

Home • Lesson 17

Bacteria? Not In My House

Class periods: One 30-min. class period

Supplement Section: Home PA PAS for FCS: 9.3.3 A, 9.3.3 B, 9.3.6 B, 9.3.9 B.

National Education Standards: FCS 8.2.1, 8.2.2, 8.2.3, 8.2.5, 8.2.6, 9.2.1, 9.2.2, 9.2.3, 9.2.5, 9.2.6; LA 2, 3, 035, 132, 278; MA 130; SC 5.

LESSON SUMMARY

Students will learn basic sanitation, food safety tips in the home, and ways to avoid bacterial contamination.

Objectives

Students will be able to:

- Identify food safety hazards in a test kitchen.
- Research and draw diagrams for one of the control points in the kitchen as shown numerically in the Consumer Control Point Kitchen diagram.

Materials Provided

Overheads:

1. Consumer Control Point Kitchen
2. Consumer Control Point Kitchen Information Sheet

Worksheets:

1. Can Your Kitchen Pass the Food Safety Inspection?
(Checklist for homework assignment)
2. Food Safety: From Farm to Table NIE Newspaper Activity, Kitchen Food Safety

Teacher Information Sheets:

1. Can Your Kitchen Pass the Food Safety Inspection?
2. Home Kitchen Safety
3. Teacher Evaluation Checklist for the Consumer Control Point Kitchen Activity
4. Evaluation for the NIE Newspaper Activity

Suggested Presentation Aids

- Set up a kitchen with food safety hazards.

LESSON PLAN

Class Period 1

Introduction

What comes to mind when you think of a clean kitchen? A truly clean kitchen ensures safe food and relies on more than looks. It depends on safe food practices. In the home, food safety involves proper storage, handling, and cooking. (Teacher information sheet 1)

Lesson Sequence

- Set up one to four kitchen(s) with food safety hazards (cross-contamination of foods, such as cutting boards and utensils, frozen foods thawing on the counter, leftovers not properly stored in refrigerator, cooked food left out more than two hours, refrigerator temperature higher than 40° F, meat incompletely cooked, not correct temperature when done, raw cookie dough available, dirty dish cloths and towels on counter, dirty countertops, and pet walking on countertops, if possible).
- Have teams of three or four students go through the kitchen(s) to identify and write down on paper the food safety hazards in the shortest amount of time (designate someone in each group to keep time). Report findings to the class and score for accuracy.
- After discussion, go through the kitchen(s) step-by-step and explain each hazard and what should be done to keep the kitchen safe and sanitary. Refer to the Teacher Information sheet 2: Home Kitchen Safety. Ask each group to write down on the same paper: How would each safety hazard in the kitchen be corrected?

Closure class period 1

Home Activity: Students will do an inspection of their kitchen at home to determine if it passes the food safety test. Refer to Teacher information sheet 1: Can Your Kitchen Pass a Food Safety Inspection? Hand out the

student checklist—Work-sheet 1, Can Your Kitchen Pass a Food Safety Inspection? —to each student and have them fill it in as they are inspecting their kitchen at home. Stress that the comment section must be filled in; ‘yes’ and ‘no’ answers will not be accepted.

Class Period 2

Review findings from the homework assignment: Can Your Kitchen Pass A Food Safety Inspection?

The Consumer Control Point Kitchen: Introduce the Consumer Control Points in the Kitchen using Overhead 1. Demonstrate where these areas are in the kitchen. Divide the class into groups of three to four students. Each group will be assigned a Consumer Control Point in the kitchen (Overhead 2), research the Consumer Control Point for additional background information, and draw a diagram(s) to illustrate the control point in the kitchen. What food safety points are important at each step?

Closure class period 2

Students will present the Consumer Control Points in the Kitchen diagrams to the class.

Suggested Learning Activities

Find newspaper articles about home kitchen food safety. Look for articles about handling and cooking meat in particular. List the food safety tips the article addresses. (Worksheet 2: Food Safety: From Farm to Table Newspaper Activity, Kitchen Food Safety)

Many students may not be involved in the preparation, processing, and storage of food at home. It may be useful to assign students to a meal (from purchasing to presentation and cleanup) at home or as a class activity. Have them identify safe food handling and storage principles they practiced.

Evaluation

- Evaluation of test kitchen for food safety hazards.
- The Consumer Control Point Kitchen group presentations will be evaluated on visuals, accurate information, and organization of material and time.
- Worksheet on home kitchen evaluation.
- Evaluate the Food Safety: From Farm to Table NIE Newspaper Activity, Kitchen Food Safety. (Teacher information sheet 4: Evaluation of NIE Activity)
- Quiz #17.
- Examination #5 at the end of the Home unit.

