

Food Safety for Kids – On the Go!

Educator Guide

Big Idea/Inquiry Question

How can I use the four food safety steps to prevent foodborne illness?

Target Course and Grade

Language arts curricula across Canada for Grades 4–6.

This resource kit will support cross-curricular outcomes, including science, health and wellness, and food-specific courses for Grades 4–6.

Resources

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Introduction to the Theme

The learning in this resource kit focuses on the four food safety steps: clean, separate, cook and chill. Knowing these steps while handling and preparing food can help prevent foodborne illness. This kit highlights the four food safety steps for students on the go. Topics include school lunch food safety, food safety tips at the grocery store and food safety while outdoors. The activities in this resource kit are designed to address various language arts competencies. This resource kit includes engaging learning materials like interactive videos, real-life scenarios, problem-solving activities and games.

Student Achievement

This resource kit includes a set of six food safety achievement badges. These badges are meant to commemorate and celebrate students learning about food safety. Use these badges throughout the resource kit as a reward for participation or, at the end, as a token of student achievement. The food safety achievement badges can be found on pages 26–27 of this Educator Guide.

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A Message From Health Canada

Foodborne illness continues to be a significant health issue around the world. There are more than 4 million cases of foodborne illness in Canada annually. Each year, these illnesses result in over 11,500 hospitalizations and 240 deaths. These illnesses are caused by food that is contaminated by a variety of foodborne pathogens.

Symptoms usually include nausea, vomiting, diarrhea, stomach pain and fever. Usually, people recover quickly with no lasting complications, but in some cases, serious complications can occur, including death.

Everyone has a part to play in Canada's food system. Knowing how to properly clean, separate, cook and chill foods while handling and preparing them can help you and your students prevent foodborne illness.

We have created these food safety education resources to give students the knowledge they need to make safe and healthy food preparation choices. This age group might be interested in this topic because they might be helping prepare food in their homes. Food safety education is important for creating positive habits that will last a lifetime.

Teacher Backgrounder

Safe food handling practices are important when preparing food. Knowing how to properly handle and prepare foods can help prevent foodborne illness. There are four key steps to safe food handling practices: clean, separate, cook and chill. Education surrounding food safety and safe food preparation should focus on these four concepts.

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Clean

The “clean” food safety step means that hands, preparation surfaces, cooking surfaces and cooking utensils are cleaned before, during and after food preparation. Hands are one of the most common means of moving microorganisms from one place to another. Reminding students to wash their hands for at least 20 seconds using soap and warm running water is important. Completing this step ensures that harmful microorganisms are not transferred from unclean surfaces to clean surfaces. Eating food or consuming beverages containing harmful microorganisms can cause foodborne illness.

Separate

The “separate” food safety step means not cross-contaminating raw food and cooked or ready-to-eat food. Raw food can contain harmful microorganisms that may be transferred to ready-to-eat foods, food preparation surfaces and storage surfaces. Raw food should remain separate from ready-to-eat food at the grocery store, in the fridge and during food preparation. Use clean cooking utensils and dishes when switching from preparing raw foods to serving ready-to-eat foods. Remember: separate, don’t cross-contaminate!

Cook

The “cook” food safety step means cooking food to its recommended safe internal cooking temperature and checking with a digital food thermometer. Cooking food to its recommended safe internal cooking temperature will destroy harmful microorganisms that cause foodborne illness. With the help of an adult, students can use a clean digital food thermometer to check that their food is cooked correctly. This resource kit includes a student-friendly *Safe Internal Cooking Temperature Chart* for students to reference. Remember, you can’t tell if food is cooked to the correct temperature simply by looking at it.

Chill

The “chill” food safety step means keeping cold food cold. The goal is to keep food out of the food temperature danger zone. This danger zone is from 4°C to 60°C (40°F to 140°F). This temperature range is where bacteria can multiply quickly and cause foodborne illness. Microorganisms grow fast if food is left in the food temperature danger zone for over two hours, and if you eat this food, it could cause foodborne illness. To prevent foodborne illness, keep hot food at or above 60°C (140°F) and cold food at or below 4°C (40°F). This resource kit provides a student-friendly diagram of the *Food Temperature Danger Zone* for students to reference.

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School lunches containing “fridge items” should be packed in an insulated lunch bag with an ice pack. If students are taking food that should be served warm, they can heat it up before they leave home and store it in a heat-preserving container or Thermos. Remember, keep hot foods hot and cold foods cold!

Conclusion

Helping students understand the four food safety steps—clean, separate, cook and chill—will help them make safe food choices when preparing and storing food. You are encouraged to visit the “Additional Resources” on page 23 of this Educator Guide for more specific information about the four food safety steps and practices. This Educator Guide also includes a Food Safety Definitions for Students Handout on pages 24–25. You can use this handout to ensure learners are familiar with the vocabulary used in this resource kit.

