

MAKING THE CONNECTIONS TO FOOD SAFETY

Grade 1

Food Safety



in partnership with



*This resource has been developed by the
Science Teachers' Association of Ontario /
l'association des professeurs de sciences de l'Ontario
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Food Safety

This resource will look at the Science of how and why our food needs to be safe.
It's filled with fun ways of learning the do's and don'ts of food.

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in partnership with



Food Safety Posters



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Personal Safety, and Injury Prevention



Big Ideas

Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, and outdoors.

Inquiry Skills Used

This is a research activity using various primary reference sources.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils. Teachers are reminded to use only round tipped scissors.

Background

There are many types of bacteria. Some are good and some can be harmful. Good bacteria is used by the food industry to create foods, such as yogurt or cheese. Some bacteria can make you quite ill. Foodborne illness is not long-lasting, but in some cases, it can be severe, even deadly. Foodborne illness occurs when a person eats food contaminated with microscopic, disease-causing organisms, such as bacteria, viruses, and parasites. Illness and symptoms will vary according to the type and amount of these organisms present in the food. The most common symptoms may include stomach cramps, nausea, vomiting, diarrhea, headache and fever, or any combination of these. These symptoms can occur several hours or several days after eating contaminated food.

What You Need

- <http://www.fightbac.org/fightbac-downloads/brochures-and-fliers>
- Crayons, markers, pencil crayons
- Round tipped scissors

What to Do

1. Download various posters, brochures, and fliers from the following website:
<http://www.fightbac.org/fightbac-downloads/brochures-and-fliers> or
<http://www.canfightbac.org/cpcfse/en/downloads/>
2. Students can colour the posters which they can take home, or post the completed posters.

Where to Go from Here?

Students can make three-dimensional work using alternative art supplies. Students can also research good bacteria that are used to produce food in the food industry, such as cheese, yogurt or bread.

STSE Links

Bacteria are used to help clean our drinking water in water filtration plants. Ask the students what would happen if we eliminated all bacteria. Would we still be able to survive?

Cross Curricular Connections

Language Arts: Write a story about a bacterium and its life vest.

Visual Arts: This activity also incorporates visual arts when producing two-dimensional art, and could also incorporate three-dimensional works of art that communicate a specific idea.

Being Food Safe



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a creative activity using primary and secondary reference sources.

Background

Most students know that bacteria are found on all surfaces. There are many different kinds of bacteria. Before beginning this activity, students should have prior knowledge about bacteria. To gain prior knowledge, the students could do any one of the activities introducing bacteria, such as Frankenstein My Bacteria on page 27.

What You Need

- Pencil
- Paper
- Costumes
- Computer

What to Do

1. Read home safety ideas to the students. This can be found at the following website:
<http://www.mapleleaf.com/en/market/food-safety/food-safety-at-home/>
2. Have the students create plays from the food safety rules: “Clean”, “Separate”, “Cook”, “Cool”.
3. Working in groups, the students will then present the plays to the class.
Example of a play—Characters are Meat, Bac, Student, Doctor. Meat is left out on a counter. Bac comes and dances on the meat, then hides. Student arrives and eats the meat. Student gets very sick and goes to the doctor. Doctor says food safety rule: Always chill meats to avoid getting sick.

Where to Go from Here?

Create costumes and posters and invite families to visit and watch the plays.

Cross Curricular Connections

Visual Arts: Make costumes.

Music: Create songs or sing songs that reflect their play.

Health: Demonstrate an understanding about how to stay safe and avoid illness.

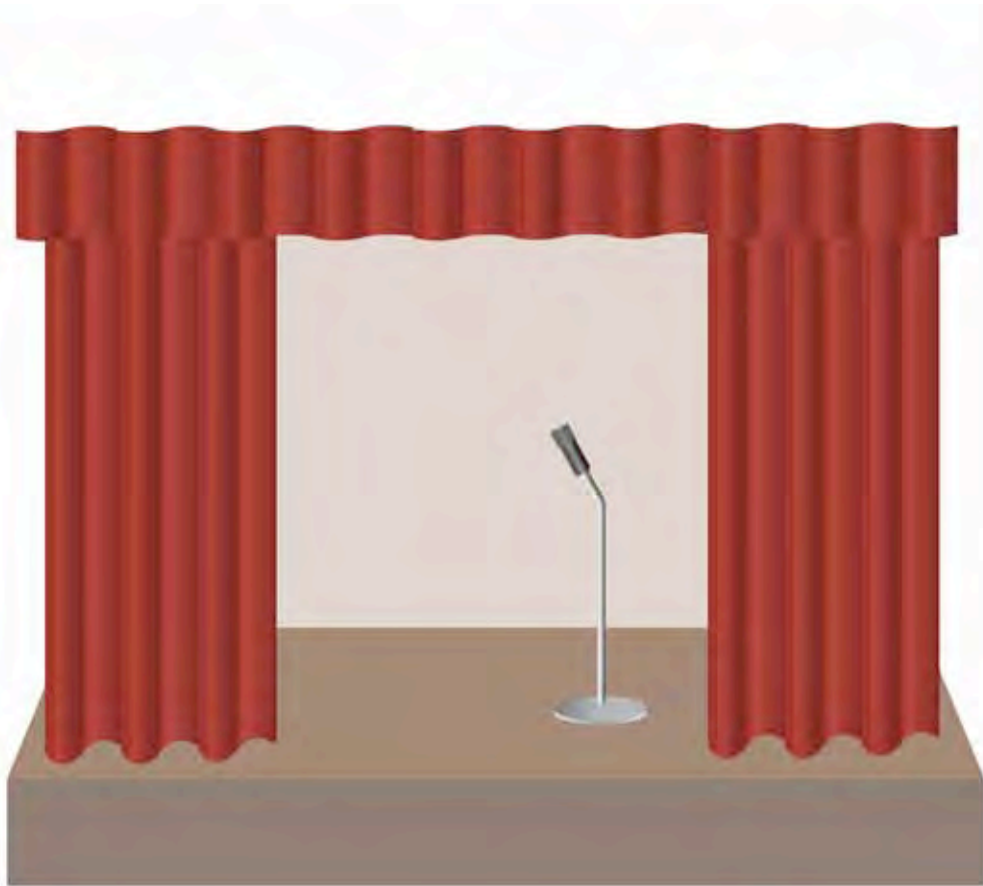
Credit Where Credit is Due

The information is from Maple Leaf Foods website.

<http://www.mapleleaf.com/en/market/food-safety/food-safety-at-maple-leaf/food-safety-pledge/>

Food safety tips to keep in mind:

1. Keep hand washing soap in the kitchen so it is easily accessible. Wash your hands with warm soapy warm water for at least 20 seconds prior to starting meal preparation and during any new stage, from preparation to meal time.
2. Keep a kitchen clean. Keeping your kitchen clean and tidy can reduce the chance of bacteria build-up.
3. Keep raw foods separated from cooked and ready-to-eat foods to avoid cross-contamination.
4. Carefully monitor and check “best before dates” and package integrity of perishable products. Do not keep products beyond expiration date printed on the packaging.
5. Keep separate cutting boards, utensils, and platters for raw meat, poultry, and seafood and for ready-to-eat/cooked foods.
6. Keep cold foods cold (4°C or below).
7. Keep hot foods hot (60°C or above).
8. Keep a working meat thermometer on hand to check the internal temperatures of cooked foods. Always cook meat to the safe internal temperatures.



Bacteria Puppets



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Personal Safety, and Injury Prevention



Big Ideas

Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, and outdoors.

Inquiry Skills Used

This is a research activity using discovery and exploration.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils. Teachers are reminded to use only round tipped scissors.

Background

Canada's food supply is considered one of the safest in the world and Canadians should be proud. However, food safety doesn't just happen. Many people play a vital role in keeping our food safe, for example farmers, fishermen, processors, grocers, and you. According to Health Canada, an estimated 11-13 million Canadians are affected each year by foodborne illness— commonly known as food poisoning. Many cases go unreported because the symptoms resemble other digestive illnesses. Handling food safely in the home, in processing plants, and everywhere food is sold is the key to prevent foodborne illness. This activity will explain how quickly bacteria can grow on food given the ideal environmental conditions.

