

FOOD SAFETY

OVERVIEW

In this four-day unit, designed to prepare students for safe food preparation, students are introduced to the four principles of food safety and the practices associated with them. After getting an overview of the basic information, they practice applying the principles by simulating different cooking situations. Next, they try to spot errors in food safety practices by analyzing hypothetical scenarios.

The unit ends with a summative assessment where students name and define the four principles, then analyze four cooking scenarios to identify and correct unsafe practices.

STRATEGIES USED IN THIS UNIT (day of unit in parentheses)

CONTENT ACQUISITION	reading (1), jigsaw (1)
CONTENT PROCESSING	graphic organizers (1), game (3)
APPLICATION	simulation (2), gallery walk (3)
ASSESSMENT	test (4), entry slip (2), observation (2, 3)
DIFFERENTIATION	• curriculum compacting (1) • small group instruction (2,3) • digital options for all readings and documents requiring written input • individual work options for jigsaw and gallery walk • micro-differentiation during jigsaw, simulations, gallery walk

UNIT TITLE

Safe Food Handling

STANDARDS

Students will practice safe food handling and kitchen safety.

OBJECTIVES

By the end of this unit, students will be able to...

- Explain how unsafe food-handling practices can lead to foodborne illness.
- Describe the basic principles of safe food handling.
- Apply safe food-handling practices while preparing, cooking, and storing food.
- Evaluate food-handling situations, identify unsafe practices, and recommend safer alternatives.

ASSESSMENT PLAN

DIAGNOSTIC

[Diagnostic Assessment](#): Students describe the basic principles of safe food handling and analyze one cooking scenario for food safety practices. (paper and digital options available)

FORMATIVE

- **entry slip**, day 2 (paper and digital options available)
- **observation** of simulations (day 2), gallery walk (day 3), and Kahoot game (day 3)

SUMMATIVE

[Food Safety Summative Assessment](#): Students describe the basic principles of safe food handling and analyze four cooking scenarios for food safety practices. (paper and digital options available)

LESSON PLAN

UNIT	Safe Food Handling	DAY	1
LESSON TITLE	Principles of Food Safety		
OBJECTIVES	MATERIALS		
● Students will be able to name and explain the four principles of food safety and the key practices associated with each. ● Students will be able to explain how unsafe food-handling practices can lead to foodborne illness.	● Unit objectives on the board ● Four readings: one for each food safety principle (class set, paper and digital options) ● Alternate reading for advanced students ● Graphic organizer divided into four sections for notes on each principle (class set, paper and digital options) ● Jigsaw instructions on a slideshow ● Slideshow of after-jigsaw quiz (8 questions)		
Preparation: Assign students into jigsaw groups and expert groups ahead of time.			

ACTIVITIES	
Opening (5 min)	Hook: Show this video about a food poisoning episode caused by improperly stored rice. After showing the video, have students do a turn-and-talk to answer these questions: • Why did the people get sick? • What mistake did the restaurant make that caused the food poisoning? Preview: Explain that when food is not cooked, handled, and stored properly, it can cause people to get sick when they eat it. As we begin learning how to cook for ourselves, we're going to start by learning how to do it safely. Show students the four unit objectives and let them know that they will be able to do these things by the end of the unit.

Reading: Jigsaw (35 min)	1. Model the process: Show students the slideshow of instructions for how to do a jigsaw activity. 2. Have students sit in their assigned jigsaw groups*. 3. Give each student the reading assignment for their expert area — students read silently for 5 minutes. 4. Have students move into their expert groups for 5 minutes to plan their instruction. 5. Students return to jigsaw groups and take 5-minute turns teaching their section to other group members. As each expert teaches, students take notes on the corresponding section of their graphic organizer. *Curriculum compacting: If any students performed well on the diagnostic assessment, they will have the opportunity to skip the jigsaw and read How to Cut Food Waste and Maintain Food Safety, then identify three guidelines they think would be especially useful to someone cooking independently at home.
Whole-Class Quiz (5–8 min)	Project questions one at a time on the screen, following these steps for each: 1. Students respond first in writing on their own scrap paper. 2. Students compare their answer with a partner 3. Reveal the answer to the class as a self-check.
Closing (1 min)	Review and Preview: Tell students that they learned the basics of food safety today; tomorrow they will practice using these principles with a cooking simulation.

LESSON PLAN

UNIT	Safe Food Handling	DAY	2
LESSON TITLE	Practicing Food Safety When Cooking		
OBJECTIVES	MATERIALS		
Students will be able to apply safe food-handling practices while preparing, cooking, and storing food.	• Three recipes (printed and digital options) plus paper food and supplies for each group, plus an extra one for teacher demonstration • “Answer keys” for each recipe on slideshow to project after each round of simulations		
Preparation: Have the teacher demo recipe projected and “cooking” demo set up before class.			

ACTIVITIES

Opening (15 min)

Entry Slip: Give students 5 minutes to answer this question: “List the four principles of food safety and write a definition for each one in your own words.” Collect all responses, even if some are not complete after time is up — these are not graded, so you are just trying to see what they know. Show students the answers on the front screen after all slips have been collected.

Hook: Project [this recipe](#) for chicken quesadillas on the front screen. Show students that you have all the “ingredients” and “equipment” in paper versions set up at the front of the class. Tell students they are going to coach you through the recipe, making sure you follow food safety guidelines, and you’ll only do what they say. Only one student can go at a time; you will call on them to give you instructions.

After you have “cooked” the quesadillas, show students the answer key for this recipe, which lists the food safety steps that should have been taken while that recipe was made.

