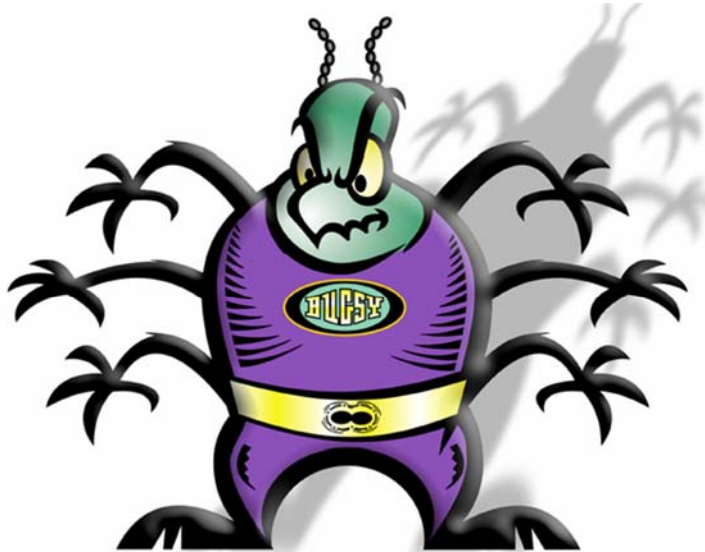


WASH YOUR HANDS



GRADE THREE Lesson Plan

GRADE



3

School Tour

Suggested Time: 50 minutes



Overview

Students will conduct a school tour to identify places where germs can be spread. Activities will improve students' awareness of when germs are on their hands, how they might spread germs to someone else and behaviours that will protect themselves and others from infectious diseases. The Potato Experiment shows why handwashing is particularly important when handling food. Students will identify barriers to good handwashing in their school washroom and discuss problems and solutions in class. **Note:** If time is an issue, this unit can be divided into shorter sessions.

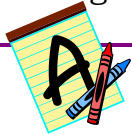
Curriculum

- W-3.8 Practices That Provide Safety For Self and Others – Students will employ practices that provide safety for self and others; e.g., describe strategies for safely preparing and storing food.

Learning Outcomes

Students will:

- Identify shared objects where germs can be spread
- Learn how to protect themselves and others from infections
- Recognize and remove barriers to good handwashing technique



Lesson Plan



Material Checklist

Lesson Plan		Material Checklist
<ul style="list-style-type: none"> • Where the Germs Are • Handwashing Protects You and Others 	10 minutes	<p><u>Material Downloads</u></p> <ul style="list-style-type: none"> ✓ Picture of Buggy ✓ Handwashing Video ✓ School Tour instruction sheet Handwashing Detectives instruction sheet ✓ How to Wash Your Hands poster ✓ Twinkle, Twinkle song poster ✓ Handwashing Detectives Checklist ✓ Where Germs Hang Out instruction sheet ✓ Potato Experiment instruction sheet <p><u>Teacher Supplied Material</u></p> <ul style="list-style-type: none"> ✓ Washrooms with soap and paper towels ✓ Clipboards ✓ Paper, tape, crayons, or markers ✓ 2 potatoes, prepared in advance ✓ 2 clean unused ziplock bags, labelled
<ul style="list-style-type: none"> • Handwashing Video 	5 minutes	
<ul style="list-style-type: none"> • School Tour 	15 minutes	
<ul style="list-style-type: none"> • Handwashing Detectives 	15 minutes	
<ul style="list-style-type: none"> • Where Germs Hang Out 		
Extension		
<ul style="list-style-type: none"> • Potato Experiment 	5 minutes to set up + ongoing observation	

Teacher Information

Throughout the day germs accumulate on your hands from a variety of places. Germs are able to survive for hours or days on surfaces in our environment, on telephones, desktops (teachers' desks are especially contaminated), money and pets. Hands come in contact with many objects during the working day. In fact during one minute the average working adult touches about 30 different objects.

The hands are very efficient at picking up germs from contaminated surfaces. For example, a significant number of the germs on kitchen surfaces can be transferred to the hands. Rates of germ transfer to the hands depend on the surface that is touched. More germs can be transferred from smooth hard surfaces such as telephones and faucets compared with rough spongy surfaces like dishcloths or carrots, but a significant number of germs can be transferred from both.