What You Need

- Construction paper
- Round tipped scissors
- Glue or tape
- Crayons, pencils or markers
- Brown paper bags
- One BAC template for each student



What to Do

1. Print the story of BAC found on the following website: http://www.canfightbac.org/cpcfse/en/_pdf/hiresen.pdf
2. The teacher should prepare one puppet to use as a demonstration while reading the story.
3. Read the story of BAC to the class using the BAC puppet as a prop.
4. The teacher should print one BAC character template, found on the website, for each student.
5. Have the students make their own BAC puppet.
Using the template, the students make the BAC puppet by gluing the template on a brown paper bag, and then decorate the template.
6. Allow the students to talk to each other about what they have learned from the story using their puppet.
7. Reread the story with the students responding as BAC might respond.
8. Discuss with the students what BAC likes and why they should be careful about BAC.

Where to Go from Here?

Students can make more than one type of bacteria and describe what food they like to eat. The students can also make good bacteria and tell the class how a bacterium helps us produce different foods, e.g., cheese, yogurt, sourdough bread, salami on pizza, etc.

STSE Links

What would happen to the world if we eliminated all bacteria? Are all bacteria bad for you or can some also be good? What would happen if we had no bacteria in our intestines?



Cross Curricular Connections

Language Arts: Read the book, "You Build It Bacteria Farm" by Luann Colombo.

Visual Arts: Each student could produce their own bacterial puppet and decorate it with various colours. This activity would incorporate visual arts when producing a two-dimensional work of art that communicates a specific idea.

Presenter: (scary, deep voice)

Once upon a time, there was an ugly little germ.

His real name was...B - A - C - T - E - R - I - A but his friends called him BAC, for short.

BAC: (scraggly voice)

I wish I were a nicer guy, but I am yucky and here's why: I like to hide on hands and food.

I'm germy, green, and very rude!

Presenter:

Now, ever since he was a little germ, BAC would spend his days wandering around, finding places for himself and his friends to hide. There were lots of places for germs like BAC and his friends to hang out! Germs like the things you carry around every day, like your backpack, or your food before you wash or cook it, or if you forget to put it in the refrigerator - and most of all, your hands! Everybody knows that germs are everywhere!

BAC:

There are places that I love: Your shoes . . . your books . . . your baseball glove! Your hands . . . the counter . . . on your food. They put me in a germy mood!

Presenter: (stage whisper to children)

Now, the one thing you may NOT know is that even though BAC and his other germy friends are everywhere, it's EASY to get rid of them!

BAC: (to presenter)

Wait, wait, wait; don't let them know! If they find out . . . I'll have to go!

Presenter: (stage whisper)

More about that later . . .

(regular voice)

So anyway, one day, BAC was out looking for a fun, new place to hide and invite all his other germy friends over to play. He ESPECIALLY liked hanging around with children who didn't know anything about keeping their food safe from germs. He knew that if they didn't know about him, they didn't know how EASY it was to chase him away!

BAC:

It's easy to get rid of me. You can do it, don't you see? But many children just don't know. That's great for me so here I go!

Presenter: (stage whisper)

BAC knew that if the children found out about him, they would want to get rid of him. After all, he was a GERM and no one likes GERMS! Suddenly, he saw a group of children in a kitchen. As he snuck in, it looked like they were doing lots of things that were going to make it easy for him to hide!

BAC:

Oh, boy! This is gonna be GREAT!

Presenter:

They didn't put their milk back in the refrigerator . . .

BAC:

Yippee. Yippee. I hate cold!

Presenter:

They forgot to rinse their fruits and vegetables with water . . .

BAC:

Dirty snacks! Just what I like!

Presenter:

Oh, no! They were putting their backpacks and smelly sneakers on the counter!

BAC:

Oh, boy! Putting their stuff on the counter where food belongs!

Presenter:

And worst of all, they were about to eat WITHOUT WASHING THEIR HANDS!

BAC:

Ya - ay - ay!!!

Presenter:

BUT WAIT! Suddenly, the children remembered what they had learned in school that day! They started out by washing their hands . . .

BAC:

Oh, no! Say it isn't so!

Presenter:

Next, they rinsed their fruits and vegetables with water!

BAC:

Oh, no! I don't like clean snacks!

Presenter:

They took their dirty stuff off the counter! They washed the counter, too!

BAC:

A clean counter?! Where will I go???

Presenter:

And finally, they put all the cold food, like milk, back in the refrigerator when they were done!

BAC:

Brrrrr! I feel a terrible cold coming on!!!

Presenter:

All of a sudden, BAC's excitement was gone. HE HAD NOWHERE TO HIDE ANYMORE!!!

BAC:

That's it for me. I'm done, it's true! 'Cause now you know just what to do.

Put food away . . . clean counters, too;

Rinse fruits and veggies through and through!

And one last secret now I'll tell. Just wash your hands and wash them well! Soap and water do the trick.

They make you clean but make me S - I - C - K . . .

Presenter:

So now you know the true story of BAC! Those children had discovered that there were EASY ways to get rid of him. But they also had to remember, even though they got rid of BAC, there were other germs out there, too! So they made up a rhyme that they could say each time they washed their hands. Maybe you can learn it, too!

Presenter:

Say it TWO TIMES through, every time you wash your hands. That way, the germs will all go away!
It goes like this:

**WE WASH OUR HANDS TO KEEP THEM CLEAN . . .
THE CLEANEST HANDS YOU'VE EVER SEEN!
USE SOAP AND WATER THAT'S THE WAY
TO CHASE THOSE YUCKY GERMS AWAY!**

(At the end of the presentation, as BAC gets chased away, you may stick the red symbol on his chest - or have one of the children do it. When you're done, remember to distribute badges to your new "deputies"!)

The End

Clean the Counters



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a resource and hands-on activity using primary and secondary reference sources.

Safety Considerations

Students should be reminded of the rules for using computers correctly. Bleach is a poison and should only be handled by adults.

Background

Students should know that bacteria are on all surfaces. There are many different kinds of bacteria. A cleaning agent, such as bleach, is needed to kill bacteria. Water alone will not kill bacteria.

What You Need

- Class computers or computer and projection

What to Do

1. Discuss with the class that there are different types of bacteria. The only way to kill bacteria is by engaging in correct washing practices.
2. Go to website <http://www.inspection.gc.ca/english/corpaffr/educ/gamejeu/cleannete.shtml>
3. As the class plays the game, they will learn about the different types of bacteria.
Allow the students to have time to play the game.
4. Brainstorm with the class about the game just played.
 - Why was it important to have bleach in the container?
 - What happened if there was not enough or no bleach?
 - Why is it important to kill bacteria?

Where to Go from Here?

Allow the students enough time to learn more about different types of bacteria while on the website.

Cross Curricular Connections

Media Literacy: Allow the students to learn more about bacteria and how it can harm or benefit them.

Using Google images, look up pictures of different types of bacteria.

Health: Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others.



Credit Where Credit is Due

Video supplied by Canadian Food Inspection Agency.

Colouring for Cleanliness



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a hands-on exploratory activity using primary and secondary resource materials.

Safety Considerations

Students should be reminded of the rules for using scissors correctly. Teachers are reminded to use only round tipped scissors.

Background

Not all students know that there are bacteria on all surfaces and how important it is to clean food, counters, and themselves to avoid contracting bacteria.

What You Need

- Booklet
- Markers, crayons or pencil crayons
- Round tipped scissors

What to Do

1. Ask the students if they know what and where bacteria are.
2. Discuss with the students the importance of washing to ensure bacteria is removed from surfaces so that it will not cause them to become sick.
3. Have the students colour the pages from the booklets found on the following websites:
http://www.canfightbac.org/en/_pdf/colouring_page.pdf and
<http://www.canfightbac.org/cpcfse/images/lgbacgame.gif>
or the pages provided in this activity.
4. If using http://www.canfightbac.org/en/_pdf/colouring_page.pdf cut on dotted line.
Staple or bind booklets together.

