



United States Department of Agriculture

FOOD SAFE FAMILIES

ACTIVITY BOOK

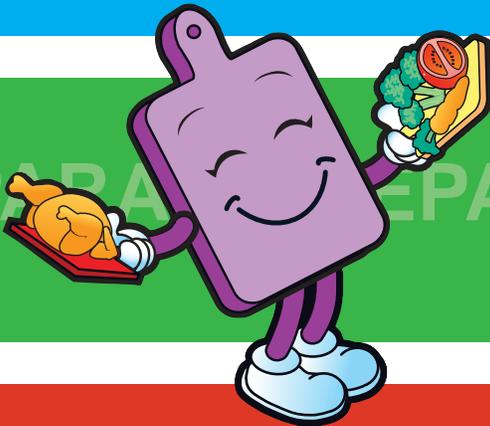


Food Safety and Inspection Service

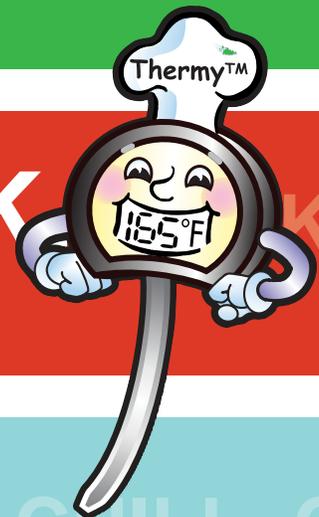
CLEAN. CLEAN. CLEAN. CLEAN.



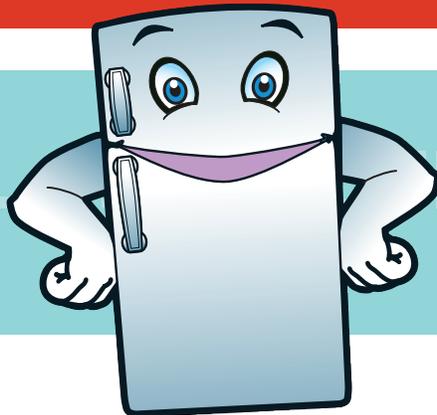
SEPARATE. SEPARATE. SEPARATE.



COOK. COOK. COOK. COOK.



CHILL. CHILL. CHILL. CHILL.



Hey Kids,

Food safety is important for you and your family. That's why you should always remember to keep your family safe from food poisoning! It is easy and fun to do if you follow these four important steps.

CLEAN!



WASH HANDS AND SURFACES OFTEN



SEPARATE RAW MEATS FROM OTHER FOODS



COOK TO THE RIGHT TEMPERATURE



REFRIGERATE FOOD PROMPTLY



This activity booklet will teach you and your family about food safety. Activities for four to six year-olds are at the beginning of the booklet, and science, technology, engineering, and mathematics (STEM)-based activities for seven to ten year-olds are towards the end of the booklet. Remember, fighting food poisoning is important for you and your family, so check your steps at FoodSafety.gov.

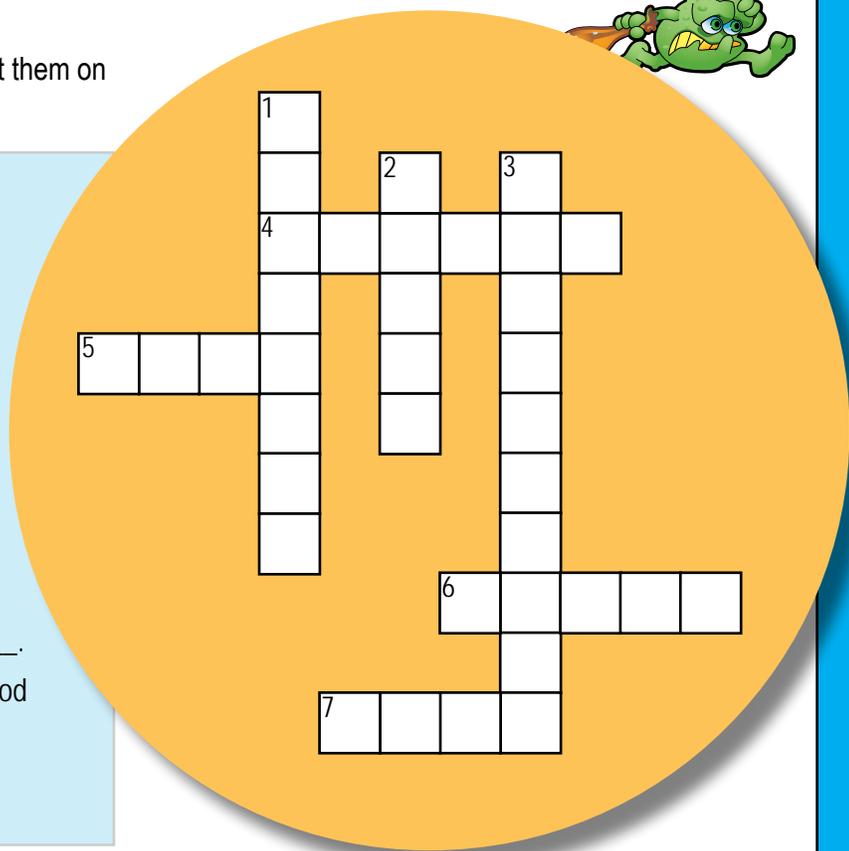
CLEAN!