Resource 3.1

Video

Food Safety on the Go!

Resource Description

Isabelle applies what she learned about food safety while preparing her lunch for school the next day. She also introduces us to the four food safety steps: clean, separate, cook and chill. Isabelle's grandmother is ready to help her with more complicated tasks, like using a digital food thermometer to check that chicken is cooked to a safe internal cooking temperature. Now that Isabelle's nutritious lunch is food-safe and ready to go, she is all set for an awesome day at school!

Learning Objectives

Students will be able to:

- identify the four food safety steps
- apply the four food safety steps to preparing a school lunch

Instructional Plan

Before

Consider having students share what they already know by talking with an elbow partner (someone close to them) about these questions:

- Do you help to prepare or cook food in your home? Share your experiences.
- What is your favourite food? Do you know how this food is prepared?
- Who prepares your school lunch? Do you help prepare your lunch?

During

Play the video.

Pause the video when prompted.

- Students can answer the questions using the Think, Pair, Square, Share strategy (see "Related Resources" on page 6).

Alternatively, consider having students watch the video in small groups and discuss or research the questions at their own pace.

- They could record their findings by collaborating on an electronic document.

See "Answer Key" on page 6 for suggested answers.

After

Consider creating a question wall (see "Related Resources" on page 6) for students to share their questions about foodborne illness and food safety.

You can use this question wall to guide students' learning throughout this resource kit.

Resource 3.1

Video

Food Safety on the Go!

Answer Key

1. **Question:** What did Isabelle do to follow the “clean” food safety step?

Answer: *The video mentions handwashing, using clean cooking utensils, ensuring clean cooking surfaces and having a clean lunch bag.*

2. **Question:** How does the “separate” food safety step help us avoid cross-contamination?

Answer: *By separating raw from ready-to-eat food, we ensure that harmful microorganisms are not transferred from raw to ready-to-eat food. We also want to use separate cooking utensils, like cutting boards, to make sure that harmful microorganisms are not transferred from raw to ready-to-eat food.*

3. **Question:** Why is it important to check that chicken is cooked to the recommended safe internal cooking temperature?

Answer: *A safe internal cooking temperature means food is cooked to a high enough internal temperature to kill any harmful microorganisms that may be present. You need to use a digital food thermometer to check the internal temperature of food. For more information, visit Health Canada’s Safe Cooking Temperatures web page at <https://lbrd.ca/safecoookingtemperatures>*

4. **Question:** Do you know any other tips for keeping cold foods cold or hot foods hot while on the go?

Answer: *Answers will vary. Students should focus on using ice packs, frozen water bottles or frozen food items to keep food cold. To keep foods hot, students should heat the food at home and store it in a heat-preserving container or Thermos to keep it hot throughout the day.*

5. **Question:** What food safety steps will you use to pack your lunch?

Answer: *Answers will vary. To facilitate the conversation, visit Health Canada’s Safe School Lunches web page at <https://lbrd.ca/safeschoollunches> for tips. Consider having students write their responses in a shared writing space.*

You can also explore ideas such as where to store their food at school (ideally in a cold location, away from any heat or sun).

Related Resources

- For more information on the Think, Pair, Square, Share strategy, visit EAL in the Daylight at <https://lbrd.ca/thinkpairsquareshare>
- To learn more about question walls, read this PDF from the Blue Apple website at <https://lbrd.ca/Question-Wall>

Lunch to Go!

Resource Description

Why is it important to stop the growth of microorganisms in your food? Students will learn about microorganisms' role in foodborne illness and how to keep their food out of the food temperature danger zone while on the go. They will then apply their learning and the four food safety steps (clean, separate, cook and chill) to demonstrate how to pack a food-safe lunch.

Learning Objectives

Students will be able to:

- apply the food-safe concepts of clean, separate, cook and chill to preparing their school lunch
- determine the role of microorganisms in food spoilage

Materials Needed

- scissors
- colouring supplies
- glue

Instructional Plan

Before

Encourage students to visit the Health Canada website at <https://lbrd.ca/safeschoollunches> to learn tips for packing a safe lunch.

During

Have students view Health Canada's *Healthy School Lunch* video at <https://lbrd.ca/Zachslunch>

Ask students to discuss the questions with an elbow partner. Consider debriefing the questions as a whole group.

Read the "Breaking News!" section and accompanying article to the students.

Have a discussion using the questions provided. See "Answer Key" on page 8 for suggested responses.

For the "Challenge: Pack a Healthy and Food-Safe Lunch" section of the handout, consider giving students more flexibility to add food items that are relevant to them.

Remind students that the cold foods need to be kept cold and the hot foods need to be kept hot. Specifically, the cut-up fruits and veggies (cucumber and watermelon), hummus, yogurt, sandwich and milk should be kept cold. The soup and rice dish should be kept hot. The crackers and banana can be kept at room temperature.