You don't get sick just by having germs on your hands (unless you have a cut or scrape). Germs get into the body through the mucous membranes, such as those around your nose, mouth and eyes. About 40% of the germs on your fingers can be transferred to your lips if you touch your lips. Small children bring their hands up to their mouths about once every three minutes. It is important to teach children as they grow older that keeping their hands away from their face will prevent illness.

In schools and elsewhere, surfaces that are touched by many people are places where germs are transferred. This includes playground and gym equipment, desks, shared pens and markers, vending machine buttons, door knobs and handles, washroom taps, telephones, bus rails, and many others. Students need to become aware of the "invisible" germs on these surfaces and to learn responsible behaviours that will protect themselves and others from illness.

Remember to wash your hands before activities where germs could be introduced into the body and after activities that are likely to result in direct contact with germs. These are: before eating or preparing food, after using the washroom, after handling garbage, after playing with pets, after blowing your nose, and before and after helping children with cuts and scrapes.

It is particularly important for children to make handwashing a habit, to recognize the important times to wash their hands, and to know that handwashing contributes to their health and the health of those around them.

Hand Sanitizers. Alcohol-based hand sanitizers kill many germs on the hands. Hand sanitizers are especially useful when soap and water are not available, such as on the playground or on field trips. These products are not effective unless they contain at least 60% alcohol. Note that hand sanitizers do not clean the hands and do not work if the hands are greasy or dirty, so they are not a substitute for handwashing.

Plain Soap. If you have the opportunity to select the soap at your school, use plain soap. Plain soap is just as effective as antibacterial soap in removing germs from the hands. Further, plain soap does not promote antimicrobial resistance, a growing medical concern in the community.

Note: Some of these activities also fit with Science Curriculum 3-1 and 3-2.



Introduce Buggy

Materials: Picture of Buggy

Introduce Buggy to the class and explain that Buggy is here to help them learn about where germs are. Buggy has important messages as we go along. Buggy is a bug. Not a bug like a ladybug! He's a germ bug. Being a germ bug, he knows where all of the other germs hang out. He's here to help you find them.

Note: Graphic can be downloaded to an overhead or viewed on line from a projector or SMART Board.

Explain to students that today they will be learning about how to protect themselves from germs and how to stop germs from spreading to other people.

Where the Germs Are (5 Minutes)

? *Do you remember what germs are?*

Sum up: Germs or bugs are tiny living things. They are so small you can't see them except with a microscope. Germs cause colds, influenza, measles and chickenpox, among others.

? *Can you name some of the places where germs are in the classroom? At home? In public places like restaurants or malls?*

Allow students to provide some answers. Sum up and prompt students to remember the most important places: bathroom, garbage, used tissues, pets. Germs are in lots of places.

? *What happens to you if you don't wash your hands after touching something with germs on it?*

The germs can get into your body to make you sick. The germs get into your body through your nose or mouth or eyes. Then they make you sick.

? *What happens to other people if you don't wash your hands after touching something with germs on it?*

You can spread the germs around to the other things that you touch. Then, when other people touch them, they get germs on their hands. That can make them sick too.

Surfaces that are touched by lots of people are the places where germs are spread from one person to another. If I blow my nose and don't wash my hands, then the germs on my hands will be spread to all the things that I touch.

? ***What are some of the things that I touch that you also touch?***

Demonstrate and sum up: Teacher's desk, white board and markers, papers, books etc.

? ***What are some of the things that you touch that your classmates also touch?***

Sum up: Desk, shared markers, pencils, crayons, papers, books, etc.

? ***What about other places in the school?***

If they haven't already done so, prompt the students to think beyond the area around their desks. Sum up: Door knobs, railings, light switches, playground equipment, balls, washroom taps, etc.

? ***What about other places your home and in our community?***

Home: Telephone, computer keyboard, remote control, shared towels, countertops.

Community: Bus rails, elevator buttons, escalator railings, park benches, water fountain handles, money

? ***How did these germs get spread around?***

Sum up: By our hands.

? ***How do these germs make you sick?***

Sum up: When our hands put the germs in our nose, mouth or eyes.



BUGSY SAYS GERMS ARE SPREAD BY THE HANDS.

Handwashing Protects You and Others (5 Minutes)

Students will gain an understanding that they are responsible for their own safety and the safety of others. To minimize the spread of germs to each other and to shared objects, everyone needs to practice good handwashing techniques. Students will learn that handwashing protects themselves, their classmates, school personnel, and their families from illness.