BAC (bacteria) can be hiding just about anywhere: in your kitchen, on your plate, and even on your hands! The invisible enemy (BAC) can multiply and make you sick. But you can Fight BAC!® by following these important rules:

- Wash your hands and surfaces often.
- Wash hands with soap and warm water for 20 seconds before and after handling food.
- Wash fruits and vegetables thoroughly under running water just before eating, cutting, or cooking.
- Wash your hands:
 - Before you make or eat a snack or meal,
 - After playing with pets, and
 - After using the bathroom.
- Always use clean knives, forks, spoons, and plates.
- Cooked foods should not be placed on the same plate that held raw meat, poultry (chicken or turkey), or fish unless the plate has been washed first in hot, soapy water.
- Put food on clean surfaces. Never put your sandwiches or snacks on a dirty table or counter.
- Put backpacks and books on the floor. Don't put them on the kitchen table or counters.



Kids, complete this puzzle to help Fight BAC!® *



DOWN

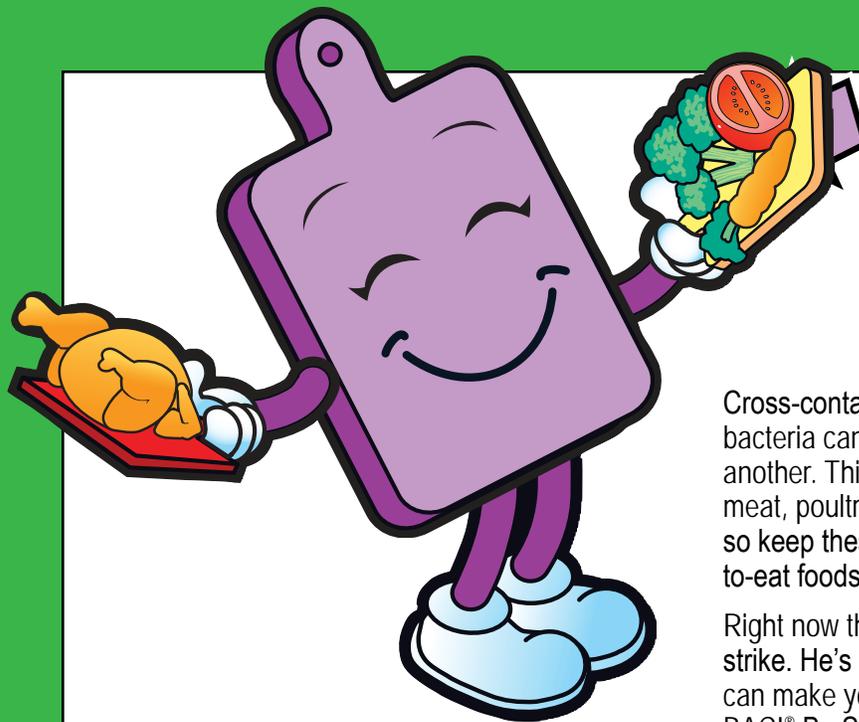
1. Place your _____ on the floor, not on the kitchen counter or table.
2. Always use clean knives, spoons, plates, and _____.
3. Use running tap water to rinse fruits and _____.

ACROSS

4. Place _____ foods on a clean plate.
5. Wash your hands with warm water and _____.
6. Counters should be _____ before you put food on them.
7. Wash your hands after playing with _____.

* Fight BAC!® and BAC! images, © 2005, Partnership for Food Safety Education.

Answers: Down 1-backpack 2-forks 3-vegetables
Across 4-cooked 5-soap 6-clean 7-pets



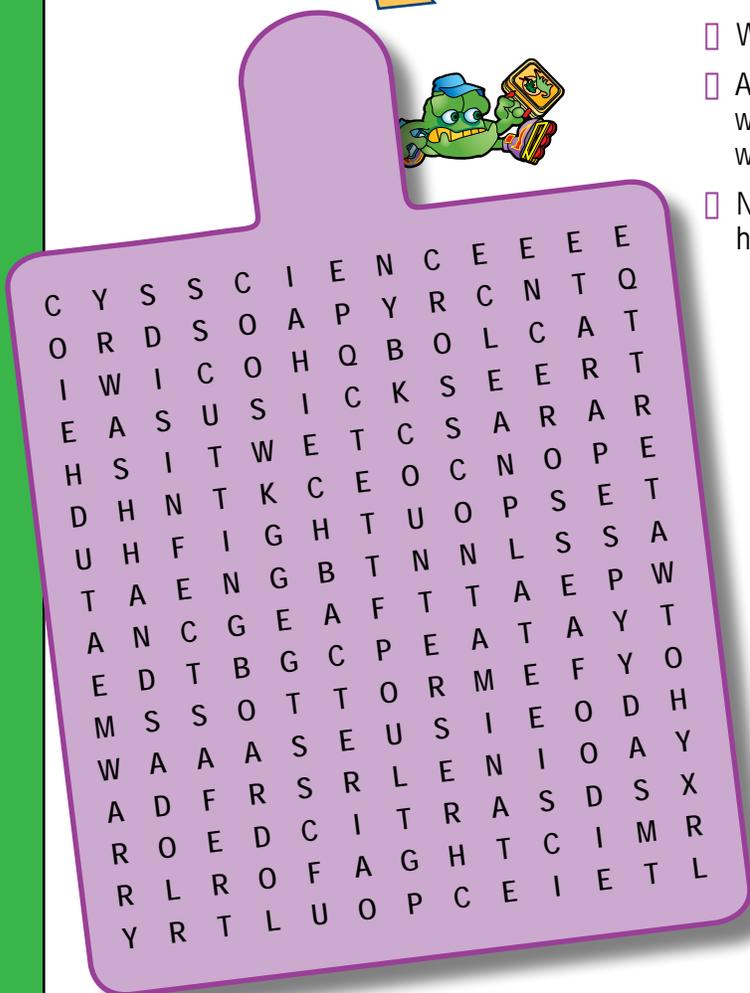
SEPARATE!