You can have students share their lunch boxes with others and talk about their food choices and food-safe practices.

After

Encourage students to bring their completed lunch boxes home to discuss their choices with their families.

Resource 3.2

Lunch to Go!

Teacher Tip

You can digitally complete the “Challenge: Pack a Healthy and Food-Safe Lunch” activity by having students draw their lunch box, storage options and food items using a program like Google Drawings.

Consider printing out an enlarged version of the Lunch Box Template and Food Item Cards and completing the activity together as a class.

Answer Key

The Science Behind Microorganisms

1. Question: How can harmful microorganisms enter your body?

Answer: *Harmful microorganisms can enter your body when you eat or drink contaminated food or beverages.*

2. Question: How can you stop harmful microorganisms from entering your body?

Answer: *The best way to stop the spread of microorganisms is to follow the four food safety steps: clean, separate, cook and chill.*

3. Question: What happens to the microorganisms when they are in the food temperature danger zone?

Answer: *Microorganisms can multiply very quickly when they are in the food temperature danger zone for two hours or more.*

4. Question: What happens to microorganisms when they are too cold (below 4°C) or too hot (above 60°C)?

Answer: *When microorganisms are kept cold, it limits their growth. When microorganisms are heated to recommended safe internal cooking temperatures, they are killed.*

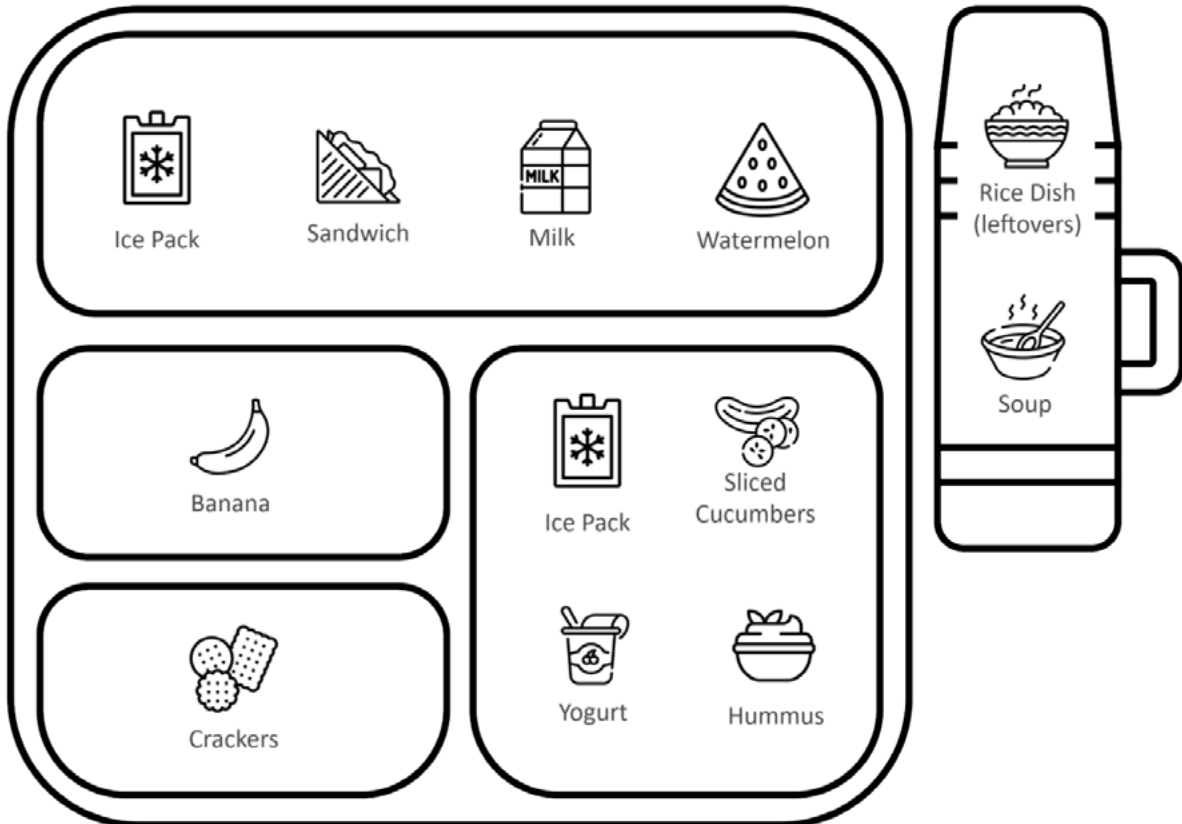
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Resource 3.2

Lunch to Go!

