

Fight BAC!®

Dear Educator,

Harmful bacteria in food — “BAC” — is an invisible enemy that, according to the Centers for Disease Control and Prevention, causes serious illness for one in six Americans each year, many of them children under the age of 10. The non-profit Partnership for Food Safety Education (PFSE) is pleased to present this downloadable classroom program that will supplement PFSE’s existing online curriculum and equip students in grades 3-5 and their families with the tools to **Fight BAC!**®



Educational Program

Program Objectives

- To raise awareness of the dangers of microbiological pathogens that can cause food poisoning.
- To provide students and families with examples of how to avoid illness by practicing safe food handling.
- To highlight PFSE’s role as a provider of food safety resources for educators and consumers.

Target Audience

This program is designed for students in grades 3-5 and their families.

Program Components

Available for download at www.fightbac.org/kids and at www.ymiclassroom.com/food-safety:

- This teacher’s script, standards alignment information, and Food Safety Education Basics sheet*
- Two reproducible student activity sheets*
- A wall poster for the classroom
- PowerPoint food safety quiz*

**Also posted in Spanish*

How to Use This Program

Download and review the activity sheets and poster before photocopying the sheets for each student. Send the activities home to share the PFSE resources with parents. Help students read aloud the definition of *pathogen* from the classroom dictionary, and use the pronunciation guide on the poster as you discuss how microscopic bacteria can contaminate food when safe food handling practices are not followed. (Point out to students that Norovirus is the one non-bacterium listed.)

Included as downloadable PDFs are two fun and easy-to-implement classroom activities; a PowerPoint quiz in both English and Spanish, and a “Ten Least Wanted Pathogens” poster. And PFSE is pleased to unveil a new iPhone game app designed especially for kids titled **Perfect Picnic**. Available for free at the Apple App Store, **Perfect Picnic** offers an appealing game format that makes food safety awareness fun to learn.

Please contact us at www.ymiclassroom.com/food-safety to provide feedback on the program. We depend on your input to continue providing free, quality educational programs that make a real difference in the classroom.

Sincerely,

Dr. Dominic Kinsley
Editor in Chief, Young Minds Inspired



The non-profit Partnership for Food Safety Education delivers trusted, science-based behavioral health messaging and a network of resources that support consumers in their efforts to reduce the risk of food poisoning. www.fightbac.org



Visit YMI at www.ymiclassroom.com to send feedback and download more free educational programs. For questions, contact us toll-free at 1-800-859-8005 or by email at feedback@ymiclassroom.com.



Fight BAC![®]

Food Safety Education Basics

Food Safety is Important!

Kids are disproportionately affected by serious foodborne illness. Of the 48 million reported foodborne illnesses confirmed annually in the United States, half are among children under 15 years of age. That's millions of sick kids each year!

At the same time, research tells us that adults tend to think a serious illness will not happen to their family. Finally, we also know from research that American adults are not consistent in following recommended safe food handling practices — even when they are being observed by food safety researchers. So, adults could be unknowingly passing on unsafe practices to the kids in their care.

Kids are in the Kitchen!

A recent study in Canada that looked at home meal preparation activities of fifth graders found that 33% of the kids reported helping with meal preparation at home at least once a day. And another 33% said that they helped 1-3 times per week! Kids are in the kitchen now...and are forming lifelong habits of food handling and hand hygiene.



Here are the Fundamentals of Home Food Safety

For more information on home food safety, go to www.fightbac.org or www.foodsafety.gov.

CLEAN: Wash hands and surfaces often.



Bacteria can be spread throughout the kitchen and get onto hands, cutting boards, utensils, countertops, and food.

SEPARATE: Don't cross-contaminate.



Cross-contamination is how bacteria can be spread. When handling raw meat, poultry, seafood, and eggs, keep these foods and their juices away from ready-to-eat foods. Always start with a clean scene — wash hands with warm water and soap and wash cutting boards, dishes, countertops, and utensils with hot water and soap.