Where to Go from Here?

Have students write on the back of the colouring page why it is important to wash items. Have students identify then draw or write the names of items that do not need to be washed first.

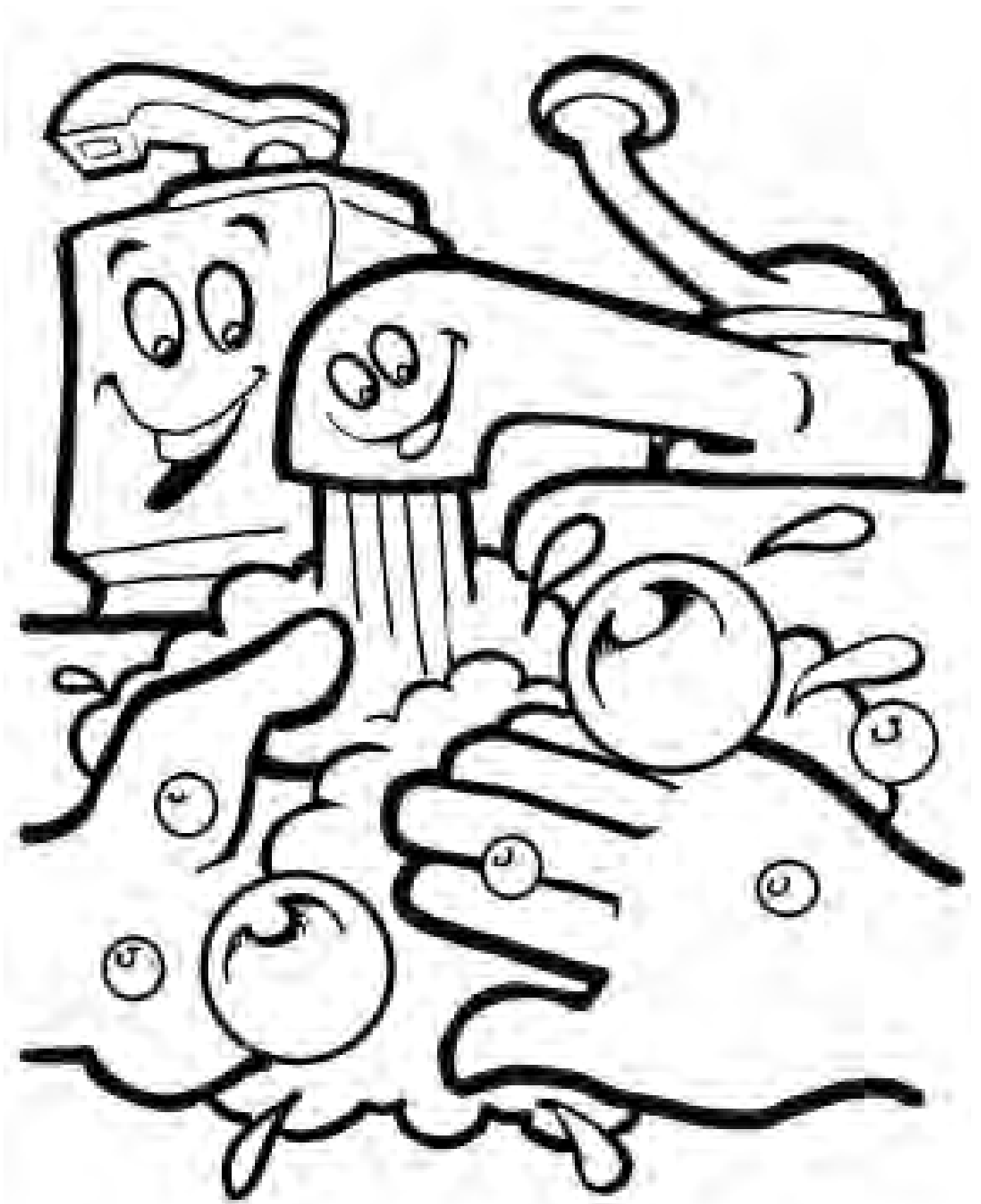
Cross Curricular Connections

Art: Colour

Health: Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others.

Credit Where Credit is Due

Compliments of the Canadian Partnership for Consumer Food Safety Education.



Wash your hands with soap and water, too.



Wash your fruits and vegetables and make them clean for you.



Put food in the refrigerator. Do it right away.



Keep counters clean where food is prepared and chase those germs away.

Bacteria Are Everywhere!

Circle all the bacteria in this picture.



TM/MC Canadian Partnership for Consumer Food Safety Education
Le Partenariat canadien pour la salubrité des aliments

Cooling Video



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a resource and hands-on activity using primary and secondary reference sources.

Safety Considerations

Students should be reminded of the rules about using computers correctly.

Background

Most students know that there are bacteria on all surfaces and how important it is to clean food, counters, and themselves before eating.

What You Need

- Class computers or computer and projection
- Worksheet
- Markers, crayons or pencil crayons

What to Do

1. Ask students if they have ever gone on a picnic.
2. Discuss with the students what items someone might take on a picnic. Ask them if there are any items they would not take on a picnic and why. E.g., Would you bring uncooked bacon?
3. Watch video about preparing food for a picnic.
<http://www.inspection.gc.ca/english/fssa/concen/tipcon/picnice.shtml>
4. Ask the students questions about the video.
 - Should food be cooled before being put in containers for a picnic?
 - Should you use the same plate to put cooked and uncooked food on?
 - Should you always check the temperature of meat to ensure that it is cooked properly?
5. Give students the attached worksheet about picnics and tell them to colour the items that should be taken on a picnic.



Where to Go from Here?

Discuss with the students what cross-contamination means.

Cross Curricular Connections

Art: Colour

Health: Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others.

Credit Where Credit is Due

Images supplied by Google images.

Video supplied by Canadian Food Inspection Agency.

Colour the items that you should bring on a picnic.



FAQs for BAC



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Personal Safety, and Injury Prevention



Big Ideas

Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, and outdoors.

Inquiry Skills Used

This research activity uses inquiry skills.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils.

Background

In general, foodborne illness is not long-lasting, but in some cases, it can be severe, even deadly. Foodborne illness occurs when a person eats food contaminated with microscopic, disease-causing organisms, such as bacteria, viruses, and parasites. Illness and symptoms will vary according to the type and amount of these organisms present in the food. The most common symptoms may include stomach cramps, nausea, vomiting, diarrhea, headache and fever, or any combination of these. These symptoms can occur several hours or several days after eating contaminated food.

What You Need

- BAC puppets
- Computer

What to Do

1. Download FAQ section from page 8 of the Fight BAC document found on the following website:
http://www.canfightbac.org/cpcfse/en/_pdf/hiresen.pdf
or use the attached copy of the FAQ.
2. Cut out strips of the questions and have students present the questions to the teacher who will read the question strips.
3. Ask the students to answer the questions.
4. Use the BAC puppet as a prop while the teacher answers the questions.



Where to Go from Here?

Students could invite a community helper, grocer, butcher or restaurant owner to attend the school, and ask them questions about food safety practices.

STSE Links

What special precautions does a firefighter have to take when helping an injured person?

Cross Curricular Connections

Language Arts: Write a story about a bacterium and its life.

Visual Arts: This activity also incorporates visual arts when producing two- or three-dimensional works of art that communicate a specific idea.

Credit Where Credit is Due

This activity is based on Maple Leaf Foods' safety website under <http://www.canfightbac.org/en/>

“Real Kid” Questions: Here are some typical questions heard throughout the testing of the program, along with The Partnership’s suggested responses:

Question: My hands look clean. Do I have germs on them now?

Answer: Probably. Germs are everywhere. But as long as you wash your hands really well with soap and water before handling food or eating, you’ll get rid of them.

