KEEP GERMS AWAY

Resources for Out-of-School-Care Programs

Used and modified with permission by the Public Health Agency of Canada

Updated May 2014
Introduction

*Keep Germs Away - Resources for Out-of-School-Care Programs* provides information and tools for promoting handwashing and preventing the spread of infections in out-of-school-care programs. The activities are intended to be a learning experience for both students and caregivers.

Used and modified in part with permission from *Germs Away*, a program for grades four to six, developed by the Northern Antibiotic Resistance Partnership (NARP) and the Public Health Agency of Canada (PHAC). NARP resources are available online at: [http://www.narp.ca/edu.htm](http://www.narp.ca/edu.htm).

Our sincere thanks to NARP and PHAC for allowing us to adapt the *Germs Away* program for out-of-school-care settings.

Activities from *Germs Away* are identified with this logo:

*Keep Germs Away - Resources for Out-of-School-Care Programs* includes:

- Background information for the caregiver
- Children’s activities
- Handwashing videos
- Checklist for assessing handwashing facilities
- Solutions to common handwashing problems

These resources are provided by Do Bugs Need Drugs?, a community education program about handwashing and responsible use of antibiotics. Do Bugs Need Drugs? is a program of Alberta Health Services.
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**KEY MESSAGES**

1. Handwashing is the best way to stop the spread of infections.
2. Bacteria and viruses are different. Antibiotics do not work against viral infections.
3. Use antibiotics and antibacterial products responsibly to limit the development of antibiotic resistance.
Handwashing

Handwashing Is the Best Way to Stop the Spread of Infections

Handwashing is an important life skill that protects children, caregivers, teachers and families against infections. Over 80% of common infections can be spread by the hands. Both washing at the right times and using proper handwashing technique contribute to good health. Handwashing is the best way to stop the spread of infections.

Hands Transfer Germs from the Environment to the Body

Germs from contaminated surfaces can easily be picked up by your hands, but just having germs on your hands does not make you sick. Germs get into the body through the mucous membranes (the pink moist areas around your eyes, nose and mouth). When your hands come in contact with the mucous membranes germs can get into the body and lead to an infection. Keeping your hands away from your face will prevent transfer of germs to the mucous membranes. Frequent and proper handwashing reduces the chance of germs getting into the body and prevents the spread of germs to others.

Respiratory Etiquette

Good respiratory etiquette will help to stop the spread of germs when you are sick. Remember to cover your nose and mouth when you sneeze or cough so that germs will not be spread into the air and onto objects in the environment. Cough into your sleeve or sneeze into a tissue to avoid contaminating your hands. Throw away used tissues promptly. If you cough or sneeze into your hands, wash them as soon as possible.

When to Wash Your Hands

Hands should be washed whenever they are likely to be contaminated and before activities when they might introduce germs into the body. Here are some important times when hands should be washed:

• Before eating or preparing food
• After using the toilet or helping a child with toileting
• After blowing your nose or helping a child with a runny nose
• After handling objects that are shared with others
• After coming in from outdoors
• Before inserting or removing contact lenses
• Before flossing your teeth
• Before and after attending to cuts, scrapes, burns or other breaks in the skin
• After contact with body fluids such as blood, sputum, vomit, urine or feces.
Good Handwashing Technique

Good handwashing technique involves first, removing germs from the hands and second, avoiding recontamination when leaving the washroom. The six steps to proper handwashing are listed below. Of these, the most common problem is failing to wash all parts of the hands, a step that should take about 20 seconds. Most people scrub with soap for only nine or ten seconds.

How to Wash Your Hands

1. Wet your hands.
2. Apply soap. Use plain soap.
3. Rub hands together. It takes about 20 seconds to rub all parts of your hands:
   - Palms
   - Between your fingers
   - Backs
   - Wrists
   - Thumbs
   - Fingertips
   - Nails
4. Rinse for 10 seconds or until all the soap is gone.
5. Dry your hands with a clean disposable towel.
6. Use the towel to turn off the taps and let yourself out the door.
   
   Remember to leave the washroom neat and tidy.