COOK: Cook to proper temperatures.



Food is safely cooked when it reaches a high enough internal temperature to kill the harmful bacteria that cause illness.

CHILL: Refrigerate promptly.



Cold temperatures slow the growth of harmful bacteria. Keeping a constant refrigerator temperature of 40 °F or colder is one of the most effective ways to reduce the risk of foodborne illness.

The non-profit Partnership for Food Safety Education is the creator and steward of **Fight BAC![®]** and the four core messages of Clean, Separate, Cook, and Chill. PFSE is the only public-

private collaborative that focuses exclusively on the prevention of food poisoning at the point of consumer handling and preparation in the home. Join our e-card list at www.fightbac.org.

Activity 1

Fight BAC!® at Picnic Park



Read the directions aloud with students, then guide them to relate each scene in the picture to one of the four safety rules shown on the sheet.

Answers:

1. **D.** Chill. Foods and beverages should be kept chilled at 40 °F.
2. **C.** Cook. Always use a food thermometer to ensure that meats are cooked to a safe internal temperature.
3. **A.** Clean. Hands, surfaces, *and* utensils should be kept clean.
4. **D.** Chill. Foods and beverages should be kept in a cooler.
5. **B.** Separate. Using different spatulas for cooked and raw hamburger is essential for safe food preparation.
6. **B.** Separate. Keep raw meats away from other foods to prevent cross-contamination.
7. **A.** Clean. Holding a ball indicates dirty hands. Always wash hands before eating.



Now read the following scenarios aloud. Challenge students to think about the safety rules, then share their answers in a class discussion.

1. When you slice lemons for lemonade, what should you do first? (Wash hands and work surfaces.)
2. After the party, Kenny ate some potato salad that had been sitting on the table for more than two hours. The next day his stomach hurt and he threw up. Why? (Harmful germs that got into the potato salad had time to grow while it sat on the picnic table. If food that could spoil has been out of refrigeration for more than two hours, toss it!)

Finally, make students aware of the new iPhone game app called **Perfect Picnic**, available free from the App Store, where players **Fight BAC!**® while building and growing a successful Picnic Park!



Activity 2

Cook, Chill, or Toss?



Read the directions aloud with students, then review the answers:

1. **B.** Chill it. Sliced apples must be chilled. Unsliced apples are safe to eat unchilled if washed before eating.
2. **B.** Chill it. After being served, cold cuts should be put back into the cooler or refrigerator.
3. **C.** Toss it. The potato salad should have been refrigerated immediately after it was served.
4. **A.** Cook it now, to avoid contamination by bacteria.
5. **A.** Cook it now. Once taken out of the refrigerator or cooler, raw chicken and raw hamburger should be cooked. If you aren't going to cook them right away, put them back in the refrigerator.
6. **C.** Toss it. Cooked meat and other foods should not be left out for more than 2 hours.

Have students work in groups to create more leftovers scenarios for which the “Cook, Chill, or Toss” decision must be made. Groups might be assigned different themes, such as birthday parties or specific holidays. Then host “Cook, Chill, or Toss” contests between groups.



Resources

- **Perfect Picnic** iPhone game app (free from the App Store)
- www.fightbac.org/kids
- www.teamfoodsafety.org
- www.ymiclassroom.com



Fight BAC!®

A Health and Science Program for Grades 3-5

The activities in this program meet the following National Health and Science Standards:

National Health Education Standards

- **Standard 1**

Students will comprehend concepts related to health promotion and disease prevention.

- **Standard 2**

Students will demonstrate the ability to access valid health information and health-promoting products and services.

- **Standard 3**

Students will demonstrate the ability to practice health-enhancing behaviors and reduce risks.

- **Standard 7**

Students will demonstrate the ability to advocate for personal, family, and community health.



National Science Education Standards

- **Science as Inquiry**

- **Grades K-4**—Use data to construct a reasonable explanation.

- **Grades 5-8**—Think critically and logically to make the relationships between evidence and explanations.