Or, BAC could respond (in his germy voice):

“Yes - my friends and I are everywhere. But whatever you do, don’t wash us away with soap and water. We hate that!”

And you can finish with: *“Now wait a minute BAC, you can’t fool them. They’re smarter than that!”*

Question: Does bacteria really look like that puppet? What does bacteria really look like?

Answer: Real bacteria are so tiny that we can’t really see them unless we look under a microscope. But we know that harmful bacteria are there, so we have to get rid of them.

Question: What happens if there is a germ on food and I eat it? What will happen to me? If it gets inside me, how do I get it out?

Answer: There are good germs and bad germs that can be on the food you eat. But if bad germs are on the food you eat, there is a possibility that you could become ill. If you begin to feel sick, your parents should call a doctor who will help you get well.

Question: Why should we try to get rid of germs if they’re everywhere and they’re just going to come back anyway?

Answer: Even though they can come back, you want to remove them so you don’t eat them. That’s why it’s important to wash your hands often and rinse your fruits and vegetables before you eat them. Bad germs that may be on some foods can cause illness and they are the ones that can be killed if foods are always carefully handled and/or cooked safely.

Question: What kinds of foods should be refrigerated?

Answer: Lots of things like milk, cheese, eggs, salads, some fruits and vegetables, leftovers, meats, doggie bags, and many bottles and jars once you open them. Remind your parents to check the label to see if it says: “Refrigerate after opening” or “Best Before”.

Question: We have the TV (or plants, a fishbowl, microwave, or even the cat) on our kitchen counter. Is that bad? (This needs to be handled carefully, so as not to say to the children that their parents are doing something “wrong” or “bad”.)

Answer: There are some things in our kitchens that we keep on the counter all the time, like a TV set or microwave. It’s not really in the same exact place where we prepare food - so that’s okay. The important thing is that the area where you prepare and serve food should be kept clean. Watch out for things that just don’t belong on the counter. Pets should never be on the counter. And remember - don’t put your backpack in the same place that you’ll be making a snack. If something like a pet does get on the counter, remind your mom or dad to clean the counter before using it to prepare food.

Question: Should I wash my fruit with soap and water?

Answer: No, just rinse it well under cold, running water.

Question: Why do you have to put soap on your hands to get rid of the germs, but only water on your fruits and vegetables?

Answer: Soap is a detergent made to be used on our hands and bodies, not on food. There are special non-toxic ‘soaps’ for washing fruits and vegetables.

Food Booklet



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a hands-on activity using primary and secondary reference sources.

Safety Considerations

Students should be reminded of the rules for using colouring tools correctly.

Background

Some students know what foods come from the refrigerator but may not know that it is also inspected for health and safety reasons. They may not know that bacteria are present on all surfaces and how important it is to clean food, counters, and themselves.

What You Need

- Booklet
- Markers, crayons or pencil crayons
- Pencils

What to Do

1. Print booklets from the following website:
<http://www.inspection.gc.ca/english/corpaffr/educ/active5-8.pdf>
2. Working individually or in groups have the students work on the various activities in the booklet.
3. Review the answers as a class.
4. Discuss what was learned in the booklet.

Where to Go from Here?

Students can make their own booklet about food safety.

Cross Curricular Connections

Art: Colour

Health: Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others.

Credit Where Credit is Due

Canadian Food Inspection Agency

Food Safety Activity Booklet

For grades K-3 (5-8 year olds)
and everyone else interested in food safety!



Food Safety Game



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a resource and hands-on activity using primary reference sources.

Safety Considerations

Students should be reminded of the rules for using computers correctly.

Background

Students should know food safety practices. This is a game that asks questions about food safety.

What You Need

- Class computers or computer and projection

What to Do

1. Divide the class into groups.
2. Go to website
<http://www.inspection.gc.ca/english/corpaffr/educ/gamejeu/wheeroue/wheeroue.shtml>
3. Allow the students to take turns spinning the wheel.
4. The teacher should read the questions to the class and whichever team gets the question correct first, gets a point. Be sure to read the answer to the class for the extended details.
The game only asks four questions, but when the Play Again icon is activated, it will generate different questions.

Or

1. Take the students to the computer lab.
2. Allow the students to play the game themselves.
3. Have a class discussion on what they learned from playing the game.
4. Write down the food safety rules that students think are most important to them.

Where to Go from Here?

Have the students go home and report to their parents what they learned.
Have the class play the adult version of the game.

Cross Curricular Connections

Media Literacy: Use the computer to obtain knowledge about food safety.

Health: Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others.

Credit Where Credit is Due

Game supplied by Canadian Food Inspection Agency.



Food Safety Posters



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Personal Safety, and Injury Prevention



Big Ideas

Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, and outdoors.

Inquiry Skills Used

This is a research activity using various primary reference sources.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils.

Background

In general, foodborne illness is not long-lasting, but in some cases, it can be severe, even deadly. Foodborne illness occurs when a person eats food contaminated with microscopic, disease causing organisms, such as bacteria, viruses, and parasites. Foodborne illness and symptoms will vary according to the type and amount of these organisms present in the food. The most common symptoms may include stomach cramps, nausea, vomiting, diarrhea, headache and fever, or any combination of these. These symptoms can occur several hours or several days after eating contaminated food.

What You Need

- <http://www.fightbac.org/fightbac-downloads/brochures-and-fliers>
- Crayons, markers, pencil crayons
- Scissors
- Construction paper for making the Food Safety posters

What to Do

1. Download various posters, brochures, and fliers from the website <http://www.fightbac.org/fightbac-downloads/brochures-and-fliers>
2. Students can colour and take home or post them around the school.

Where to Go from Here?

Students can make three-dimensional work using alternative art supplies. They can also research good bacteria that are used to produce food in the food industry, such as cheese, yogurt or bread.

STSE Links

Bacteria are used to help clean our drinking water in water filtration plants. Ask the students what would happen if we eliminated all bacteria. Would we still be able to survive?

Cross Curricular Connections

Language Arts: Write a story about Bacterium and its life.

Visual Arts: This activity also incorporates visual arts when producing two- or three-dimensional works of art that communicate a specific idea.

Food Safety Quiz



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a resource and hands-on activity using primary reference sources.

Safety Considerations

Students should be reminded of the rules for using computers correctly.

Background

Students should know food safety practices. This is a quiz that asks questions about food safety. This can be a summative activity.

What You Need

- Class computers or computer and projection

What to Do

1. Go to website <http://www.mapleleaf.com/en/market/food-safety/food-safety-at-home/food-safety-quiz/>
2. Hand out quiz sheets.
3. The teacher reads the questions to the students and they answer on the sheet.
4. The teacher can either tell the students the answers immediately or have the students hand in the sheets, and read the answers at a later date.

Or

1. Take students to the computer lab.
2. All students go to website <http://www.mapleleaf.com/en/market/food-safety/food-safety-at-home/food-safety-quiz/>
3. The teacher reads the questions and answers, and the students pick which answer they think is correct.
4. After the quiz is finished, the teacher records the marks off the computers.

Where to Go from Here?

This quiz can be given more than once to determine how much the student has learned. Students report to parents what they learned.

Cross Curricular Connection

Media Literacy: Using computer skills allows students to answer a quiz on the internet.

Credit Where Credit is Due

Quiz supplied by Maple Leaf Foods.



Maple Leaf Foods Food Safety Quiz

1. True
 False
2. True
 False
3. True
 False
4. 60°C (140°F)
 40°C (104°F)
 75°C (167°F)
 Depends on the food
5. True
 False
6. 4°C (40° F) or lower
 21° C (70° F)
 0°C (32°F)
 None of the above
7. 5 seconds
 10 seconds
 20 seconds
 1 minute
8. True
 False
9. The longest amount of time you can keep the fridge open
 The maximum length of time food can be left at room temperature
 The time it takes to make ice cubes
 All of the above
10. Older adults
 Pregnant women
 Very young children
 All of the above
11. A) On the counter
 B) In the refrigerator
 C) In the microwave
 D) B or C

Food Group Collage



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Healthy Eating



Big Ideas

Identify the food groups and give examples of foods in each group.