Answer Key

Lunch Box Template



Resource 3.3

Video

Food Safety at the Grocery Store

Resource Description

Come along with Isabelle and Tai as they go to the grocery store. While shopping, they share food safety tips and explain how the four food safety steps (clean, separate, cook and chill) apply to this on-the-go scenario. Students will consider how they can make food-safe choices while at the grocery store.

Learning Objectives

Students will be able to:

- identify risk factors that may cause spoilage in foods
- apply food-safe practices while at the grocery store

Instructional Plan

Before

Consider reviewing the definitions of perishable and non-perishable foods. Have students brainstorm some examples of each.

Consider having students imagine themselves going to the grocery store. Have them draw a shopping cart and add their favourite food items.

During

Play the video.

Pause the video when prompted and have students discuss the questions. Provide answers as needed (see “Answer Key” below).

After

Challenge students to go to the grocery store with their parents or guardians. Have them plan for the trip by writing down food safety tips.

Answer Key

1. Question: Why do you think Tai is hesitant to take this can of pineapple tidbits?

Answer: *If a can is dented, swollen, or rusty, dangerous bacteria can potentially enter it. It is best to purchase canned goods that are not dented, swollen or rusty.*

2. Question: Which of these raspberry packages should Isabelle buy? Why?

Answer: *Isabelle should choose the raspberries that are free from mould. It is best to pick produce that looks fresh.*

(Continued on next page)

Resource 3.3

Video

Food Safety at the Grocery Store

Answer Key

- 3. Question:** Do you know how to read a best-before date? What is the best-before date on this yogurt? What does the best-before date mean?

Answer: *The best-before date shown is January 30, 2025. The best-before date indicates how long a properly stored unopened food product will keep its freshness, taste, nutritional value and other qualities claimed by the manufacturer. For more information, visit Understanding the Date Labels on Your Food web page at <https://lbrd.ca/datelabels>*

- 4. Question:** What are some ways that you can separate raw food, such as raw chicken, from ready-to-eat foods while grocery shopping?

Answer: *Place raw chicken in a separate plastic bag. Place raw chicken in the bottom of the grocery cart, away from ready-to-eat items. Place raw chicken in a separate reusable grocery bag.*

- 5. Question:** What will you do the next time you go to the grocery store to ensure your food is safe?

Answer: *Answers may vary. Visit Health Canada's Grocery Shopping Tips web page at <https://lbrd.ca/grocerytips> to facilitate a more directed conversation.*

Teacher Tip

Consider discussing ways of safely transporting different types of food. For example, you could talk about taking hot foods in an insulated bag to keep them warm or using an ice pack to keep cold foods cold.

Resource 3.4

Food Safety Scenarios

Resource Description

How can you keep food safe while on the go? Students will apply the four food safety steps (clean, separate, cook and chill) to real-life scenarios. They will consider scenarios like having a barbecue at the park, hosting a seafood dinner with family, bringing game-day snacks for the team and setting up a buffet for a winter event. Next, students will plan a food-safe trip. Where will they go? What is on the menu? And how will they keep their food safe?

Learning Objectives

Students will be able to:

- use problem-solving strategies to improve food safety in various situations
- create a plan that applies the four food safety steps to an outing

Instructional Plan

Before

Consider forming groups of two or three students to complete this activity.

Consider organizing a real-life class outing that involves food so students can plan it using the “Planning Your Food-Safe Trip” section of this handout.

During

Join students in their groups to complete a formative assessment of their food safety knowledge as they work through the scenarios.

- Formative assessment considers where the student is currently in their learning. Through guided conversation, try to find out what they have learned so far and what they need to learn more about.

Consider assigning a discussion leader that keeps the group on topic and on time.

After

You can have students display their planned trips in a shared space around the classroom.

Encourage students to go on their planned trip. (Remember to bring a trusted adult.)

Students can take a photo or complete a journal entry about their outing once they have completed it.

Consider encouraging students to visualize their trip by having them draw and label a picture with the people and food they plan to bring.

Resource 3.4

Food Safety Scenarios

Answer Key

Food Safety Scenarios – Suggested Responses

Scenario 1 – Barbecue at the Park

1. **Question:** What steps would you take to make sure no one gets foodborne illness at the picnic?

Answer: *Answers will vary. Students should focus on using the four food safety steps (clean, separate, cook and chill) to minimize food safety risks.*

2. **Question:** How would you keep your food safe while travelling to the park from the grocery store?

Answer: *Use an insulated grocery bag with ice packs to ensure the cold food stays cold.*

3. **Question:** How would you store your food items safely at the park?

Answer: *You can use an insulated cooler with ice packs to ensure the cold food items stay cold. You can also use a digital food thermometer to check that the cooler's temperature is at or below 4°C (40°F).*

4. **Question:** How would you make sure your food is cooked to a proper temperature while at the park?