- **Organisms and Environments**

- **Grades K-4**—All organisms cause changes in the environment where they live. Some of these changes are detrimental to the organism or other organisms, whereas others are beneficial.

- **Structures and Function in Living Systems**

- **Grades 5-8**—Disease is a breakdown in structures or functions of an organism. Some diseases are the result of intrinsic failures of the system. Others are the result of damage by infection by other organisms.



The **Perfect Picnic** game app aligns to the standards above and to the following Technology Foundation Standard.

- **Standard 3—Technology Productivity Tools**

Students use technology tools to enhance learning, increase productivity, and promote creativity.



Fight BAC!® at Picnic Park

It's a perfect day for a picnic! But are these picnickers Fighting BAC! by practicing safe food handling rules so they don't get food poisoning? For each scene shown, write the letter of the food handling rule shown below to which it relates in the box next to the number.



3 **Scrubbing up to start cooking**



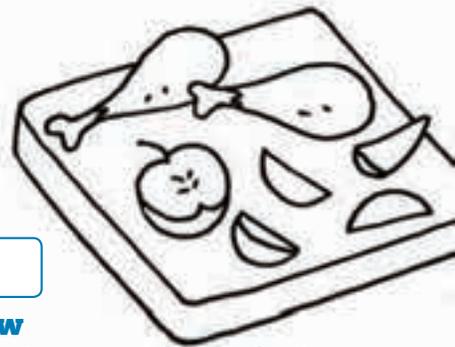
4 **Storing a sandwich**



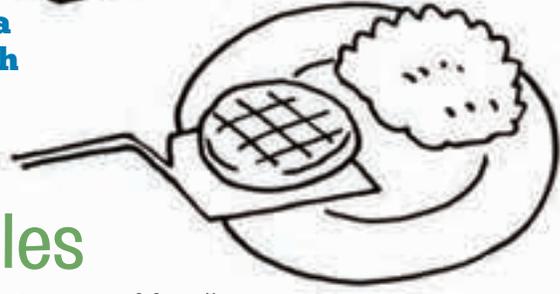
1 **Potato salad on a hot day**



2 **Using a food thermometer**



6 **Raw chicken and fresh fruit on a cutting board**



5 **Cooked and raw hamburger on a platter**



7 **Carrying a ball and full plate to the table**

The Four Safe Food Handling Rules

Breaking these rules could mean a nasty case of foodborne illness for picnickers at the park. And you wouldn't want that if you're in charge!



A. Clean
Wash hands and surfaces often.

B. Separate
Don't cross-contaminate.



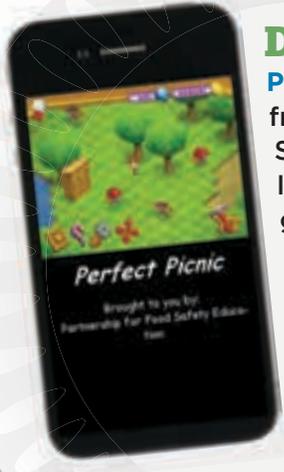
C. Cook
Cook to proper temperatures.

D. Chill
Refrigerate promptly.



Dear Parents,

Your child is learning about home food safety practices through this free educational program from the Partnership for Food Safety Education (PFSE) and curriculum experts Young Minds Inspired (YMI). **Fight BAC!**® educates families about how to reduce the risk of food poisoning. Review this sheet with your child and learn more by visiting www.fightbac.org.



Download
Perfect Picnic free from the App Store. **Perfect Picnic** lets kids sharpen game strategy skills while managing potential food safety problems in their own virtual picnic park!