Cross-contamination is the scientific word for how bacteria can be spread from one food product to another. This is especially true when handling raw meat, poultry (chicken or turkey), eggs, and seafood, so keep these foods and their juices away from ready-to-eat foods!

Right now there may be an invisible enemy ready to strike. He's called BAC (foodborne bacteria) and he can make you sick. But you have the power to Fight BAC!® Be Smart. Keep Foods Apart – Don't Cross-Contaminate! Here are some things that you and your parents can do to Fight BAC!®

- Keep raw meat and poultry apart from foods that won't be cooked.
- Wash hands with warm soapy water for 20 seconds.
- Always wash cutting boards, dishes, and utensils with hot, soapy water after they come in contact with raw meat, poultry, eggs and seafood.
- Never place cooked food on a plate that previously held raw meat, poultry, and seafood.

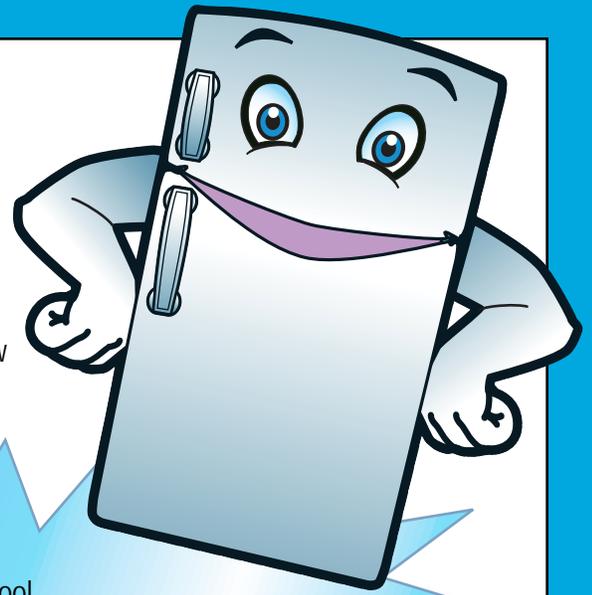
Kids, can you separate the Food Safety words from the jumbled letters?



WORD BANK

- | | |
|-------------|-------------------|
| RAW MEAT | BACTERIA |
| WASH HANDS | POULTRY |
| CLEAN PLATE | COUNTERS |
| HOT WATER | SCIENCE |
| SICK | SAFE |
| SOAPY | SEAFOOD |
| SEPARATE | CUTTING BOARD |
| FIGHT | CROSS CONTAMINATE |

CHILL!

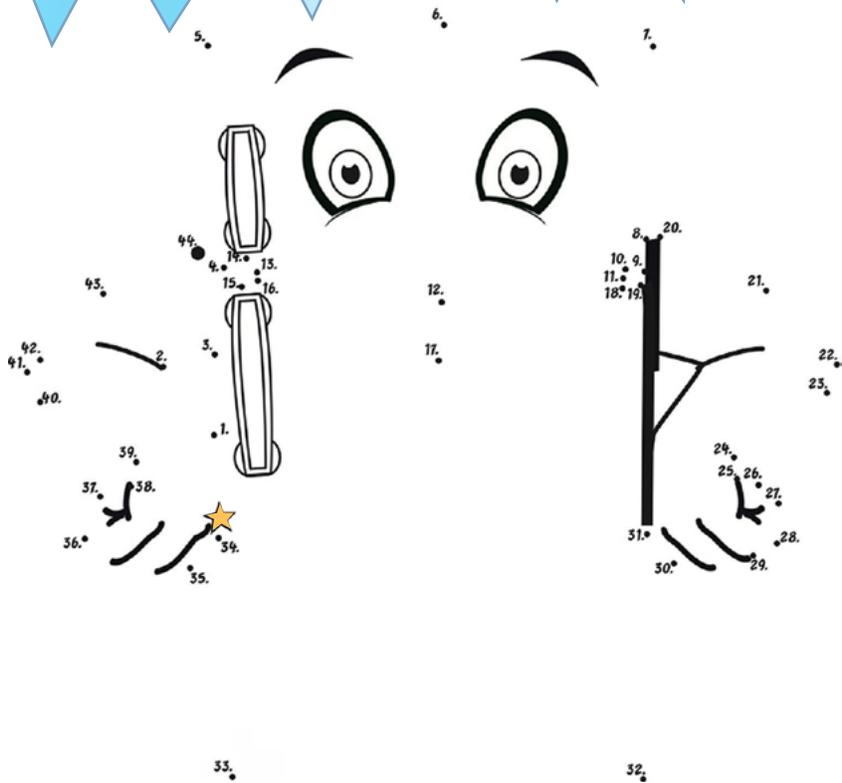


Keeping cold foods cold is one of the most important rules you can follow to help Fight BAC!® To make sure you are keeping your food safe at all times, check out these other ways you can Fight BAC!®

- ❑ Chill leftovers and takeout foods within 2 hours and keep the fridge at 40°F or below.
- ❑ Some foods that need to stay cold include:
 - ❑ Sandwiches or salads made with meat, chicken, or turkey;
 - ❑ Tuna and egg salad;
 - ❑ Milk, cheese, and yogurt;
 - ❑ Peeled or cut fruits and vegetables.
- ❑ Use an insulated lunch box or bag to keep food cold at school.
- ❑ If you have leftovers from lunch and you can't keep them cold, throw them away. This includes sandwiches made with deli meats and other "refrigerator type" foods, such as yogurt tubes or cheese sticks.
- ❑ Keep your lunch in the coolest place possible. Never leave it in direct sun.
- ❑ Add a frozen gel pack, frozen juice box, or use a thermos to keep food cold.