Inquiry Skills Used

Initiating & Planning: brainstorming the various foods students like to eat

Performing & Recording: charting characteristics on a Venn diagram

Analysing and Interpreting: drawing conclusions based on prior knowledge and pictures of the various animals

Communicating: orally communicating by presenting the new-found ideas to other students

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors.

Background

The Canadian Food Guide recognizes four food groups: vegetables and fruits, grain products, milk and alternatives, meat and alternatives. Most children are familiar with different types of foods but do not always grasp the concept of what constitutes good food and what foods are found in the various food groups.

What You Need

- Construction paper or chart paper
- Round tipped scissors
- Glue or tape
- Grocery store flyers or old magazines

What to Do

1. Talk to the class about the different food groups.
2. Brainstorm with the students what foods belong to the various food groups.
3. Divide the students into groups. Give each group chart paper or construction paper with a food group written on top (fruits and vegetables, grains, milk products, meat and meat alternatives). Distribute various grocery store flyers or magazines with pictures of food.
4. Each group cuts out and pastes food from their food group onto their chart paper.
5. The groups will then present their posters to the class.
6. Hang the posters around the room as a reminder of the four food groups.



Where to Go from Here?

The various pictures can be used for a sorting activity prior to gluing them on the sheets.

STSE Links

Ask the students what would happen if they only ate their favourite food.

Cross Curricular Connections

Language Arts: Read a book about food. This will create opportunities for text to world and text to self connections regarding food.

The students are looking through a media text and will be reading the text as they search for pictures.

Make a list (in partners, small groups) of all the food they eat in one day.

Visual Arts: This activity also incorporates visual arts when producing two- or three-dimensional works of art that communicate a specific idea.



Health
Canada

Santé
Canada

CANADA'S

Food Guide

TO HEALTHY EATING
FOR PEOPLE FOUR YEARS
AND OVER

Enjoy a variety
of foods from each
group every day.

Choose lower-
fat foods
more often.



Frankenstein My Bacteria



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Personal Safety, and Injury Prevention



Big Ideas

Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, and outdoors.

Inquiry Skills Used

This is a research activity using observation and experimentation.

Safety Considerations

Students should be reminded about safe practices regarding the use of modelling tools, and should be reminded not to eat modelling clay.

Background

Canada's food supply is considered one of the safest in the world and Canadians should be proud. However, food safety doesn't just happen; many people play a vital role in keeping our food safe. For example, farmers, fishermen, food processors, grocers, and you all play an important part in food safety. According to Health Canada, an estimated 11-13 million Canadians are affected each year by foodborne illness— commonly known as food poisoning. Many cases go unreported because the symptoms resemble other digestive illnesses. Handling food safely in the home, in processing plants, and everywhere food is sold is the key to preventing foodborne illness. This activity will explain that there are bacteria everywhere and on everything.

What You Need

- Pictures of bacteria
- Coloured modelling clay
- Modelling tools
- Crayons, markers or pencil crayons



What to Do

1. Go to website <http://www.fightbac.org/fightbac-downloads/brochures-and-fliers> Download and print 10 'least wanted foodborne pathogens'.
2. Enlarge pictures of pathogens enough so that each student has one.
3. Students colour pictures of pathogens.
4. Read to the students about each of the bacteria and have the students hold up their picture of the appropriate bacteria as the teacher reads about it.
5. Using the pictures as reference, the students make a model of the bacteria using modeling clay. Students can make as many as they would like, not just the one that they coloured.

Where to Go from Here?

Students could create a huge Petri dish of the entire classroom using the clay models of bacteria. Students could put their bacteria all over the surfaces of the classroom, reminding them that bacteria are everywhere. Students can make three-dimensional works using alternative art supplies, such as paper plates, paint, fuzzy chenilles, etc. The students could label the bacteria, or make up names for their bacteria. They could also research their bacteria to assess if they are pathogens.

STSE Links

In the event of flooding and the spread of bacteria such as cholera, what bacteria would be most dangerous? How can bacteria spread be controlled? After a major oil spill, can bacteria be used to help clean up?

Cross Curricular Connections

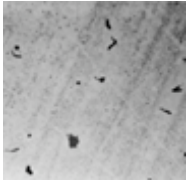
Language Arts: Read a book about bacteria, "Germs Make Me Sick!" by Melvin Berger, illustrated by Marilyn Hafner, and create opportunities for text to world and text to self connections regarding being sick. Make a list (in partners or small groups) of all various ways bacteria can make you sick (fever, stomach ache, vomiting, etc).

Visual Arts: This activity also incorporates visual arts when producing a three-dimensional work of art that communicates a specific idea.

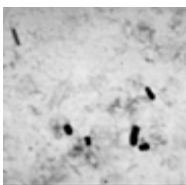
Least Wanted Foodborne Pathogens

The U.S. Public Health Service has identified the following microorganisms as being the biggest culprits of foodborne illness, either because of the severity of the sickness or the number of cases of foodborne illness they cause. Beware of these pathogens: Fight BAC!®

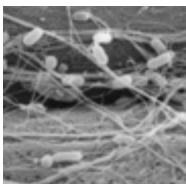
LEARN WHERE THEY ARE AND HOW TO AVOID THEM



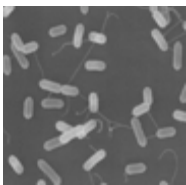
Campylobacter- Second most common bacterial cause of diarrhea in the United States. Sources: raw and undercooked poultry and other meat, raw milk, and untreated water.



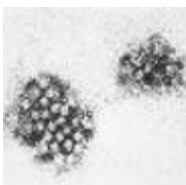
Clostridium botulinum- This organism produces a toxin which causes botulism, a life-threatening illness that can prevent the breathing muscles from moving air in and out of the lungs. Sources: improperly prepared home-canned foods. Honey should not be fed to children less than 12 months old.



E. coli O157:H7- A bacterium that can produce a deadly toxin and causes approximately 73,000 cases of foodborne illness each year in the U.S. Sources: beef, especially undercooked or raw hamburger; produce; raw milk; unpasteurized juices and ciders.



Listeria monocytogenes- Causes listeriosis, a serious disease for pregnant women, newborns, and adults with a weakened immune system. Sources: unpasteurized dairy products, including soft cheeses; sliced deli meats; smoked fish; hot dogs; pate; and deli-prepared salads (i.e., egg, ham, seafood, and chicken salads).

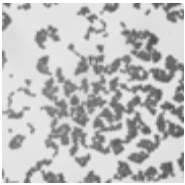


Norovirus- The leading viral cause of diarrhea in the United States. Poor personal hygiene causes Norovirus to be easily passed from person to person and from infected individuals to food items. Sources: Any food contaminated by someone who is infected with this virus.



Salmonella- Most common bacterial cause of diarrhea in the United States, and the most common cause of foodborne deaths. Responsible for 1.4 million cases of foodborne illness a year.

Sources: raw and undercooked eggs; undercooked poultry and meat; fresh fruits and vegetables; and unpasteurized dairy products.



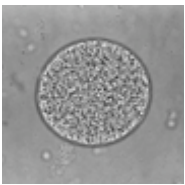
Staphylococcus aureus- This bacterium produces a toxin that causes vomiting shortly after being ingested.

Sources: cooked foods high in protein (e.g., cooked ham, salads, bakery products, dairy products) that are held too long at room temperature.



Shigella- Causes an estimated 448,000 cases of diarrhea illnesses per year. Poor personal hygiene causes Shigella to be easily passed from person to person and from infected individuals to food items.

Sources: salads; unclean water; and any food handled by someone who is infected with the bacterium.



Toxoplasma gondii- A parasite that causes toxoplasmosis, a very severe disease that can produce central nervous system disorders, particularly mental retardation and visual impairment, in children. Pregnant women and people with weakened immune systems are at higher risk.

Sources: raw or undercooked pork.