Answer: *Use a digital food thermometer to ensure your food is cooked to a safe internal cooking temperature.*

5. **Question:** What should you do with any leftovers from the barbecue?

Answer: *Leftovers should be kept cold to ensure harmful microorganisms do not grow on them. If you leave food at room temperature for more than two hours, then it should be thrown out. If the weather is warm outside, refrigerate food sooner.*

Scenario 2 – Seafood Night

1. **Question:** In what order would you shop for the items on your list?

Answer: *You should shop for items stored at room temperature first, then cold or refrigerated food items and then frozen food items. The order of items would be rice, salad, seafood dip, shrimp (these three items are interchangeable) and then scallops.*

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Resource 3.4

Food Safety Scenarios

Answer Key

Food Safety Scenarios – Suggested Responses

Scenario 2 – Seafood Night

2. Question: How would you package the food properly for your bike ride home? Think about raw and ready-to-eat foods.

Answer: *Place the cold and frozen items in the insulated grocery bag with an ice pack. Separate raw and ready-to-eat foods by using different grocery bags.*

3. Question: What should you do with each food item when you get home?

Answer: *You should immediately place frozen foods in the freezer and cold foods in the refrigerator.*

4. Question: How would you thaw the scallops to get them ready for cooking? You will cook them tonight.

Answer: *You can thaw the scallops by running them under cold water or by using the microwave. Visit Health Canada's Safely Defrosting Foods web page at <https://lbrd.ca/safelydefrost> for more tips on safely defrosting food.*

Scenario 3 – Game Day Snacks

1. Question: How would you keep the cold snacks cold until after your baseball game?

Answer: *The popsicles, oranges, cheese and hot dogs need to be kept in an insulated cooler with ice packs. The crackers can be stored at room temperature.*

2. Question: How would you reheat the hot dogs after your game?

Answer: *You will need to reheat the hot dog to the recommended safe internal temperature of 74°C (165°F) using a microwave, barbecue or by boiling water on an outdoor stove.*

3. Question: Why is it important to keep cold foods cold and hot foods hot?

Answer: *It is important to keep cold foods cold and hot foods hot to avoid the food temperature danger zone. Keeping food out of the food temperature danger zone helps to kill or slow the growth of harmful microorganisms on food.*

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Resource 3.4

Food Safety Scenarios

Answer Key

Food Safety Scenarios – Suggested Responses

Scenario 3 – Game Day Snacks

4. Question: How would you store the condiments if you brought ketchup, mustard and relish for the hot dogs?

Answer: *If they are unopened, they can be stored at room temperature. If they are opened, they need to be kept cold.*

Scenario 4 – Setting Up the Buffet

1. Question: How would you serve and keep the chicken alfredo pasta warm?

Answer: *Use a warming appliance such as a Crock Pot or your stove/oven on a low setting to keep the pasta warm.*

2. Question: How would you keep the fresh-cut fruits and vegetables cold?

Answer: *You can place the fresh fruit and vegetables on ice to keep them cold while they are out of the refrigerator.*

3. Question: How would you keep the hot chocolate hot?

Answer: *Use a warming appliance such as a Crock Pot or a pot on your stove to keep the hot chocolate hot.*

4. Question: How many serving spoons and tongs will you need for your buffet?

Answer: *Every food item will need its own serving spoon or utensil. You will need a minimum of five serving utensils for this buffet.*

Resource 3.5

Food-Safe Recipes

Resource Description

It's time to get back into the kitchen and think about how to prepare our food safely before we take it to go! Incorporating the four food safety steps (clean, separate, cook and chill) is an important part of any recipe. In this activity, students will create food-safe recipes by including the four food-safety steps in their recipe directions!

Learning Objectives

Students will be able to:

- apply safe food handling concepts when preparing food for themselves and others
- create a recipe that integrates the four food safety steps

Instructional Plan

Before

Ask students if they have a favourite recipe or food item that someone makes for them.

- Students can share ideas using a Think, Pair, Square, Share strategy (see "Related Resources" on page 17).

During

Review the food safety tips with students.

Consider reading the definition of a recipe found in "What is a Recipe?" together as a class and highlighting the different parts of a recipe with students.

Ask students to highlight the food safety tips they can find in the sample recipe by circling or underlining them. Consider finding one or two food safety tips together as an example.

After

Consider assigning the bonus activity to further your students' understanding of recipes and food safety.

Students can create their recipe from a family recipe or choose a kid-friendly recipe from the Government of Canada's Canada's Food Guide web page at <https://lbrd.ca/kidfriendlyrecipes>

Encourage students to cook their recipes at home with a trusted adult and document their experience. Afterwards, you could create a collage of photos and recipes to display in the classroom.

Students could role-play cooking their dish in the classroom if they cannot cook it.

Consider using the reflection questions to guide a discussion about food safety.

Teacher Tip

Students could create a blog post to share their food-safe recipe and a photo of their completed dish.