? ***What are some of the things you can do to stop spreading germs?***

Sum up: Handwashing, covering your cough and sneezing in your sleeve, staying home when you are sick.

- ? ***When you wash your hands it's important to do it right. Imagine that you are in the washroom and ready to wash your hands. What are the first things that you should do?***

Sum up: Turn on the taps. Get some soap.

- ? ***Then what?***

Sum up: Rub your hands together with the soap. Rub all parts of your hands, palms, between your fingers, backs, thumbs, wrists, and fingertips and nails. Sing the Twinkle, Twinkle song to make sure you do it long enough.

- ? ***Next?***

Sum up: Rinse all the soap and germs away.

- ? ***What are the other things that you need to do?***

Sum up: Wipe your hands. Turn off the water. Open the door. Throw away the towel. Leave the washroom.

- ? ***What order do you think you should do these in? What happens if you turn off the taps with your clean hands?***

Sum up: You will get germs that are on the tap on your hands. When you turned on the tap your hands weren't clean. Neither were anyone else's hands who turned on the tap. Because of this the taps have germs on them. To keep from getting germs on your hands after doing such a good job washing them, get the paper towel, next dry your hands, and then use the towel to turn off the taps.

Note: If the paper towel dispenser in your washroom has a lever or button, the students should use their elbow or forearm to dispense the towel or get one before they start to wash. See Practical Solutions to Handwashing Problems for other situations that may arise. In the handwashing activity, students will be reporting on things in their washroom that make handwashing difficult and follow up with problem solving in the classroom.

- ? ***What happens if you open the door with your clean hands?***

Sum up: The germs on the door knob or handle, or on the door itself (if opens by pushing) can come off on your hands. Use the towel to open the washroom door.

- ? ***What else can you do to help your classmates and the adults at your school keep their hands clean?***

Sum up: Keep the washroom tidy. Throw your towel away in the trash. If the trash container is not near the washroom door, take it with you and throw it away in your classroom.



BUGSY SAYS GOOD HANDWASHING PROTECTS YOU AND OTHERS FROM SPREADING GERMS WITH YOUR HANDS.

Handwashing Video (5 minutes)

Materials: Handwashing Video or DVD on request

Inform students that they are now going to see a handwashing video that will show them the proper way to wash their hands. Tell them to pay close attention to the video, as later they will be using a checklist to find ways to make handwashing easier in their washroom. They will need to know the six steps of good handwashing.

Note: Some students may have seen this video previously. For those students, ask them to use the video to make sure they remember all the steps of good handwashing. The video is included for all grades (K-Grade 3) to reinforce previous learning and as catch-up for students who have not seen it before.

After playing the video once ask the students to name the six steps of handwashing. They are:

1. Wet your hands.
2. Apply soap.
3. Rub your hands together.
4. Rinse your hands.
5. Dry your hands with a paper towel.
6. Use the towel to turn off the tap and let yourself out the door.

Last, don't forget to leave the washroom neat and tidy!

Show the video again and discuss the steps if reinforcement is needed.

Ask students what they remember from the video about the parts of the hands that need to be scrubbed. Sum up: palms, between the fingers, backs of hands, thumbs, wrists, fingertips and nails. This step should take about 20 seconds, or the time it takes to sing the Twinkle, Twinkle song.

Activities

School Tour (15 minutes)

See: School Tour instruction sheet.

Students will go in small groups to examine different areas in the school (classroom, washroom, gym, library, computer room, playground, etc.) to identify surfaces that are touched by many people. These are places where germs can be transferred from one person to another. Students will report back to the class and compile a master list. Discussion will help students become aware of behaviours that will protect themselves from infections and prevent the spread of germs to others in school, at home, and in public places.



Handwashing Detectives (15 minutes, concurrent with Where Germs Hang Out)

See: Handwashing Detectives instruction sheet

Use: Handwashing Detectives checklist
How to Wash Your Hands poster
Twinkle, Twinkle song poster

This activity is an opportunity for the students to identify barriers to good handwashing technique in their own washrooms. Student checklists are provided to record observations. Subsequent discussion in the classroom is aimed at finding solutions to make handwashing easier for everyone in the class.

Where Germs Hang Out (15 minutes, concurrent with Handwashing Detectives)

See: Where Germs Hang Out instruction sheet.

