Objectives

- To name ways germs get into foods and practice safe food handling rules.
- To name hot, cold, and room temperatures as safe or unsafe for food, at home, at the store, and eating out.
- To name protein foods and safe food handling rules.
- To look for places to store foods safely.

Temperatures

Germs are both good and bad. Some good germs live in the gastrointestinal tract of the body to help make vitamins. Good germs are also used to make some foods, such as pickles. Bad germs that make you sick are carried by dirt. Some bad germs eat sugar and decay teeth. Most germs need food, moisture, and warm temperatures to grow. Animal protein foods (milk, meat, fish, poultry, eggs) provide food and moisture for harmful bacteria to grow at warm temperatures in the danger zone from 40-160°F (4-71°C). Boiling temperatures kill most germs. Bacteria do not grow at cold temperatures, but they are not destroyed.
Germs and Dirt

3 years. Name dirt and places where germs live and hide.

Where do you find dirt?
garden
floor
trash cans
sinks
spills
garbage
dirty dishes
ridges and crevices in skin, hair, fingernails
body fluids: runny nose, sneeze, cuts and scratches
pets
clothes
money

Use a microscope/magnifying glass to look for dirt where germs hide.

What do you do to prevent germs from spreading?

Prop Box—waiter/waitress
apron; hat (hair covering)
trays
scrub cloth
kitchen utensils
scraper
table service
nonbreakable dishes
straws
napkins
tickets
mop and sponge
toy foods

3-5 years. Tell about germs.

Locate stories/books about germs for the book area and story time.
What is a germ?
a good germ?
a bad germ?

4-6 years. Make a germ squirm:

Name unsafe habits that spread germs. Name safe habits that get rid of germs.

Cut out pictures or make label cards to discuss germs in these settings:
handling money
changing diapers
petting an animal
finding food with a bite out of it
catching bugs
toileting
drinking from family water jug
foods licked by pet
tasting from serving/cooking spoon/dish
sneezing on foods
finding food on floor, ground, or playground
food with hair or bugs on it

Why is each of the above unsafe? What would you do? Is licking a safe way to get things clean?

Make safety labels for food handling in the classroom and other environments.
—hand washing after toileting, playing outside, or sneezing
—clean clothes/apron and clean kitchen

What pictures or symbols mean safe or unsafe to you? to others?

4-6 years. Classify ways to fight germs when eating out.

How do salad bar sneeze guards protect food from grownups? from children?
How do waiters/waitresses in restaurants keep hands clean?
Who should wear plastic gloves?
When are plastic gloves no longer safe?
When is licking fingers safe?
What do workers wear at fast food restaurants to keep hair out of food? (hats/hairnets)
Clean Food Handling Practices

3 years. Name and demonstrate steps for washing hands, utensils, and food.

- What things are needed for washing hands? utensils? food?
  1. Water
  2. Rubbing/Scrubbing
  3. Soap (not for food)

- What items are needed for hand washing at home? in a restaurant? on trip?
- Practice washing hands and foods.
- Practice washing lettuce, potatoes, carrots.
- Which foods must be washed?
  Garden potato vs. canned potatoes
  fresh fruits/vegetables vs. canned vegetables
  milk/cheese.
- What can you do to be clean when working with food? (wash hands, wear hat and apron)

3 years. Show clean dish and food handling when storing food and setting the table.

- How can you carry food utensils without touching eating or drinking surfaces?
- Show how to carry dishes, glasses, and silverware.
- Practice table setting and storing dishes safely.
- Sort utensils touching only handles.
- How can you carry 1 fork? 2 forks? 3 forks?

3-5 years. Name rules for cleaning up spills.

- Spilled water or crumbs on tables, counters, and floors can be cleaned up by children if the spill is manageable; but not if there is broken glass; hot grease; or sticky mess.
- Give children sponges, brushes, squirt bottles, dust pans, brooms and mops to practice cleaning floor, walls, counter, and table tops in the classroom at snack and at meal time. Use label cards for clean/dirty, floor/table equipment. Praise them for their attempts even if an adult must clean again.
- What spills can kids clean up? Adults? (use label cards for child, for adult)

Creative Play—How do places in the community keep dishes clean?

Tour local kitchens, cafeterias, and restaurants. Look for ways food work areas and eating areas are kept clean. (scrape dishes, rinse dishes, hot water, soap, storage)

Clean Dish Prop Box

- plastic/metal tub(s)
- rubber spatulas
- brushes
- squirt bottles
- play food

4-6 years. Safe practices for food safety and cleaning supplies.

- Learn symbols such as “Mr. Yuk” for poison identification in the kitchen; in the bathroom.

4-6 years.

- Why are some cleaning supplies for the floor? for the table? and others for food?
- What pictures symbolize opposite concepts such as safe/unsafe? clean/dirty? hot/cold?

Permission to use the Mr. Yuk poison warning symbol given by Children’s Hospital of Pittsburgh, 1992.
Food Storage at the Grocery, at Home, and in Restaurants

3 years. Name places foods are stored/kept

▲ What foods are stored in the cabinet? refrigerator? freezer?
▲ How do these things get hot/cold?

3-5 years. Using thermometers

▲ Use thermometers to label/classify temperature of food storage places.

**Hot:**
summer time
cooking temperatures
boiling/burning
grilling
radiators

**Warm:**
room temperature
(buying, transporting, preparing, eating)

**Cold:**
Freezing
refrigerator
freezer
winter
ice

▲ Collect different kinds of thermometers and practice reading temperatures in various settings (outside the house, in refrigerator, in the sun, on ice).
▲ At what temperature/place should foods be stored? Use examples from food guide pyramid.

3-5 years. Name protein foods you eat.

Most protein foods spoil easily at room temperature. (Meat, fish, poultry, eggs, milk, cheese, yogurt—**Keep them cold!**)

▲ Plan a classroom shopping trip to the play grocery with containers and bags.
▲ Should frozen foods be bought first or last?
▲ Should protein foods be bought first or last?
▲ Where will each purchase be stored?
▲ Collect food pictures or containers for play area.
▲ Practice safe food storage in refrigerators and cabinets. Use pictures of real refrigerators and cabinets. Mix up containers and allow children to correct your “storage mistakes.”

4-6 years. Classify ways to check foods as safe or unsafe.

▲ What foods spoil while shopping? during preparation? and during storage? How can you tell?
▲ **Never taste a food that looks** (moldy, bruised, wilted, dirty), **smells** (putrid, sickening), or feels (slimy, dry) **funny.**
▲ What foods seem spoiled but are safe to eat? (mint with green center, limburger cheese, curdled gravy, sour cream, cottage cheese)
▲ Look at, smell, and feel moldy bread or cheese or soured lunchmeat or ground beef. Is this food safe to eat? Why or why not?

Prop Box—carried food—picnic safety

<table>
<thead>
<tr>
<th>picnic basket</th>
<th>juice</th>
</tr>
</thead>
<tbody>
<tr>
<td>hard cooked eggs</td>
<td>cookies</td>
</tr>
<tr>
<td>meat sandwich</td>
<td>napkins</td>
</tr>
<tr>
<td>peanut butter sandwiches</td>
<td>paper or plastic ware</td>
</tr>
<tr>
<td>ground or table covering.</td>
<td></td>
</tr>
</tbody>
</table>

▲ How can protein foods be kept cold?