Kids, start at the star and connect the dots to reveal the hidden image.





Thermy™ Rules!

1. Always use a food thermometer when you cook.

A food thermometer will help you make sure your food has reached a high enough temperature to kill harmful bacteria and viruses.

2. The color of cooked meat—whether it's pink or brown inside—can fool you.

The only way to be sure cooked food is safe to eat is by using a food thermometer.

3. Place the thermometer in the thickest part of the food, away from any bones and fat.

4. Cook food to a safe minimum internal temperature.

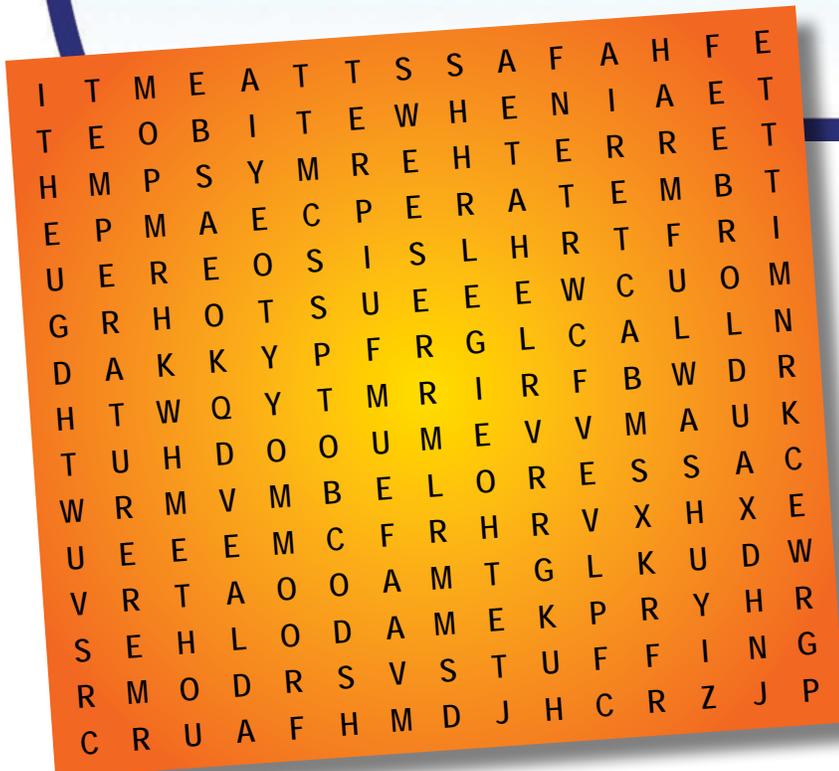
145°F - Beef, pork, veal, and lamb steaks, roasts, and chops, with a 3-minute “rest-time” after removal from the heat source.

160°F - Ground beef, pork, veal, and lamb. Egg dishes.

165°F - Chicken and turkey—whole, pieces, or ground. Stuffing and casseroles. Reheat leftovers.

5. Check the temperature in several places to be sure the food is cooked evenly.

6. Wash the food thermometer with hot, soapy water after using it.



BACTERIA	MEAT
BEEF	SOAP
CASSEROLE	STUFFING
COLOR	TEMPERATURE
COOK	THERMOMETER
FOOD	THERMY
HAMBURGER	VIRUSES
HARMFUL	WASH
LEFTOVERS	

When in Doubt, Throw it Out!

Remember: YOU have the power to

Fight BAC![®]

and keep your food safe!

Kids, unscramble each of the four ways to keep food safe.

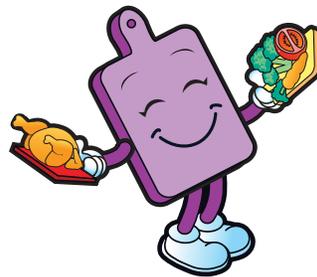
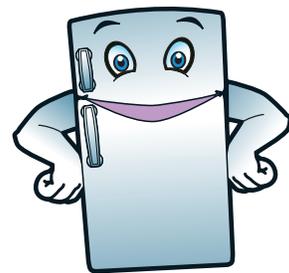


nalec

apretase

ckoo

liclh

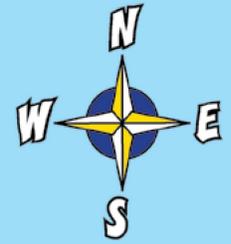


Then match the unscrambled word to the correct food safety messenger.

Answers: nalec-clean, ckoo-cook, lich-chill, apretase-separate

Cross the USA

The Food Safe Way



Thermy™ is on the road, fighting BAC!® – foodborne bacteria – across the USA!
Can you help Thermy™ Fight BAC!® from the west coast to the east coast?

Finish



Love Those Landmarks!

Test your Landmark IQ! Write the number in the circle by each landmark. Can you find them all?

1. Alamo
2. Bald Eagle
3. Cactus
4. City Skyline
5. Devils Tower
6. Drive-Thru Redwood Tree
7. Farmland
8. Gateway Arch
9. Golden Gate Bridge
10. Hoover Dam
11. Lighthouse
12. Mt. Rushmore
13. Natural Bridges
14. Niagara Falls
15. Orange Tree
16. Palm Trees
17. Snow-capped Mountain
18. Space Needle
19. Statue of Liberty
20. Steamboat
21. U.S. Capitol

How many BACs can you find lurking on this page?