Students will trace an outline of their hands, color them with “germs”, and cut out the hand shapes. Students are asked to imagine the place in the classroom where they think there are the most germs. When all students are ready, all will post their hand cut outs in the places they have identified. The hand cut outs serve as a reminder of places where germs can be transferred. Discussion will focus on which places have the most handprints and why.

Potato Experiment (5 minutes to set up + ongoing observation over the next 3-5 days)

See: Potato Experiment instruction sheet.

This activity is an extension of the lesson plan. It also can be used with the science curriculum to teach good predictive, observational and recording skills, for example by plotting results on a chart or graph. Students will observe the growth of germs on potatoes that have 1) been passed from student to student before washing their hands and 2) been passed from student to student after washing their hands. Students will understand that during normal activity, germs are picked up on the hands and that these germs can be transferred to the food that we eat.

Ongoing Education

- Have students report the results of the school tour to the principal.
- Ask one or two students to interview the principal about why handwashing is important and how to reduce the spread of germs in the school. Report back to the class.
- Expand the concept of the school tour to the home or other places in the community such as malls, buses, libraries and sports facilities.
- Organize a staff information session about handwashing at lunch time or during a staff meeting. Encourage all school personnel to model handwashing daily.
- Expand the Where Germs Hang Out activity to the rest of the school. Create a display for a hallway bulletin board explaining what the posted hand outlines mean.
- Repeat the Handwashing Video throughout the year to reinforce the good technique.



- Organize an assembly of the whole school and have someone, maybe the school nurse, do a presentation to all students and parents about handwashing and how to stop the spread of infections.
- Encourage students to pass information on to their families and friends.



PRACTICAL SOLUTIONS TO HANDWASHING PROBLEMS

Problem	Hygiene Principle	Solution
Soap or paper towels not available	Handwashing by students, teachers and staff is the best way to stop the spread of infections in schools.	Inform custodial staff and/or principal. Suggest that the school administration hold an information session for custodial staff about the importance of handwashing. Handwashing protects custodial staff too.
Taps go off automatically and water does not run long enough	Water needs to run long enough to rinse off soap and germs.	Have students wash hands with a buddy so they can assist each other with the tap. Students should use a paper towel to push in the tap if they have already washed their hands.
Warm water not available	Cold water is a deterrent to handwashing.	Discuss with school administration. If it is not possible to have warm water, use cold. Cold water is less comfortable but will work (with soap) to remove germs from the hands.
Children cannot reach the taps or sink	Handwashing is important for all children.	Provide a stool or step that does not tip.
Need to conserve water. Taps should not be left running.	Good handwashing technique includes using a paper towel to turn off the taps. This prevents recontamination of the hands from dirty taps.	Suggest that students get their paper towel before washing their hands so that it is available when they need to turn off the taps. The towel can be tucked under the arm or into a pocket until it is needed.
Paper towel dispenser is far away from the sink		
Paper towel dispenser has a lever or button	Hands can be recontaminated by touching the lever or button to dispense a paper towel.	Show students how to use an elbow or forearm to dispense the towel or suggest they get the paper towel before washing their hands.



Problem	Hygiene Principle	Solution
Wastebasket is not near the door	Hands can be recontaminated by touching the washroom door or handle. Good handwashing technique includes using the paper towel to open the washroom door. To avoid making a mess, it's best to have the wastebasket near the door.	Move the wastebasket close to the door or prop open the door. If neither are possible, suggest that students take the towel with them and throw it away in the classroom.
Handwashing takes too much time	Handwashing prevents illness and reduces absenteeism. In the long run it saves time.	Establish routine times for students to wash their hands. Before lunch and after recess are ideal. Teach good handwashing technique and remove barriers so that students become proficient.
Custodial staff concerned about the mess in the washroom	Washrooms should be neat and tidy.	Reinforce the final message of good handwashing with the students to properly throw away their paper towel in the wastebasket.
Don't know if antibacterial soap is in use	Plain soap does not promote antibiotic resistance and is equally effective in preventing the spread of germs.	Ask about the soap that is used in your school. Read the ingredients. If the soap contains "triclosan" it is antibacterial soap. Antibacterial soap has negative medical side effects and does not work any better than plain soap. If antibacterial soap is in use, suggest switching to plain soap. Plain soap is generally less expensive.

Acknowledgement

This teaching resource was developed by the Do Bugs Need Drugs? program in collaboration with Alberta Health and Wellness and Alberta Education.