Vibrio vulnificus- Causes gastroenteritis, wound infection, and severe bloodstream infections. People with liver diseases are especially at high risk.

Sources: raw or undercooked seafood, particularly shellfish.

“Ten Least Wanted Pathogens” information provided by the Centers for Disease Control. For more information visit <http://www.cdc.gov/>

The Partnership for Food Safety Education <http://www.fightbac.org/>

How Do My Bacteria Grow?



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Science and Technology, Understanding Life Systems



Big Ideas

Identify environment as the area in which something or someone exists or lives.

Inquiry Skills Used

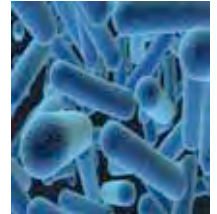
This is a research activity using observation and exploration.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils.

Background

Canada's food supply is considered one of the safest in the world and Canadians should be proud. However, food safety doesn't just happen; many people play a vital role in keeping our food safe, for example, farmers, fishermen, processors, grocers, and you. According to Health Canada, an estimated 11-13 million Canadians are affected each year by foodborne illness—commonly known as food poisoning. Many cases go unreported because the symptoms resemble other digestive illnesses. Handling food safely in the home, in processing plants, and everywhere food is sold is the key to prevent foodborne illness. This activity will explain how quickly bacteria can grow on food given the right environmental conditions.



What You Need

- Paper
- Pencil

What to Do

This is a two-hour demonstration. The students can continue to work on other activities while the demonstration is ongoing.

1. Give each student a piece of paper.
Tell the students that this paper is a piece of lunch meat.
2. Ask the students to draw 1 dot on the page. Tell the students that this dot is a bacterium cell. Explain to the students that if meat is left out, a bacterium doubles every twenty minutes.
3. After twenty minutes ask the students to draw 1 more bacterium.
4. After another 20 minutes, draw 2 more, then 4, 8, 16, 32, 64.
5. After 2 hours, there will be 128 bacterial cells on the page.

OR

The teacher draws a circle on the chalk board. Draw one bacterial cell on the board. Continue as above, only the teacher demonstrates on the board rather than the students doing the demonstration at their desks.

Time	Number of Dots Added	Number of Dots on the Page
0	1	1
20 min.	1	2
40 min.	2	4
60 min./1h	4	8
80 min.	8	16
100 min.	16	32
120 min./2h	32	64

Discuss with the class what happens with their Lunchmates if opened and left on the counter until the next recess. How many bacterial cells could have grown on the meat that they are about to eat?

Ask the students if bacterial cells grow on crackers? Discuss with the class that bacterial cells will not grow on the crackers and will grow at a slower rate on the meat and cheese if refrigerated.

Where to Go from Here?

With the class, determine how many bacterial cells there will be after 3 hours.

Use different colours or glitter on the paper to represent different strains of bacteria and how they grow at different rates. This can also demonstrate that there is more than one type of bacteria.

Ask parents to send an ice-pack in lunches in order to keep food cool, like a refrigerator.

STSE Links

This activity can be extended to population growth of any population. For example, students could determine the population growth rate for the number of racoons in the neighbourhood, people in a city, or bears in the wilderness. Students can discuss how this affects the environment.

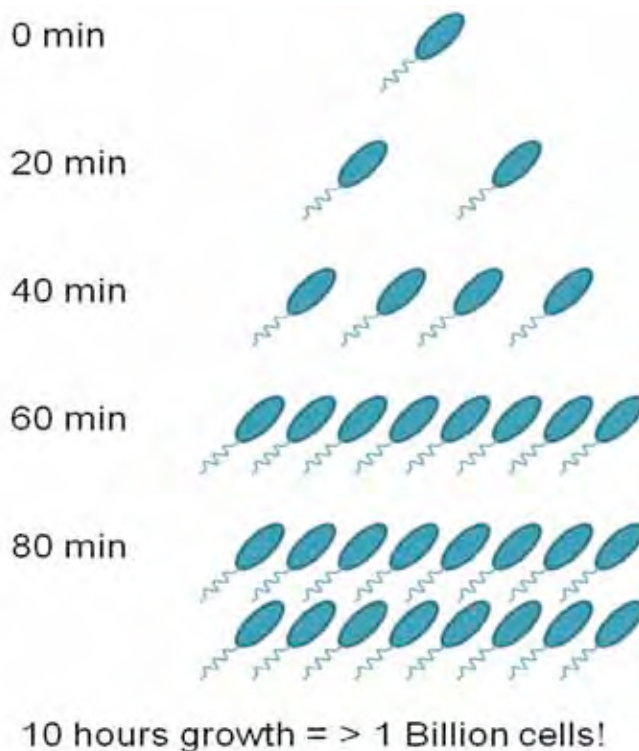
Cross Curricular Connections

Language Arts: Read the book, "Gross Me Out" by Sloppy Joe Rhatigan and Revoltin`Rain Newcomb, illustrated by Clay Meyer and engage in some of the activities.

Media Literacy: The students can play this game on the internet:

<http://kids.discovery.com/fansites/grossology/games/game.html>

Visual Arts: Each student could produce their own bacterial growth circle and decorate it with various colours. This activity would incorporate visual arts when producing a two-dimensional work of art that communicates a specific idea.



How Do I Make My Lunch Safe?



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Personal Safety, and Injury Prevention



Big Ideas

Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, and outdoors.

Inquiry Skills Used

This is a research activity using exploratory experimentation.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils.

Background

Canada's food supply is considered one of the safest in the world and Canadians should be proud. However, food safety doesn't just happen; many people play a vital role in keeping our food safe, for example, farmers, fishermen, processors, grocers, and you. According to Health Canada, an estimated 11-13 million Canadians are affected each year by foodborne illness—commonly known as food poisoning. Many cases go unreported because the symptoms resemble other digestive illnesses. Handling food safely in the home, in processing plants, and everywhere food is sold is the key to preventing foodborne illness. This activity will explain how quickly bacteria can grow on food given the right environmental conditions.

What You Need

- Construction paper
- Coloured tissue paper or other thin paper
- Scissors
- Glue or tape
- Crayons, pencils or markers

What to Do

1. In groups, students will create posters about food safety in the home and in the classroom.
2. Students can use the information on the website <http://www.mapleleaf.com/en/market/food-safety/#>
Eg., Bring an ice pack with your meats.
Eat all of your Lunchmate after it has been opened—don't save some for later.



Where to Go from Here?

This lesson can be connected to “How Do My Bacteria Grow” on page 31. Create a school-wide program promoting food safety. The students could volunteer to be guest speakers in other classrooms talking about food safety. Ask parents to send ice-packs in lunches.

Cross Curricular Connections

Language Arts: Working in groups, the students could make a PowerPoint presentation to discuss how to make a safe lunch.

Visual Arts: Each student could produce their own two- and three-dimensional works of art of their lunch to communicate the idea of a safe meal.

How Dry I Am



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Science and Technology, Understanding Life Systems



Big Ideas

Know and recognize cues to hunger, thirst, and the feeling of fullness, and explain how they can use these cues to develop healthy eating habits.

Inquiry Skills Used

This is a research activity using observation and exploration.

Safety Considerations

Students should be reminded not to put sand or sugar in their mouths.

Background

Our bodies experience natural sensations to indicate hunger, thirst, and other body needs. This experiment demonstrates how we recognize the sensation of thirst.

What You Need

- Sand
- Sugar
- Water
- Containers



What to Do

1. Ask students if they can tell when they are thirsty. How can they tell? What signals do they experience?
2. Fill one container with sand. Have the students put their hand into the sand. How does their hand feel? They should answer “dry, sandy, or rough”. That is how they know they are thirsty. Their mouth and throat will feel dry, sandy or rough.
3. Students then wash the sand off their hands. Don't dry hands. How does their hand feel? That is how their throat feels when it is not thirsty. It will feel moist or wet.
4. Show the students a container of sugar. Allow the students to touch the sugar. Sugary drinks do not quench your thirst. Sugar in water does not make your throat feel moist or wet. What is the best drink to quench a thirst?

