

Welcome to **YOUR GAME PLAN** *for* **FOOD SAFETY**

Foodborne Illness Is Serious!

More and more, foodborne illness is in the news. According to the Centers for Disease Control and Prevention, foodborne illnesses in the United States affect millions of people and cause thousands of deaths every year. An estimated 800,000 illnesses occur in children under the age of 10.

Teaching Food Safety Is Important . . .

The good news is that there are many things children and families can do to help ensure that their food is safe to eat — at home, at school, and even when eating out. All they need is a basic awareness of proper food handling, cleanliness practices, and the importance of temperature in controlling/killing bacteria. And as an educator, you play a big role in helping to “spread the word . . . not the germs!”

That’s where *Your Game Plan for Food Safety* fits in. As part of the Partnership for Food Safety Education’s nationwide Fight BAC!™

Campaign, this program is specially designed for use with fourth, fifth and sixth graders.

. . . and It’s Easy!

Your Game Plan for Food Safety helps you teach food safety in a way that is both easy for you and exciting for your students. Using the inquiry approach to learning, the program inspires children to discover the science behind food safety as they experiment . . . investigate . . . and explore.

Let’s Get Started!

**TEACHER-DESIGNED
CLASSROOM-TESTED**

CHILL

Cooling Counts!

Outcome:

The temperature of the water in the shallow container will cool more quickly than in the tall (large or deep) container. This simulates how important it is to store leftovers in shallow containers in the refrigerator for quickest cooling.

If food is left in the danger zone (temperatures between 40 °F/4 °C and 140 °F/60 °C), bacteria multiply more quickly.

Integrated Learnings:

Science learning:

- Use scientific method: predict, hypothesize, observe, conclude.
- Evaluate learning to determine which containers are best for leftovers.
- Measure temperature over time.
- Use data collected to predict best leftover storage system.

Mathematics:

- Measure different temperatures.
- Graph collected data.

Language arts:

- Write the scientific reason why water cooled faster in different shaped containers. Include discussion of surface area in conclusion statement.

Social Studies:

- Investigate methods of storage in countries that use different types of technology (e.g., drying meat, irradiation).

Optional Followup

- Design fictional storage containers for different types of leftovers.

CHILL

Yeast Balloon Blow-Up

Outcome:

The yeast microorganism is used because it has growth properties that are similar to bacteria.

The yeast solution placed in the cold water bath simulates what happens to bacteria when it is chilled. It will not grow.

The yeast solution in the warm water bath simulates what happens to bacteria when left out, particularly in a warm place. This yeast will thrive within the danger zone (see thermometer on page 13) and will grow. As the yeast grows it bubbles, creates gas and causes the balloon to inflate. Bacteria also thrive on sugar so the sugar solution makes the growth more rapid. Take advantage of this opportunity to talk about “good bacteria” with your students.

Integrated Learnings:

Science learning:

- Observe bacteria growth.
- Evaluate why it’s so important to avoid bacterial growth in food.

Mathematics:

- Compare degrees in Fahrenheit and Celsius.
- Measure liquid in milliliters, temperature in Fahrenheit and Celsius.

Language arts:

- Participate in oral and written share of observations and conclusions.