Find your state on the map and draw a star ★ to show where you live.



United States Department of Agriculture
Food Safety and Inspection Service

BAC-Catcher Game

Folding Instructions

1. Cut along the dotted line.
2. Place the BAC-Catcher face down. Fold 2 corners together to form a triangle. Crease and unfold. Now fold the other 2 corners together, crease and unfold.
3. Now, fold each corner to the center point.
4. Turn the folded paper over and fold each corner into the center.
5. Fold the square in half. Unfold it and fold it in half the other way.
6. Using both hands, place your thumbs and index fingers under the flaps.

How to play

- This game is for 2 players. Ask the other player to pick one of the printed squares—for example, “Hot Stuff.”
- Open and close the BAC-Catcher in an alternating direction for each letter of the phrase H O T S T U F F (8 times).
- Ask the question closest to the phrase chosen and let the other player answer. Lift the flap to find the answer.
- Now give the BAC-Catcher to the other player. It’s your turn to answer.
- Alternate asking and answering until all the questions are answered . . . everyone wins by learning about FOOD SAFETY.

cut along dotted lines



Why did the milk like to hang out in the refrigerator?
Because it was cool!

Why did the chicken cross the road?
To stay away from the vegetables on the cutting board. He didn't want to contaminate them!

What's the difference between a gel pack and a confused bank teller?
One keeps the food in your lunchbox safe . . . and one keeps the lunchbox in the safe!

What do you get when you cross a tomato with raw meat?
Cross-contamination! Yuck — don't do it!

What do you get when you set a "zap," a "rotate" and "time"?
Food that's been microwaved the right way!

Knock knock. Who's there? Temper. Temper who?
Temperature counts! Cook your burgers to 160° and chicken breasts to 165°.

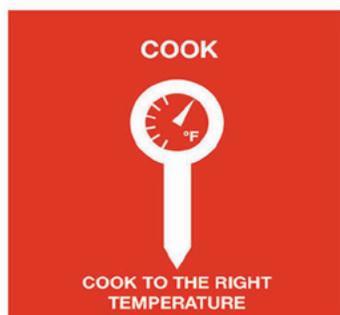
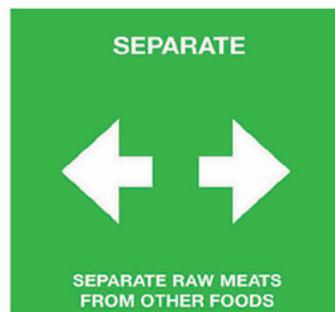
Clean hands! Soap and warm water. live fingers. when you mix 10
Clean them before! Get bacteria off your counters! Clean the food!

Knock knock. Who's there? Get back. Get back who?
Clean hands! Soap and warm water. live fingers. when you mix 10

ALL WASHED UP!

Family and Food Safety

The following pages include science and food safety activities for older children.



Check your steps at [FoodSafety.gov](https://www.foodsafety.gov)

CLEAN, SEPARATE, COOK, CHILL

Myth: Leftovers are safe to eat until they smell bad. Find the facts in the Chill Food Fact section below.

You may be surprised to learn that the kinds of bacteria that cause food poisoning do not affect the look, smell, or taste of food. And food poisoning can even send you to the hospital! Help keep your family safe with these four simple steps.



Wash hands and surfaces often; wash all fruits and vegetables under running water.

Food Fact: Illness-causing bacteria can be anywhere, so it's important that everything that touches food is clean, including hands, surfaces, cutting boards, and utensils.

Safety Tip: When washing your hands, wet them and apply soap. Scrub hands, wrists, and between fingers for at least 20 seconds (that's singing the "Happy Birthday" song twice). Rinse well under running water, and then dry.



Separate raw meat, poultry, seafood, and eggs from ready-to-eat foods.

Food Fact: Bacteria from meat, poultry, seafood, and eggs can spread to other foods. To prevent cross-contamination, keep these foods separate while shopping and when storing them in your fridge.

Safety Tip: Use separate cutting boards and plates for fruits and vegetables and for raw meat, poultry, seafood, and eggs.



Cook food to the right temperature and use a food thermometer to determine doneness.

Food Fact: Cooked food is safe only after it has been heated to a high enough temperature to kill harmful bacteria. Color and texture alone won't tell you whether your food is done, so always use a food thermometer.

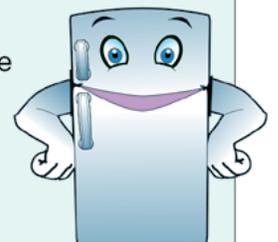
Safety Tip: Different foods have different minimum cooking temperatures. Print out this useful guide: [FoodSafety.gov/keep/charts/mintemp.html](https://www.foodsafety.gov/keep/charts/mintemp.html).



Chill raw meat and poultry, as well as cooked leftovers, promptly.

Food Fact: The kinds of bacteria that cause food poisoning do not affect the look, smell, or taste of food, so perishable foods need to be refrigerated within two hours, or within one hour if it's above 90° F outside.

Safety Tip: Thaw foods in the fridge, under cold running water, or in the microwave but never on the counter. Eat refrigerated leftovers within 3–4 days.



What does your family know about food safety?
 Play this game to test your family's food smarts.

FINISH FIRST

HOW TO PLAY: Place a game piece (such as a coin) on START. Take turns using one die to move the number of spaces you roll. Then follow the directions on the square where you land. If you answer a trivia question correctly, you can roll again (trivia answers below). The first player to reach FINISH wins.