Resource 3.5

Food-Safe Recipes

Related Resources

- For more information on the Think, Pair, Square, Share strategy, visit EAL in the Daylight at <https://lbrd.ca/thinkpairsquareshare>
- For more food safety tips, students can visit the Government of Canada's *Food Safety and You* web page at <https://lbrd.ca/foodsafety>
- For more information on writing food-safe recipes, visit the Safe Recipe Style Guide website at <https://www.saferecipeguide.org>

Resource 3.6

Food Safety Crime Game

Resource Description

Isabelle and her friends have become sick with foodborne illness. It is up to the students to analyze clues, solve puzzles and think critically about what could have caused the foodborne illness. Students will have to apply the four food safety steps (clean, separate, cook and chill) to solve this mystery! Good luck!

Learning Objectives

Students will be able to:

- demonstrate their knowledge of the four food safety steps
- analyze numerous pieces of information to make an informed decision

Instructional Plan

Before

Read over the puzzles and answers before you give this activity to the students.

During

Consider having students complete this activity in small groups or pairs. It will be helpful if they can generate ideas together.

Explain to students that they need to solve all the puzzles and look for clues everywhere on the handout to solve the foodborne illness outbreak.

Students may have questions throughout this activity; try to help them find strategies to answer the puzzles. Avoid giving direct answers to the questions.

Students may benefit from having a device with them that they could use to check food safety facts.

After

Debrief the activity by reviewing the investigation report with students.

Students may have come up with different answers. Point them to clues they might have missed during their investigation (see “Answer Key” on page 19).

Teacher Tip

Consider using the puzzles to set up an escape room-style activity (see “Related Resources” on page 22). To create an escape room activity, do the following:

- Cut out each puzzle.
- Place each puzzle around the room.
- Give each student a clue tracker.
- Read the introduction to students and post it somewhere visible in the room (there is a clue in it that they will need to solve the outbreak).

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Resource 3.6

Food Safety Crime Game

Teacher Tip

- Read the instructions to students.
- Have students travel around the room in small groups to complete all the puzzles (in a different order).
- At the end, have the groups fill out the investigation report.
- Reveal the puzzle answers to the class.
- The groups that solved all the puzzles and figured out the foodborne illness outbreak would escape the room!

Answer Key

Clue 1 – Pizza Time Lapse

Clock 1 shows that the pizza arrived at 12:00 PM, and Clock 2 shows that the students ate leftover pizza at 4:00 PM.

1. Question: How long was the pizza left out?

Answer: *It was left out for four hours.*

2. Question: What is the recommended time leftovers should be left out?

Answer: *No more than two hours.*

3. Question: Could this have been the source of the foodborne illness?

Answer: *Yes.*

Clue 2 – Birthday Party Reflection

1. Challenge: Using the alphabet grid, decode the message by changing each letter in the line to either the letter directly below or above it.

Answer: *There was cross-contamination between raw burgers and raw veggies.*

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Resource 3.6

Food Safety Crime Game

Answer Key

Clue 3 – Theatre Improvements

- 1. Challenge:** Read the article to find clues about a possible foodborne illness outbreak. Take note of the first letter in each sentence.

Answer: *Students will read the article. If you take the first letter of each sentence, the message will spell this: HOT FOODS NEED TO BE KEPT HOT.*

- 2. Question:** What food safety mistake has the movie theatre made?

Answer: *The movie theatre is serving everything cold. They are not keeping hot foods like hot dogs and nachos hot.*

- 3. Question:** Could this have caused a foodborne illness outbreak?

Answer: *Yes.*

Clue 4 – Grocery Store Code

- 1. Challenge:** Students need to help Dakota figure out the best-before date at the grocery store. They will use the given pattern and grids to figure it out.

Answer: BB
26 AL 14
MA

- 2. Question:** Had the yogurt drinks passed their best-before date?

Answer: *No. The best-before date is April 14, 2026. The introduction to this activity includes a date of September 02, 2025. Therefore, the yogurt is not past its best-before date.*

- 3. Question:** Is there any evidence that points to Dakota's snacks causing a foodborne illness outbreak?

Answer: *No.*

Clue 5 – Our Classroom Is a Maze

- 1. Question:** What do the surfaces of the items in this maze have in common?