References

- Web site: <http://www.fda.gov/fdac/features/895-kitchen.html>. U.S. Food and Drug Administration. October 1995 FDA Consumer. Can Your Kitchen Pass the Food Safety Test?
- Web site: <http://www.extension.iastate.edu/foodsafety/ccp/point1.html> University of Iowa Cooperative Extension. The Consumer Control Point Kitchen.
- Web site: <http://www.extension.iastate.edu/foodsafety/steps/steps.html> University of Iowa Cooperative Extension. Ten Steps to a Safe Kitchen.
- Web site: <http://www.lancaster.unl.edu/food/ftsep96.htm> University of Nebraska Cooperative Extension.

Overhead 1

The Consumer Control Point Kitchen

Refer to the diagram, The Consumer Control Point Kitchen, at <http://www.extension.iastate.edu/foodsafety/ccp/ccpkitchen.html>

1. Buy cold food last..., Get it home fast!

2. Don't wait..., Refrigerate!

3. Keep it straight..., Don't cross contaminate!

4. Cook it well..., Or time will tell!

5. Keep hot foods hot..., Cold foods cold!

6. If in doubt..., Throw it out!

Overhead 2

The Consumer Control Point Kitchen Information Sheet

Refer to The Consumer Control Point Kitchen at <http://www.extension.iastate.edu/foodafety/ccp/ccpkitchen.html>

1. Buy cold food last..., Get it home fast!

Keep your food safe from the moment you put it in your grocery cart.

2. Don't wait..., Refrigerate!

Proper storage maintains quality and prevents contamination.

3. Keep it straight..., Don't cross contaminate!

Food can cause foodborne illness when conditions in the environment encourage bacterial growth.

4. Cook it well..., Or time will tell!

Thorough cooking will destroy harmful bacteria.

5. Keep hot foods hot a..., Cold foods cold!

Choose a serving style that will allow food to be served as quickly as possible, while maintaining desirable temperatures (below 40° F for cold foods and above 140° F for hot foods).

6. If in doubt..., Throw it out!

Handle leftovers safely. Don't taste leftovers you're not sure about.

Worksheet 1

Can Your Kitchen Pass a Food Safety Inspection?

<i>Inspection Point</i>	<i>Comments</i>
What is the refrigerator temperature?	
What is the freezer temperature?	
Are leftovers refrigerated no more than 2 hours after cooking? How are leftovers stored in the refrigerator?	
When cutting raw meat, poultry, or seafood, do you wash the cutting surface or board and knives with hot soapy water and rinse with hot water before chopping another food?	
What thermometers are available in the kitchen?	
How is meat doneness determined?	
What are the hand washing procedures in the kitchen?	
Are frozen foods thawed in the refrigerator?	
Are dirty dishtowels and dish cloths exchanged at least once a day for clean ones?	
Are cooked foods served on a clean plate?	
Is the refrigerator clean and are spills cleaned up immediately after they happen?	

Worksheet 2

Name _____

Class/Period _____

Date _____

Food Safety: From Farm to Table NIE Newspaper Activity, Kitchen Food Safety

Find newspaper articles about home kitchen food safety. Look for articles about handling and cooking meat in particular. Paste the pictures into the first column on this sheet. In the second column, write down the food safety tips the article addresses.

Kitchen food safety focus of newspaper article	Food Safety Tips

Teacher information sheet 1

Can Your Kitchen Pass a Food Safety Inspection?

1. Is your refrigerator set at 40° F or lower and your freezer at 30° F?

A refrigerator temperature of 40° F or less slows bacterial growth. Keep an appliance thermometer in your refrigerator and freezer. Check the temperature frequently and adjust the temperature control as needed.

2. Do you refrigerate leftovers within two hours after cooking?

Do not let food sit out beyond two hours after a meal. Bacterial growth will increase. Divide large amounts of leftovers into shallow containers for quick cooling in the refrigerator. Cover loosely. Stir food occasionally to help food cool. Secure the covering when cool.

3. When using a cutting board for raw meat, poultry, or seafood, do you wash it with hot soapy water and rinse it with hot water before chopping another food?

Keep raw meat, poultry, and seafood and their juices away from other food, especially foods that will be served without further cooking. After cutting raw meat, poultry, or seafood, wash cutting board, knives, and other utensils with hot soapy water and rinse with hot water. Plastic cutting boards can be washed in the dishwasher. Air-dry cutting boards. Replace wood cutting boards if they develop cracks. The boards may warp and bacteria can grow between cracks.

4. Do you cook meat, poultry, or seafood thoroughly so that juices show no trace of pink color?

Bacteria can spread throughout meat, poultry, or seafood during processing. Use a meat thermometer to check internal temperature of meat (160° F for ground red meat and 165° F for ground poultry). Roasts can stay pink in the middle if the internal temperature has reached a temperature of 145° F.

5. Before and after preparing food, do you wash your hands with hot soapy water for at least twenty seconds?

Hand washing is one of the most important practices you can follow for helping prevent foodborne illness.

6. Are frozen foods thawed in the refrigerator?

Food safety experts recommend thawing foods in the refrigerator, the microwave oven, or by submerging the package in a watertight plastic bag in cold water. **Do not thaw foods on the kitchen counter!** Thaw packages of raw meat on the lower shelf of the refrigerator so that juices do not contaminate other foods.