The game board is a winding path with 15 squares. The path starts at a square labeled 'START' and ends at a square labeled 'FINISH'. The path is divided into five sections, each containing a trivia question and an action instruction. The colors of the squares are: Red, Blue, Green, Red, Blue, Green, Red, Blue, Green, Red, Blue, Green, Red, Blue, Green.

START

1. True or false? You can tell if meat is done just by looking at it. **Advance 2 spaces.**

You wash all vegetables, even ones you plan to peel.

2. True or false? Washing poultry will make it safer to eat. **Go back 3 spaces.**

You marinated chicken breasts in a bowl on the counter.

3. True or false? Leftovers should be put away within two hours. **Go back 2 spaces.**

You washed your hands without soap.

You use different cutting boards for raw meat and vegetables. **Advance 1 space.**

4. True or false? Leftovers are safe to eat unless they smell bad. **Go back 1 space.**

You left frozen meat on the counter to thaw.

5. True or false? Washing fruits and vegetables under running water is the best way to clean them. **Advance 2 spaces.**

You keep a magnet of safe internal temperatures on the fridge or download the FoodKeeper App.

You ate raw cookie dough that contained uncooked, unpasteurized eggs. **Go back 2 spaces.**

FINISH

- KEY:**
- Trivia Question
 - Go Back
 - Advance

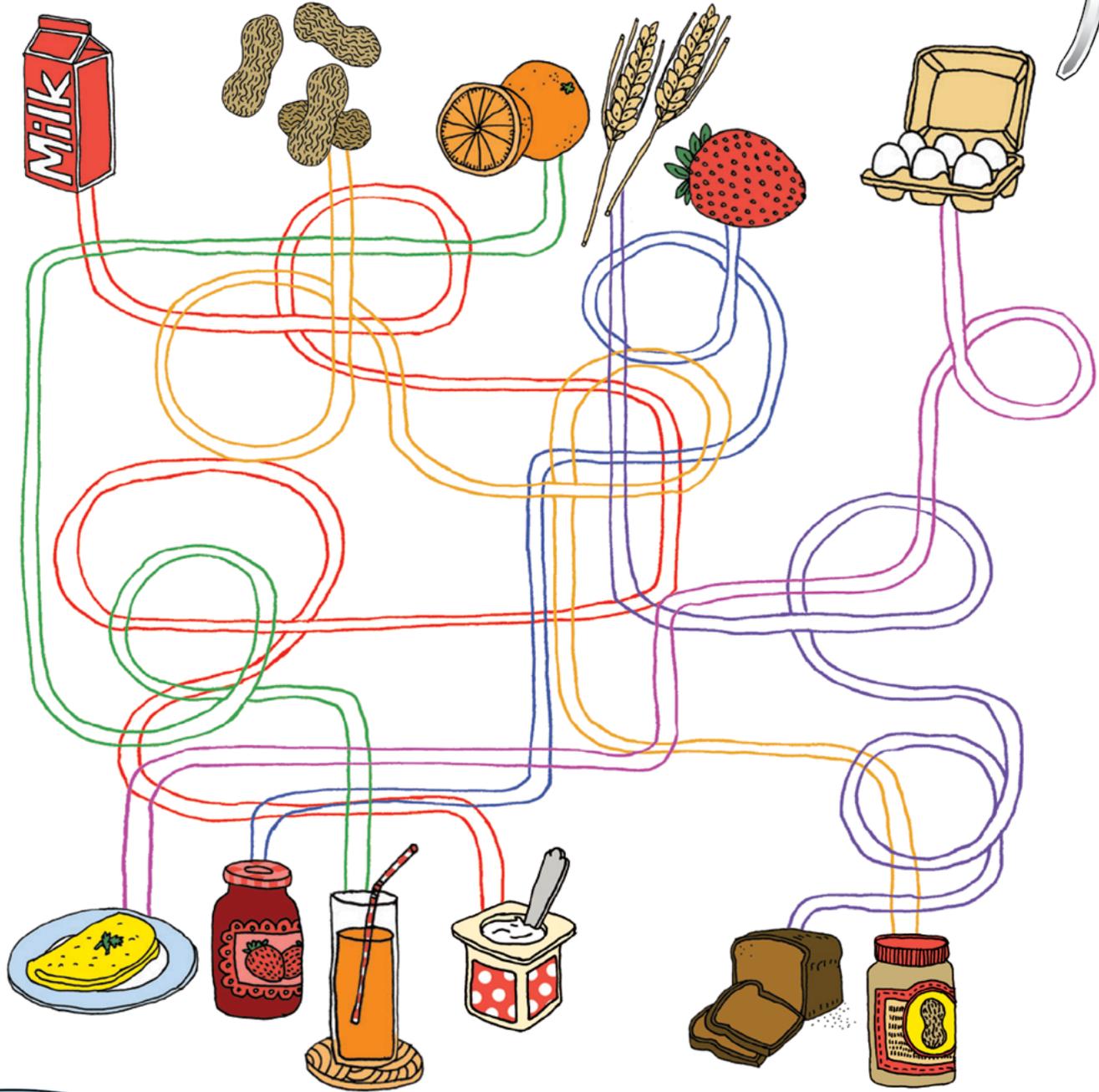


TRIVIA ANSWERS: 1. False. Always use a food thermometer to determine doneness. 2. False. Washing raw meat, poultry, seafood, or eggs can spread bacteria. 3. True. 4. False. You can't taste, see, or smell the bacteria that cause food poisoning. 5. True. There's no need to use soap or detergents.