Answer: *They are all high-touch surfaces. These surfaces are where harmful microorganisms can spread from one person to another.*

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Resource 3.6

Food Safety Crime Game

Answer Key

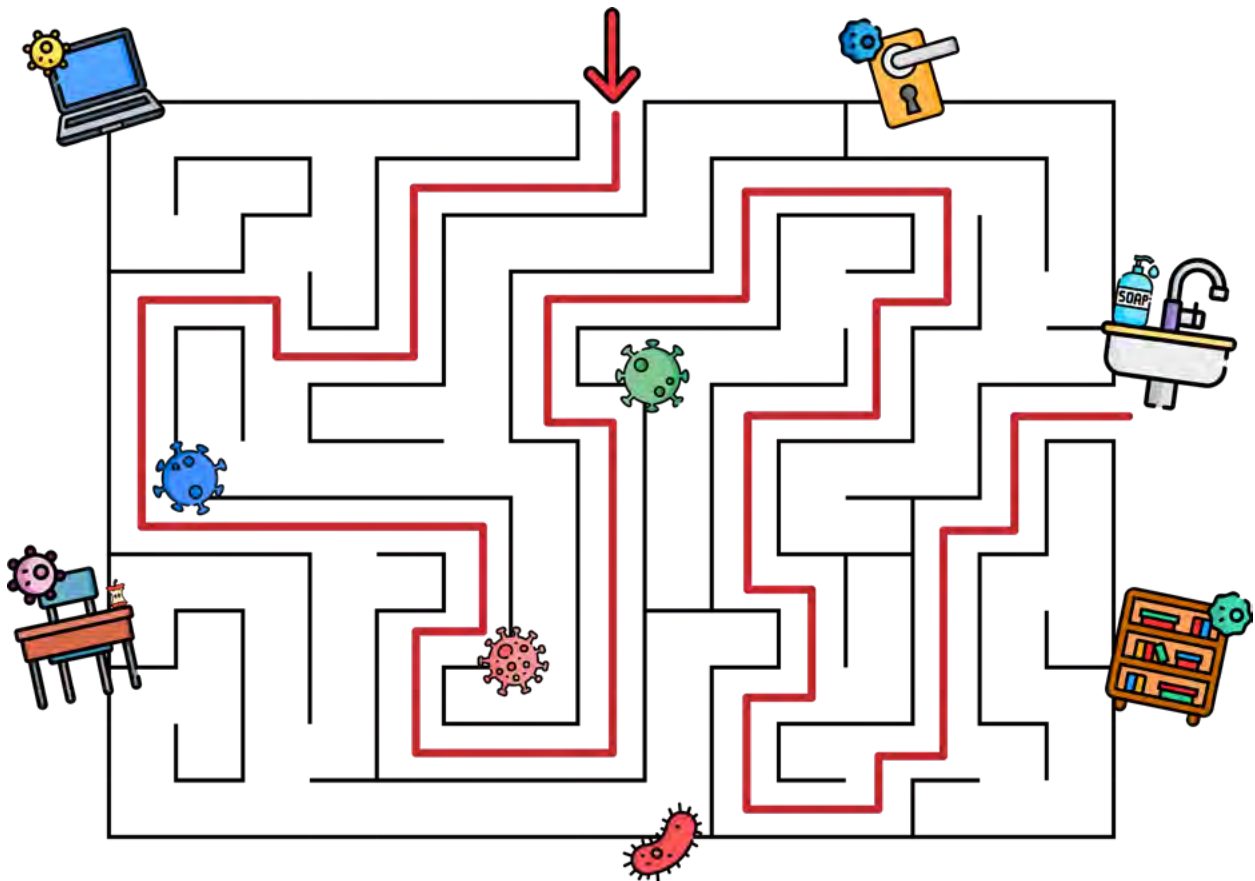
Clue 5 – Our Classroom Is a Maze

2. **Question:** Could the harmful microorganisms found on these surfaces cause a foodborne illness outbreak?

Answer: Yes.

3. **Question:** Were you able to make it through the maze and rid the students of the harmful microorganisms?

Answer: Yes. It is the expectation that students will be able to complete the maze and make it to the sink to wash away any harmful microorganisms with warm water and soap.



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Resource 3.6

Food Safety Crime Game

Answer Key

Clue 6 – Diary Entries

Note: There is no puzzle to solve here. However, students will need this information to figure out what caused the foodborne illness outbreak. The diary entries reveal the whereabouts of Ali, Beck, Isabelle and Dakota. Since all the children have foodborne illnesses, if one child missed an event, that event could no longer be the cause of the outbreak. Encourage students to add notes to their clue tracker to remember what they read in the diary entries.

Investigation Report

1. Question: Where did the foodborne illness outbreak occur?

Answer: *The outbreak occurred at the movie theatre.*

2. Question: When did the foodborne illness outbreak occur?

Answer: *It occurred on Wednesday, when Isabelle and her friends went to the movie theatre.*

3. Question: What evidence of a foodborne illness outbreak do you have?

Answer: *The movie theatre was cooking food and not keeping it hot. Keeping food in the food temperature danger zone for more than two hours allows harmful microorganisms to multiply quickly. Isabelle's diary entry confirms they all ate cold food that is supposed to be served hot at the movie theatre.*

Investigation Report

4. Question: How can we ensure this foodborne illness outbreak does not happen again?

Answer: *Answers will vary.*

Suggested Response

The movie theatre or any other business needs to make sure that hot food is kept hot. Food must be kept out of the food temperature danger zone to prevent harmful microorganisms from multiplying. Isabelle and her friends could have chosen not to order or eat foods they thought may have been contaminated with harmful microorganisms.