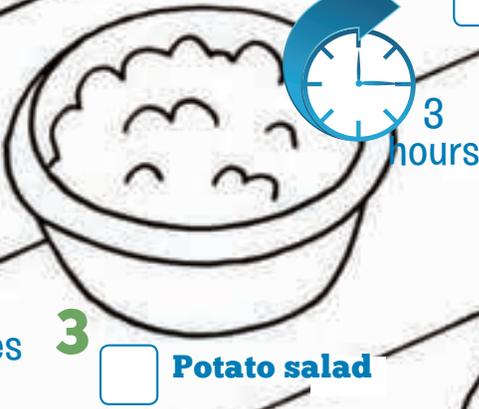
Cook, Chill, or Toss?

BAC Fighters keep an eye on the clock. They know that time + warm temperature = growth of harmful bacteria on food. Foods should not be left out of refrigeration for more than two hours. So, food that sits out for two hours or more (one hour on a particularly hot day) should be tossed into the trash! Can you manage your picnic foods so that no one at your picnic gets sick? For each picture, write the letter of the correct answer in the box from these choices:

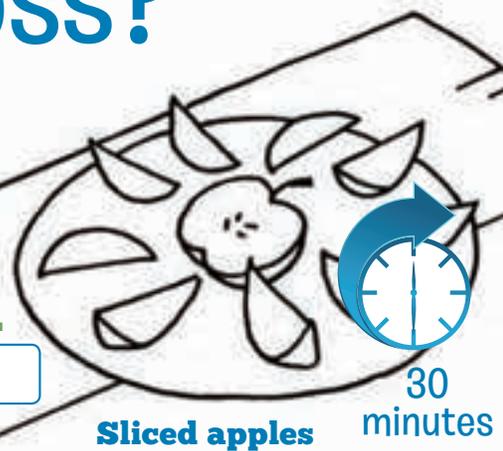
A. Cook it now! B. Chill it! C. Toss it!



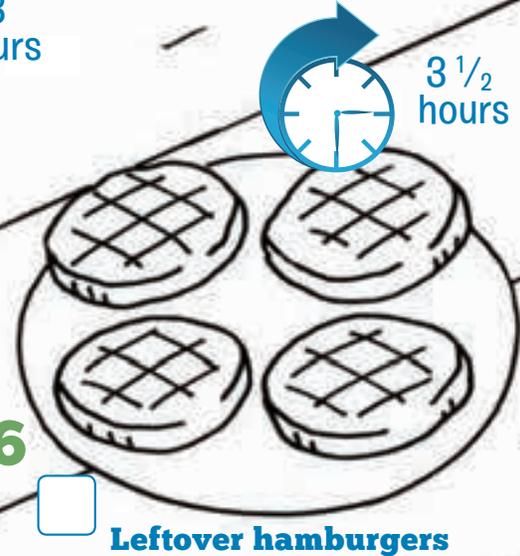
2 **Leftover cold cuts**



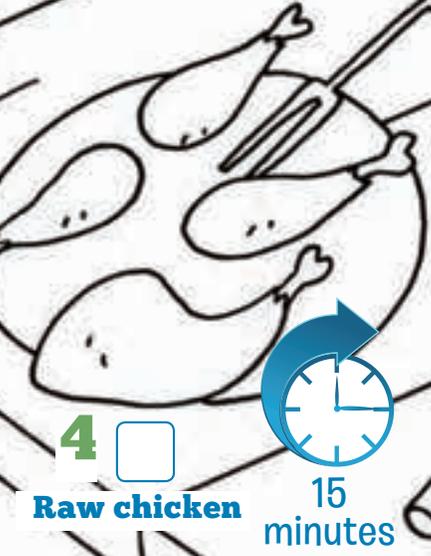
3 **Potato salad**



1 **Sliced apples** 30 minutes



6 **Leftover hamburgers** 3 1/2 hours



4 **Raw chicken** 15 minutes



5 **15 minutes**

Dear Parents,
Learn more about food safety and how to **Fight BAC!**® at www.fightbac.org. Visit www.ymiclassroom.com/food-safety for a PowerPoint quiz to check your knowledge of home food safety.



Download Perfect Picnic free from the App Store. **Perfect Picnic** is designed especially for kids, and lets players sharpen game strategy skills while practicing food safety.