MIX IT UP

Mixing and cooking foods can turn them into tasty treats. Untangle the paths to discover what delicious dishes these ingredients can become.

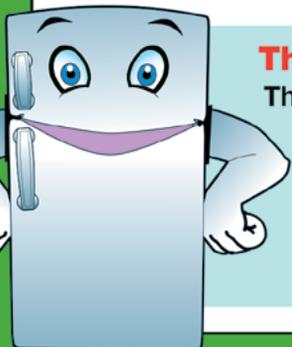
Tip: Use different colors for different foods.



Think About It

The four steps—clean, separate, cook, and chill—help make your tasty foods safe.

- How do the four steps make food safer to eat? See the family information sheet for answers.
- Can you name a good place to store each food on the maze? Download the FoodKeeper app to find out.



GET COOKING!

Inspire your kids to help out in the kitchen while teaching important food safety habits.

Crunchy Chicken Tenders and Honey Yogurt Fruit Salad

These chicken tenders are not only a good source of protein, but they're also easy to make. Serve them with a simple fruit salad for a winning combo. Make the fruit salad first to reduce cross-contamination.

Make the fruit salad:

INGREDIENTS

- 2 bananas
- 1 orange
- 1 apple
- 2 kiwi
- 1 cup low-fat plain yogurt
- 2 tablespoons honey



1.  **WASH** your hands.

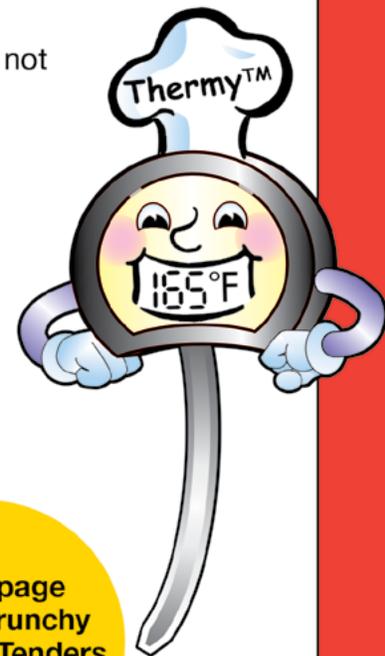


Safety Tip: Wash all fruits and veggies under running water—but not meat, poultry, or eggs.

2.  **WASH** the bananas, orange, apple, and kiwi. Peel the bananas, orange, and kiwi.

3.  **ASSIST** child in chopping the fruit.

4.  **COMBINE** yogurt and honey in a medium bowl. Mix well, and then add the chopped fruit. Stir to combine. Place in refrigerator until chicken tenders are ready.



Safe Cooking Resources

- » Minimum Cooking Temperatures Chart:
<https://www.fsis.usda.gov/safetempchart>
- » Storage Time for the Refrigerator and Freezer:
<https://www.foodsafety.gov/food-safety-charts/cold-food-storage-charts>

Turn the page
for the Crunchy
Chicken Tenders
Recipe! 

Make the chicken tenders:

INGREDIENTS

- 1 pound boneless, skinless chicken breast
- ¾ cup plain panko bread crumbs
- 1½ teaspoons dried basil
- 1 teaspoon garlic powder
- 1 teaspoon dried parsley
- 2 tablespoons freshly grated Parmesan
- 2 large egg whites
- 2 tablespoons fat-free milk
- Olive oil



1.



PREHEAT the oven to 400°F. Spray a dark baking sheet with cooking spray. Cut chicken breast into 8 to 10 strips.



Safety Tip: Use separate cutting boards and plates for produce and for raw meat, poultry, seafood, and eggs.



Safety Tip: Always wash your hands with soap for 20 seconds after handling raw eggs, poultry, meat, or seafood. Clean all surfaces that these foods have touched too.

2.



In a small bowl, **MIX** the bread crumbs, 1 teaspoon basil, garlic powder, parsley, and Parmesan. In a second small bowl, mix the egg whites, milk, and remaining ½ teaspoon basil.

3.



Working with one piece at a time, **DIP** the chicken tenders into the egg mixture and then into the bread crumbs. Dip the tenders into the egg mixture and bread crumbs a second time to create an additional coating. Place the tenders on the prepared baking sheet. Wash hands.



Safety Tip: Color and texture alone won't tell you whether your food is done, so always use a food thermometer.

4.



DRIZZLE olive oil over the chicken and bake for 10 minutes. Flip tenders, drizzle with more oil, and bake until golden brown, about 10 minutes. Test for doneness with a food thermometer. Chicken should be cooked to a temperature of 165°F.

5.



SERVE chicken tenders with fruit salad. Serves 4.



Safety Tip: Get any leftovers into the fridge within two hours (one hour if the temperature outside is over 90°F) to prevent the growth of illness-causing bacteria.

Science and Food Safety



Check your steps at [FoodSafety.gov](https://www.foodsafety.gov)

Educational Activities to do with Your Teacher

Reading: Informational Text

Grade 2: Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

Grade 3: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Grade 4: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

Writing: Research to Build and Present Knowledge

Grade 2: Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

Grade 3: Conduct short research projects that build knowledge about a topic.

Grade 4: Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Speaking and Listening: Presentation of Knowledge and Ideas

Grade 2: Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.

Grade 3: Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Grade 4: Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

Objective: Students will learn about the role food scientists play in keeping food healthy and safe, and will develop a presentation about illness-causing bacteria.

Time: One class period, plus additional research time

Materials: *Explore Food Science* activity sheet (Lexile 780L); *Tiny But Mighty* activity sheet; access to the Internet

GETTING STARTED

1 Tap into what students already know about careers in the sciences by asking students to name jobs that they think might require scientific knowledge and equipment. Record students' responses on the board and provide additional examples.