Where to Go from Here?

Have students research UNICEF or Save the Children Fund and determine how many children go hungry everyday and how that would make them feel. Research the problem of providing clean water for everyone in the world.

STSE Links

This activity can be extended to population growth. If children are unable to get enough nutritious food, how will this affect them? Monarch caterpillars only eat milkweed leaves. If we remove all the milkweed from the environment, will Monarch butterflies survive?

Cross Curricular Connections

Language Arts: Read the book, “It Takes a Village” by Jane Cowen-Fletcher.

How is Your Lunch Today?



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Healthy Eating



Big Ideas

Identify the food groups and give examples of foods in each group.

Explain why people need food to have healthy bodies.

Inquiry Skills Used

This is a research activity using observations and recordings of primary reference sources.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils.

Background

The Canadian Food Guide recognizes four food groups: vegetables and fruit, grain products, milk and alternatives, meat and alternatives. Most children are familiar with different types of foods but do not always grasp the concept of what constitutes good food and what foods are found in the various food groups. Using lunches, discuss how they can choose healthy food snacks, and describe the factors affecting their choices (e.g., choices made due to allergies or culture).

What You Need

- Student's lunch
- Copy of Canada's Food Guide Poster

What to Do

1. Ask the students to get their lunches.
2. Have the students sit on the carpet or other location for sharing.
3. Each student takes out their lunch and puts it in front of them.
4. As a class, have the students sort their lunches into the four food groups.
5. Discuss the importance of eating from all four food groups.

Where to Go from Here?

Students can plan a healthy food day based on foods from their various cultures.

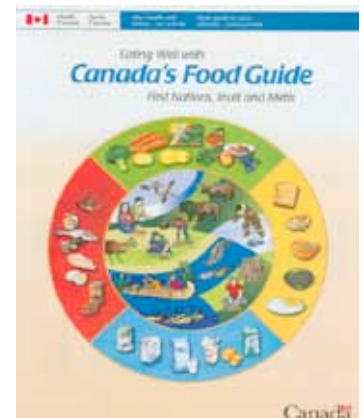
STSE Links

Eating healthy does not always involve pre-packaged foods. How can we influence companies to minimize the use of packaging in their products to reduce the amount of garbage?

Cross Curricular Connections

Language Arts: Have the students write their own lunch menus, offering healthy options. Make a list (in partners or small groups) of all the food they eat during lunch over one week.

Mathematics: Data Management: students track on a chart the various foods they ate over a period of time. To aid students, pre-make charts and stickers outlining the food groups.



How Many Foods Can I Draw?



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Healthy Eating



Big Ideas

Identify the food groups and give examples of foods in each group.

Inquiry Skills Used

This is a research activity using various primary and secondary reference sources.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils.

Background

The Canadian Food Guide recognizes four food groups: vegetables and fruit, grain products, milk and alternatives, and meat and alternatives. Most children are familiar with different types of foods but do not always grasp the concept of what constitutes good food and what foods are found in the various food groups.

What You Need

- Paper plates
- Crayons, pencils or markers

What to Do

1. Talk to the class about the different food groups.
2. Hand out paper plates.
3. Ask the students to draw pictures of their favourite foods on the plate.
4. Ask them to try to include all food groups.

Where to Go from Here?

Students can make three-dimensional work using alternative art supplies.

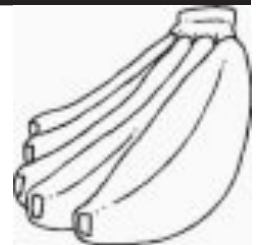
STSE Links

Ask the students what would happen if all farmers only grew one type of food from the food groups. How can we help farmers choose to grow different types of foods?

Cross Curricular Connections

Language Arts: Read a book about food that will create opportunities for text to world and text to self connections regarding food. Make a list (in partners or small groups) of all the food they eat in one day.

Visual Arts: This activity also incorporates visual arts when producing two- or three-dimensional works of art that communicate a specific idea.



Lunch Packing Video



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

This is a resource and hands-on activity using primary and secondary reference sources.

Safety Considerations

Students should be reminded of the rules for using computers correctly.

Background

Students should know that improper cleaning, cooking, and storage of food can lead to foodborne illness. The preparation and proper storage of lunches will reduce the chance of foodborne illness. A bacterium doubles every 20 minutes.

What You Need

- Class computers or computer and projection
- Worksheet
- Markers, crayons or pencil crayons
- Pencils



What to Do

1. Watch video <http://www.inspection.gc.ca/english/fssa/concen/tipcon/bagboxe.shtml>
2. Using the worksheet, have the students draw a picture in each box representing the words “clean”, “separate”, “cook”, and “chill” from the video just watched.
3. Have students get their lunches. Examine the students’ lunches. Discuss with the class which foods should be chilled, which foods should be stored in a thermal container, which foods do not need to be kept cool, and which foods are no longer fresh enough to eat today.
4. Discuss with the class the importance of storing their lunches correctly. Once opened, the meat in Lunchmates should be eaten, stored or chilled correctly to reduce bacterial growth.



Where to Go from Here?

With the class, create a list of foods that need to be chilled, cleaned, separated, or stored in a thermal container. Ask students to discuss what they learned with their caregivers, parents, etc...

Cross Curricular Connections

Visual Art: Colour

Health: Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others.

Credit Where Credit is Due

Video supplied by Canadian Food Inspection Agency.

Clean

Separate

Cook

Chill

Plastic Food Sort



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Healthy Eating



Big Ideas

Identify the food groups and give examples of foods in each group.

Inquiry Skills Used

This is a research activity using various primary and secondary reference sources.

Safety Considerations

Students should be reminded not to throw the plastic food and not to place the food in their mouths.

Background

The Canadian Food Guide recognizes four food groups: vegetables and fruit, grain products, milk and alternatives, and meat and alternatives. Most children are familiar with different types of foods but do not always grasp the concept of what constitutes good food and what foods are found in the various food groups.

What You Need

- Plastic food
- Chart paper or plastic bins for sorting

What to Do

1. Talk to the class about the different food groups.
2. Distribute various plastic foods, ensuring that all the food groups are covered.
3. Ask the students to sort the food into the four food groups using either the chart paper or the plastic bins. Ask the students to sort the foods into groups according to how they should be stored, eg., meat or dairy products in the refrigerator, fruit on the counter, grain products in a bread bin.



Where to Go from Here?

The students can work in groups to select foods they would like to eat for their lunches and how they should store the food to ensure it does not go bad.

STSE Links

Ask the students what would happen if all the food we had was made of plastic. Would the food ever go bad and would we need to store the food differently?

Cross Curricular Connections

Language Arts: Use the plastic food as puppets and have the students put on a play about their food, asking them where it came from and what environment they like to be stored in.

Reading a book about food will create opportunities for text to world and text to self connections regarding food.

Make a list (in partners or small groups) of all the food they eat in one day.

Visual Arts: The students could make a cornucopia with the various plastic foods. This can either be done with three- or two- dimensional art.

Mathematics: The students can count and sort the fruit into different attributes.

The ABC's of Washing Our Hands



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Health, Personal Safety, and Injury Prevention



Big Ideas

Outline the potential safety risks in the home, school, and community.

Inquiry Skills Used

This is a research activity using observation and hands-on exploration.

Safety Considerations

Students should be reminded about safe practices regarding the use of soap and being careful not to get soap in their eyes or splashing soap at other students.

Background

Students in Grade One are constantly touching items in the classroom. These items can become conveyors of bacteria. Health Canada and the World Health Organization (WHO) have long recognized that frequent hand washing can substantially reduce the spread of disease. Bacteria is everywhere in the environment. It is in the air and on every surface. So, it is necessary to wash ones' hands every time before eating. In this activity, students will learn the importance of washing their hands to reduce the spread of bacteria.