Preview: Tell students it’s their turn now: Today we’ll take what we learned yesterday about food safety and apply it to three more recipes.

Simulation:

Safe
Cooking
(30 min)

Have students work in groups of three. Do this activity in three 10-minute rounds, with each person taking a turn being the cook and the other group members acting as coaches. Each round will follow this sequence:

- The whole group reads the recipe silently. (1 min)
- The coaches tell the cook what to do, step by step, and the cook follows their instructions using the paper ingredients and equipment. (6 min)
- The class debriefs the recipe: The answer key is projected up front and each group reviews how they did. (3 min)

While students are working, quickly sort the entry slips into two piles: (1) students who got most or all of the answers correct, (2) students who got more than one answer incorrect or incomplete. Try to check in with as many students in pile 2 as possible during class to observe their conversations and correct misconceptions revealed on the entry slip.

Closing
(5 min)

Reflection (4 min): Have students do a turn and talk to answer these questions: Which of the four food safety principles do you understand the best? Which one do you understand the least? What questions do you still have? If time permits, have students share questions or areas of confusion, and either take note of them for follow-up tomorrow or address them right away.

Preview: Tomorrow we will be looking at descriptions of people cooking and seeing if we can determine whether they're following safe practices.

Note: Because this is just a sample, only the core learning activities for Day 3 and 4 are summarized here. I have not included all the information on objectives, materials, opening and closing, etc.

Day 3	Day 4
Gallery Walk with Scenarios (paper and digital options) Kahoot Game (15 min)	Summative Assessment (15-30 min) Recipe Search (remaining time)

DIAGNOSTIC ASSESSMENT

Part 1: In the space below, name each of the four basic principles of safe food handling. For each one, briefly describe what it means.

Principle	Definition

Part 2: Read the following scenario carefully, then answer the questions that follow. Keep your answers brief, but be specific.

Marcus is making chicken tacos for a few friends. He takes a package of raw chicken out of the refrigerator and cuts it into strips on a cutting board. When he’s finished, he sets the cutting board aside and starts chopping lettuce and tomatoes on it. Marcus cooks the chicken in a skillet. The pieces look fully cooked, so he takes the pan off the heat without checking the temperature. While he finishes preparing the toppings, he puts the cooked chicken on a serving platter on the counter. One friend arrives late, so everyone hangs out for a while before eating. About an hour and a half later, they make their tacos. After dinner, Marcus puts the leftover chicken in the refrigerator and leaves the leftover lettuce, tomatoes, cheese, and salsa on the table while they watch a movie. A few hours later, he puts those away too.	
What did Marcus do safely?	
What, if anything, did Marcus do	

that was unsafe?	
If anything was unsafe, why is the unsafe practice a problem?	
If anything was unsafe, what should Marcus have done instead?	

FOOD SAFETY SUMMATIVE ASSESSMENT

Part 1: In the space below, name each of the four basic principles of safe food handling. For each one, briefly describe what it means.

Principle	Definition

Part 2: Read each scenario carefully, then answer the questions that follow. Some scenarios may include more than one unsafe practice, and some may include none: If that is the case for any scenario, write n/a for the last three questions on every scenario. Keep your answers brief, but be specific.

Scenario 1: Grilled Chicken

Jordan is making grilled chicken with peppers and onions for dinner. He places two raw chicken breasts on a cutting board and trims them with a knife. When he finishes, he moves the chicken to the grill, then uses the same cutting board and knife to slice the peppers and onions. While the chicken is cooking, he uses a food thermometer to check the thickest part of one breast. The thermometer reads 155°F, so he decides to keep cooking. A few minutes later, he checks again and the thermometer reads 165°F. He removes the chicken from the grill and serves it with the vegetables.

What did Jordan do safely?	
What, if anything, did Jordan do that was unsafe?	
If anything was unsafe, why is the unsafe practice a problem?	
If anything was unsafe, what should Jordan have done instead?	
Scenario 2: Leftovers After dinner, Elena has a large pot of chili left over. She leaves the pot on the stove while everyone eats and cleans up. About an hour later, she divides the chili into several shallow containers, covers them, and puts them in the refrigerator. The next day, she reheats one portion until it is steaming hot, then puts the rest back in the refrigerator.	
What did Elena do safely?	
What, if anything, did Elena do that was unsafe?	
If anything was unsafe, why is the unsafe practice a problem?	
If anything was unsafe, what should Elena have done instead?	

Scenario 3: Making Sandwiches

Malik is making turkey sandwiches for lunch. Before he starts, he washes his hands with soap and water. He takes sliced turkey and cheese out of the refrigerator, makes the sandwiches on a clean cutting board, and returns the unused turkey and cheese to the refrigerator when he is finished. While preparing the sandwiches, he stops to answer a text message on his phone, then continues assembling the sandwiches.

What did Malik do safely?	
What, if anything, did Malik do that was unsafe?	
If anything was unsafe, why is the unsafe practice a problem?	
If anything was unsafe, what should Malik have done instead?	

Scenario 4: Preparing Dinner

Sofia is preparing hamburgers, a salad, and fresh fruit for dinner. She takes the ground beef out of the refrigerator and forms it into patties. Afterward, she washes her hands with soap and water before preparing the salad and fruit on a clean cutting board. She grills the hamburgers and checks the center of one with a food thermometer. After dinner, she puts the leftover salad in the refrigerator but leaves the remaining hamburgers on the counter. About three hours later, she puts them in the refrigerator.

What did Sofia do safely?	
What, if anything, did Sofia do that was unsafe?	
If anything was unsafe,	

why is the unsafe practice a problem?	
If anything was unsafe, what should Sofia have done instead?	