2 Share with students that some scientists study food in order to find the best ways to make healthy and tasty products that are also safe from any bacteria that might make people sick. These scientists are called

food scientists. They do important work developing new foods, cooking methods, packaging materials, and systems to feed a planet full of more than 7 billion people.

USING THE ACTIVITY SHEETS

3 Distribute copies of the *Explore Food Science* activity sheet and allow students time to read the informational text and complete the bacteria-labeling activity on the page. Point out the word "bacterium" underneath "Name That Shape." Explain that bacterium is used when you are talking about one type of bacteria, while bacteria is plural and is used for more than one bacterium.

Grade 2 teachers: Have students write bacteria shape names as: sphere, oblong, and spiral. **Grade 3 teachers:** Choose the approach appropriate for your classroom.

Grade 4 teachers: Have students write scientific shape names as: coccus, bacillus, and spirillum.

Answers: 1. oblong/bacillus, 2. sphere/coccus, 3. spiral/spirillum.

4 Gather the class to review the activity sheet. Ask student volunteers to read aloud each of the four food safety steps listed at the bottom of the page (Clean, Separate, Cook, Chill) and describe the science fact involved in each step.

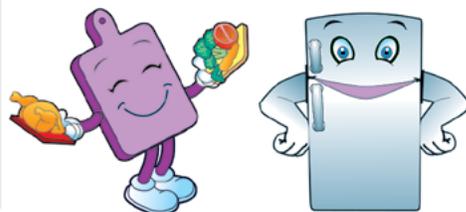
5 Distribute copies of the *Tiny But Mighty* activity sheet. Explain that in order to keep people safe from food poisoning, food scientists have to first understand what causes it. Invite students to select one of the following bacteria known to cause food poisoning as the topic of their research: *Salmonella*, *Campylobacter*, *E. coli*, or *Listeria monocytogenes*. **Grade 2 teachers:** Have students complete the activity with a family member as homework. **Grade 3 teachers:** Choose the approach most appropriate for your classroom.

Grade 4 teachers: Have students complete their research independently and then write 1 to 3 paragraphs incorporating the information they recorded on the activity sheet into a piece of informational writing.

WRAP-UP

6 Once students have completed their research, divide them into groups according to the bacteria they researched. Ask each group to prepare a short presentation covering the questions provided on the *Tiny But Mighty* activity sheet.

7 Share your learning with the school community by creating a food safety bulletin board focusing on Clean, Separate, Cook, and Chill, and displaying student bacteria research.



EXPLORE FOOD SCIENCE

The next time you snack on a box of crackers, take a moment to think about the food scientists who helped make those crackers tasty, healthy, and safe to eat.



What Does a Food Scientist Do?

Food scientists study all kinds of foods. They find the best ways to prepare foods and package them. Food scientists design factories where foods are made, and find ways to keep food safe. They also create new foods.

What Are Bacteria?

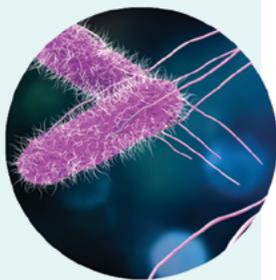
Bacteria are a type of microbe. Microbes are the oldest form of life on Earth. They are made of one single cell. Our bodies are made of millions of cells. Bacteria and microbes are so small they cannot be seen with the naked eye. That's why scientists use microscopes to study bacteria.

Food scientists help keep our food healthy and safe.

There are three main shapes of bacteria: sphere (also called coccus), oblong (also called bacillus), and spiral (also called spirillum).

Good Bacteria, Bad Bacteria

Bacteria are everywhere. The good news is that most bacteria are harmless to people. Some kinds of bacteria even help our bodies work better. For example, the bacteria found in yogurt help people digest food. Harmful bacteria, however, can make people sick. When harmful bacteria get into our bodies through food and make us sick, it is called *food poisoning*.



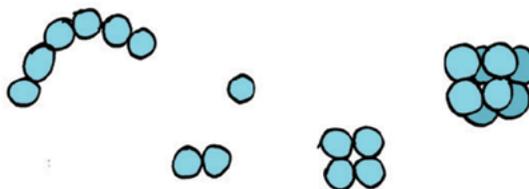
Salmonella as seen through a microscope.

Name That Shape

Label each bacterium with the name of its shape.



1. _____



2. _____



3. _____

HOW CAN YOU BE FOOD SAFE?

Food poisoning can be serious. These four simple steps can help you keep your food safe and prevent food poisoning at home.

- 
CLEAN: Wash hands with soap and water for 20 seconds before cooking and eating.
- 
SEPARATE: Keep raw meat away from ready-to-eat foods.
- 
COOK: Learn the safe internal temperature to kill harmful bacteria.
- 
CHILL: Put leftovers in the fridge within two hours.

TINY BUT MIGHTY

1 What type of bacteria will you study?

2 What is the shape of this type of bacteria?

3 Draw or paste a picture of it in the space below.

4 What is a source of this type of bacteria?

5 How do you avoid getting sick with this type of bacteria?

6 How long do people usually stay sick with this type of bacteria?



KEEP YOUR FAMILY SAFER FROM FOOD POISONING



Check your steps at FoodSafety.gov

Visit AskUSDA.gov or FoodSafety.gov
for food safety information.

Call the USDA Meat & Poultry Hotline:
1-888-MPHotline (1-888-674-6854)

FDA Food Information Line
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