7. Are dirty dishtowels and cloths exchanged, at least once a day, for clean ones?

Bacterial growth can multiply rapidly on dirty dishcloths and towels. If everyone shares these towels, they are breeding ground for pathogens.

8. Is the refrigerator clean and are spills cleaned up immediately after they happen?

Clean up spills from foods and beverages. These spills can contaminate fresh foods.

9. Are cooked foods served on clean plates?

Never serve meats, poultry, or seafood from the same plate that held the raw meat. Marinades should be boiled before serving with cooked meats.

10. Do pets, such as cats, walk on countertops and/or tables?

Pets can carry many types of pathogens.

Teacher information sheet 2

Home Kitchen Safety

- Keep everything that comes in contact with food clean: hands, equipment, countertops.
- Wash hands with warm, soapy water before preparing food.
- Use separate platters, cutting boards, utensils, and equipment for cooked and uncooked meat, poultry, and fish.
- Avoid CROSS-CONTAMINATION. Keep juices from meats, poultry, and fish from coming in contact with any other foods. Wash cutting boards, countertops, utensils, and equipment after use with raw meats.
- Never eat raw meat, poultry, seafood, eggs, or foods containing raw eggs. Cook thoroughly; meat and poultry juices will run clear.
- Use proper personal hygiene. Direct sneezes away from the food preparation area. Wash hands afterwards.
- Thoroughly wash all produce.
- Avoid low oven roasting temperatures; use a thermometer to determine doneness.
- Do not leave cooked meat or other perishable foods out at room temperature for longer than two hours.
- When serving buffet foods, keep cold on ice below 40° F and keep hot foods above 140° F.
- Freeze or refrigerate leftovers immediately.
- For more rapid cooling, use small, shallow food storage containers to refrigerate or freeze leftovers.
- Date packages of leftovers and use within a safe period.
- Don't taste leftovers that you're not sure about. When in doubt, throw it out.
- Thaw foods only in the refrigerator or microwave. Finish cooking foods that are thawed in the microwave.
- Always place cooked foods in a clean dish. Never use the same dish that held raw foods, such as meat, poultry, or fish.
- Frequently change and clean dishtowels and cloths. These can be a breeding ground for bacteria.

Plating It Safe: A Market-to-Mealtime Checklist to Help Keep Food Safe. Developed by the National Cattlemen's Beef Association in cooperation with USDA/Food Safety and Inspection Service.

Teacher information sheet 3

Name _____

Class/Period _____

Date _____

Teacher Evaluation Checklist for The Consumer Control Point Kitchen Activity

Grade the diagram for the following criteria using the grading scale of 1-4 with 4 being the highest and 1 the lowest score. Write comments in the boxes under each score heading.

Diagram	4	3	2	1
Title/Slogan: Catchy, focal point of diagram.				
Creativity: Use of color, line, unique pictures, words, slogans.				
Neatness: Clean, organized, and not sloppy.				
Spelling: All words spelled correctly.				
Information: Research information is correct, complete, and useful.				
Handed in on Time: Handed in on due date. A point is deducted for each day late.				

Teacher information sheet 4

Name _____

Class/Period _____

Date _____

Evaluation of NIE Newspaper Activity

Grade the NIE activity on the following criteria using the 0-4 rating scale. Four is the highest rate and zero is the lowest rate. Write comments in the boxes under the rating for each criterion.

Criteria	4	3	2	1	0
Content: Information is correct, complete, and useful.					
Neatness: Clean, organized, and not sloppy.					
Spelling: All words spelled correctly.					
Handed in on time: Handed in on due date. A point is deducted for each day late.					
Time Management: Time used wisely and working on project at allotted time.					

Quiz 17 Key

Unit: Home

Lesson: Bacteria? Not In My House

Short answer and fill in the blank: Write short answers or fill in the blank to the following questions and statements. Use complete sentences when answering questions.

1. What is cross-contamination of food?

Getting juices from meats, poultry, and fish in contact with any other foods. Using cutting boards, countertops, utensils, and equipment with other foods after use with raw meats.

2. What does the following statement mean? “When in doubt, throw it out.”

If you are not sure when the leftover food was stored in the refrigerator, then throw it out. It is better to be safe than sorry when it comes to foodborne illness.

3. Why should food be thawed in the refrigerator and not on the kitchen counter?

Pathogens grow best and multiply rapidly at room temperature. Bacteria grow slower when refrigerated at 40° F or below.

4. Refrigerate leftover food within two hours after serving food.

5. What is the first hygiene practice you should do before handling food?

WASH YOUR HANDS!

6. Name two Consumer Control Points in the kitchen.

a. Buy cold food last..., Get home fast!

b. Don't wait..., Refrigerate!

c. Keep it straight..., Don't cross contaminate!

d. Cook it well..., Or time will tell!

e. Keep hot foods hot..., Cold foods cold!

f. If in doubt..., Throw it out!

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