Related Resources

- To learn more about creating a classroom escape room, visit the Minds in Bloom website at <https://lbrd.ca/classescaperoom>

Extension Activities

Encourage students to cook at school and home using the four food safety steps. Have students document their cooking by taking photos or videos.

Students are encouraged to visit other online learning activities to learn about food safety, including these:

- Health Canada's *Interactive Tool on Food Safety* at <https://lbrd.ca/interactivetool>
- Partnership for Food Safety Education's *Kids Games and Activities* at <https://lbrd.ca/gamesandactivities>

Additional Resources

For more food safety information, visit these websites.

Health Canada

- Review the four food safety steps by visiting <https://lbrd.ca/foodsafetyandyou>
- Learn about general food safety tips by visiting <https://lbrd.ca/foodsafetytips>
- Learn more about poultry safety by visiting <https://lbrd.ca/poultrysafety>
- Watch a video to learn how to use a food thermometer by visiting <https://lbrd.ca/foodthermometers>
- Get tips on safe food storage by visiting <https://lbrd.ca/safefoodstorage>
- View the recommended safe cooking temperatures by visiting <https://lbrd.ca/safeinternaltemperatures>
- View the *Tricks to Not Get Sick: Food Safety for Kids* video by visiting <https://lbrd.ca/trickstonotgetsick>
- Learn about food safety for First Nations and Inuit by visiting <https://lbrd.ca/foodsafetyfirstnationsandinuit>

Partnership for Food Safety Education

- Learn how to pack a safe lunch by visiting <https://lbrd.ca/safelunch>
- Continue to learn about safe poultry handling by visiting <https://lbrd.ca/safepoultryhandling>

Public Health Agency of Canada

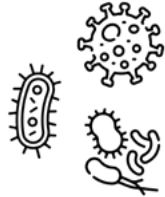
- Learn more about the benefits of handwashing by visiting <https://lbrd.ca/handwashing>
- Watch the *Hand-Washing Heroes* video by visiting <https://lbrd.ca/handwashingheroes>

Food Safety Definitions for Students


Use the following handout to remember the key terms we learned!



For each key term, read the definition and draw what it is describing.

| Term | Definition | Draw Your Understanding |
|---------------------|--|---|
| Bacteria | <p><i>Bacteria</i> are tiny organisms found all around us. You cannot see, smell or taste bacteria. Some bacteria are helpful and necessary for our bodies to work properly, while others can cause infections and make us sick.</p> | <p>Example:</p>  |
| Cross-Contamination | <p><i>Cross-contamination</i> is when harmful microorganisms are accidentally spread. They are spread when harmful microorganisms are transferred from one surface or food to another.</p> | |
| Disease | <p>A <i>disease</i> is an illness or sickness that prevents your body from working as it should. A disease can usually be recognized by signs and symptoms.</p> | |
| Foodborne Illness | <p>A <i>foodborne illness</i> is a sickness you get from eating food that has been contaminated by harmful microorganisms or toxins. This is also called food poisoning.</p> | |
| Fungi | <p><i>Fungi</i> are a group of microorganisms that includes moulds and yeasts.</p> | |
| Germs | <p><i>Germs</i> refer to microorganisms that can cause illness and disease. You cannot see, smell or taste germs.</p> | |

Food Safety Definitions for Students

| Term | Definition | Draw Your Understanding |
|----------------|---|---|
| Microorganisms | <p><i>Microorganisms</i> are really small organisms. You can only see them with a microscope. They include bacteria, viruses, parasites and fungi.</p> |  |
| Organism | <p>An <i>organism</i> is any living thing. Some organisms you can see, such as plants or animals, and some you cannot see, like microorganisms.</p> | |
| Parasites | <p>A <i>parasite</i> is an organism that lives on or inside another organism. They need a host to survive. Some parasites, like ticks, you can see. Other parasites, like bacteria and viruses, you cannot see, smell or taste.</p> | |
| Pathogens | <p><i>Pathogens</i> are any disease-causing microorganism, often called a “germ” or “bug.” You cannot see, smell or taste pathogens.</p> | |
| Toxins | <p><i>Toxins</i> are harmful substances that are produced by some living organisms. You cannot see, smell or taste toxins.</p> | |
| Viruses | <p><i>Viruses</i> are very tiny organisms that can make you feel sick when they move through your body. You cannot see, smell or taste viruses.</p> | |

Food Safety Achievement Badges



Food Safety Achievement Badges