What You Need

- Soap
- A sink with water
- Paper towels

What to Do

1. Discuss with the class that bacteria are invisible organisms that can make you sick. Explain that bacteria are everywhere. Bacteria are also on our hands. It is important to wash the bacteria off our hands. It takes a while for bacteria to wash off our hands and soap is needed to get more bacteria off your hands.
2. Teach the students that they need to put soap on their hands and sing the "Alphabet Song" or "Row Your Boat" twice before rinsing off the soap. Have each student practice washing their hands.
3. Start each health lesson with the students pretending to wash their hands to either of the two songs.

Where to Go from Here?

Students smear a drop of glitter glue on their hands. This represents bacteria. Students then wash glitter glue off their hands. Glitter can also be sprinkled on the desks to see if students can work without contaminating themselves with glitter.

STSE Links

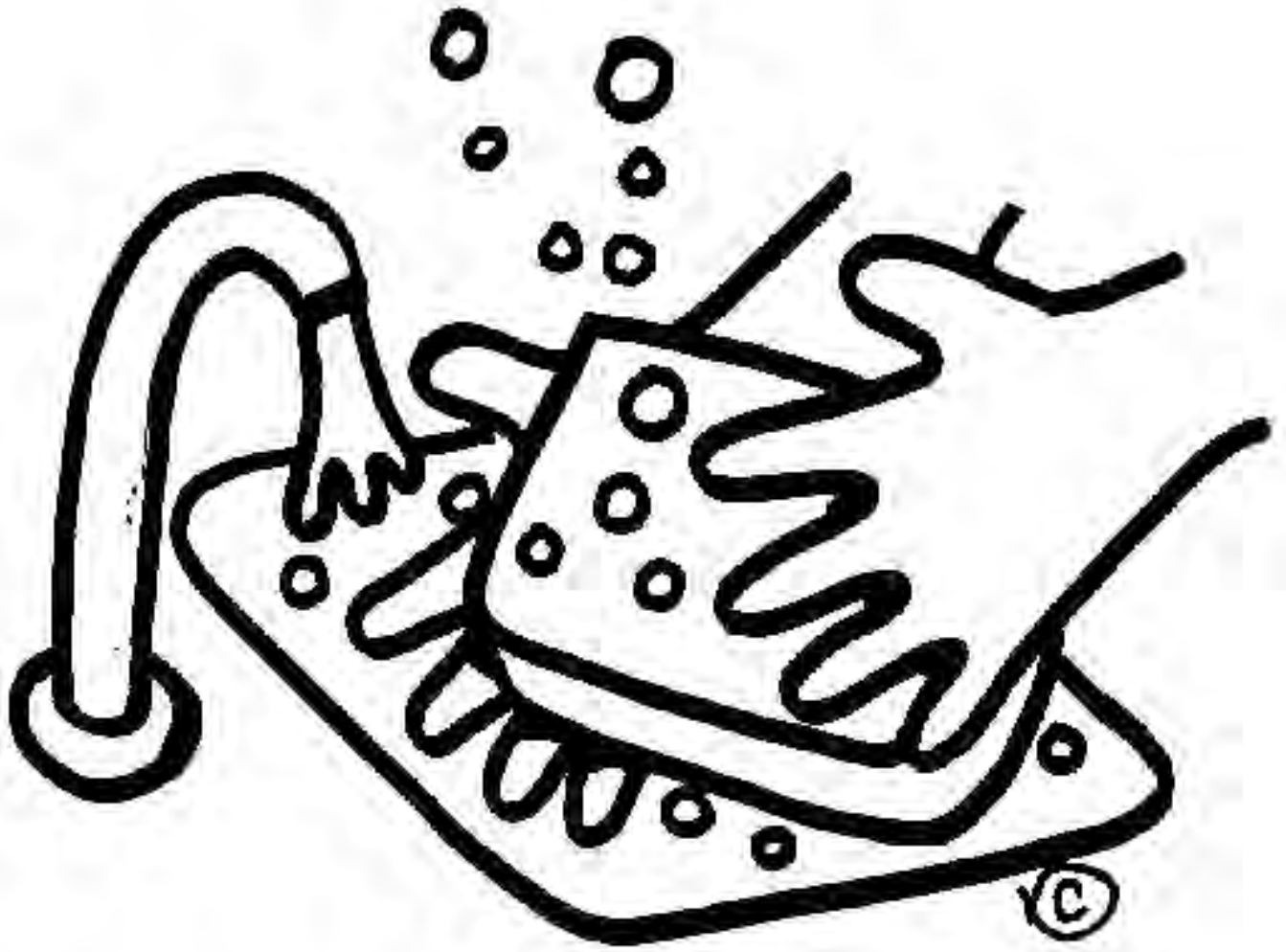
How can we help reduce the amount of bacteria in our environment? If we leave food on the counter and do not put it in the refrigerator, do we contribute to the amount of bacteria in our food?

Cross Curricular Connections

Language Arts: Read a book about bacteria, "Bacteria Galore by Sunday at Four" by Mel Rosenberg, illustrated by Tali Niv-Dolinsky. This book can create opportunities for text to world and text to self connections regarding foodborne illnesses.

The students will learn the alphabet as they recite it while washing their hands.

Visual Arts: Provide students with outlines of hands and have them draw their visual interpretation of bacteria on the outlines.



To Cook or Not to Cook, That is the Question



This activity is suggested for use with the Ontario Curriculum.

Grade 1: Life Science



Big Ideas

Describe the characteristics of a healthy environment, including clean air, water, and nutritious food, and explain why it is important for all things to have a healthy environment.

Inquiry Skills Used

In this activity, we are exploring food groups through observation and classification.

Safety Considerations

Students should be reminded about safe practices regarding the use of scissors and pencils.

Background

Canada's food supply is considered one of the safest in the world and Canadians should be proud. However, food safety doesn't just happen; many people play a vital role in keeping our food safe, for example, farmers, fishermen, processors, grocers, and you. According to Health Canada, an estimated 11-13 million Canadians are affected each year by foodborne illness—commonly known as food poisoning. Many cases go unreported because the symptoms resemble other digestive illnesses. Handling food safely in the home, in processing plants, and everywhere food is sold is the key to prevent foodborne illness. This activity will explain the need to cook certain foods to ensure they are safe to consume.

What You Need

- Construction paper
- Grocery store fliers
- Scissors
- Glue or tape
- Crayons, pencils or markers.

What to Do

1. Divide the students into groups.
2. Pre-make a T-Chart on the chart paper. At the top, write the labels, "Ready to eat" and "Must be cooked". Hand out a chart to each group.
3. Hand out the grocery store flyers.
4. Students will go through the flyers and cut and paste the different foods onto the correct sides of the T-Chart, eg., "Ready to eat" = carrots, Lunchmates, apples, lunchmeat. "Must be cooked" = steak, rice, pork roast, chicken breast.

Where to Go from Here?

Students can read the Maple Leaf Document <http://www.mapleleaf.com/en/market/food-safety/food-safety-at-home/> to determine how long cooked food can be left on the counter before it needs to be thrown out. Brainstorm with the students to determine how many different ways food can be cooked (e.g., baked, fried, boiled, microwaved, etc). Explore with the students various ways to prepare food so it will not spoil (e.g., smoked, dried, sugared, salted, etc.).

STSE Links

If we do not properly care for food and it is thrown away, how does the waste affect the environment and how many resources are lost as the result of food being thrown away?

Cross Curricular Connections

Language Arts: List the various foods. Read the book, “Gregory, the Terrible Eater” by Mitchell Sharmat, illustrated by Jose Aruego and Ariane Dewey. Discuss how eating things that are not cooked can make you sick.

Make a list (in partners or small groups) of all the food they eat in one day.

Mathematics: The students are charting the food on a T-chart and temperature is introduced when discussing cooking food.

Visual Arts: This activity also incorporates visual arts when producing two- or three-dimensional works of art that communicate a specific idea.

Social Studies: Community Helpers - Invite a grocer or butcher to talk to the students.

Credit Where Credit is Due

Portions of this activity were extracted from Maple Leaf Foods document, *Food Safety for Families*.