the knowledge and self-management skills needed to maintain a physically active lifestyle and reduce time spent on sedentary activities, such as watching television.	When circumstances call for students to remain indoors and inactive for two or more hours, the students are given periodic breaks during which they are encouraged to stand and be moderately active.	Classroom teachers provide short physical activity breaks between lessons or classes, as appropriate. Opportunities for physical activity are regularly incorporated into other subject areas. (e.g., science, health)

References

K-State Research and Extension-Riley County Food Safety: <http://www.riley.ksu.edu/p.aspx?tabid=159>

K-State Research and Extension Food Safety: <http://www.ksre.ksu.edu/foodsafety>

United States Department of Agriculture: *Keep Food Safe! Food Safety Basics*, <http://www.fsis.usda.gov/wps/portal/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/keep-food-safe-food-safety-basics>

Answer Key

1. To reduce the risk of foodborne illness or food poisoning.
2. Clean, Separate, Cook, and Chill
3. Refrigerator should be at 40 degrees Fahrenheit, freezer should be at 0 degrees Fahrenheit or below.
4. Two hours
5. 165 degrees Fahrenheit
6. Take the temperature with a food thermometer.
7. 20 seconds
8. Answers vary.

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