Tip: View the handwashing videos to see good handwashing technique.
www.dobugsneeddrugs.org/educational-resources/handwashing-videos/

Tip: Use the Soaping Up sign to see how to wash all parts of your hands (step 3 above). The sign shows an easy way to wash your fingertips and nails. See Activity #1 for the Soaping Up sign.

Hand Drying

Hand drying is just as important as hand washing. Wet hands pick up germs more easily than dry hands. Drying with a clean disposable towel is preferable to using a hot air dryer. The friction of drying the hands with a towel removes 42% more germs than washing alone. Since germs are easily transferred onto the towel, towels should not be shared.

Importantly, paper towels provide a way to turn off the taps and open the washroom door without recontaminating the hands. If hot air dryers are the only way to dry the hands, look for alternate solutions to turning off the taps (such as using the wrist or using a buddy system) and opening the door (such as pushing the door open with your forearm).
Bacteria and Viruses

Germs: Bacteria and Viruses

Both bacteria and viruses can cause respiratory infections, but most respiratory infections are caused by viruses. All colds, laryngitis and influenza and most sore throats and coughs are viral infections. The vast majority of cases of bronchitis (chest colds) and sinusitis are due to viruses. Ear infections, which are common in young children, can be due to either bacteria or viruses. Pneumonia, which is a serious infection of the lungs and is sometimes fatal, can be caused by either bacteria or viruses.

Good Bacteria and Bad Bacteria

Although advertising would have us believe differently, not all bacteria are harmful. There are over three billion different kinds of bacteria and they make up about 60% of all the living things on earth. Bacteria live in our intestines and on our skin where they help with digestion and immunity. There are actually 10 times more bacterial cells in our bodies than human cells! Most bacteria in the body are good. Only a few bacteria are bad and cause infections.

Causes of Common Respiratory Infections

<table>
<thead>
<tr>
<th>Illness</th>
<th>Caused by</th>
<th>Will an antibiotic help?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bacteria</td>
<td>Viruses</td>
</tr>
<tr>
<td>Colds</td>
<td>Never</td>
<td>Always</td>
</tr>
<tr>
<td>Influenza</td>
<td>Never</td>
<td>Always</td>
</tr>
<tr>
<td>Sore throat</td>
<td>Rarely</td>
<td>Most</td>
</tr>
<tr>
<td>Laryngitis</td>
<td>Never</td>
<td>Always</td>
</tr>
<tr>
<td>Bronchitis*</td>
<td>Rarely</td>
<td>Most</td>
</tr>
<tr>
<td>Sinus infection</td>
<td>Rarely</td>
<td>Most</td>
</tr>
<tr>
<td>Ear infection</td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* In otherwise healthy people
Use Antibiotics Wisely

Use Antibiotics Only When Really Needed

Antibiotics are medications that work against bacteria, but not against viruses. In addition, not all bacterial infections require antibiotic treatment. With the exception of pneumonia, most respiratory tract infections get better on their own, without antibiotics. Even ear infections, which may be caused by bacteria, often clear up just as quickly without antibiotics. The Canadian Paediatric Society recommends watchful waiting for ear infections in children over the age of six months to see if the infection will go away on its own.

Although we sometimes hope that antibiotics will work against viral infections, they don’t. There are no medications to cure viral infections, so it is important to protect yourself in other ways. Vaccination against influenza offers good protection. On a daily basis, the best way to protect yourself and others is to wash your hands.

Antibiotics and Antibacterial Products

Responsible Use of Antibiotics and Antibacterial Products

Antibiotic resistance is a negative side effect of antibiotic use. Antibiotic resistance is a defence mechanism of bacteria that allows them to survive and multiply, even when an antibiotic is present. Infections that are caused by resistant bacteria are difficult to treat and are sometimes fatal. Using antibiotics when they are not needed increases the chances of resistant infections occurring.

Although antibiotic resistance is a concern for the medical community and patients, it also is an issue for consumers as there are many soaps and cleaning products on the market today that contain antibacterial agents that can lead to antibiotic resistance.

Soaps

Use plain soap. Plain soap works just as well as antibacterial soap to prevent infections, but plain soap has the advantage of not leading to antibiotic resistance. The objective of handwashing is to remove germs from the hands and rinse them away, rather than to attack all bacteria (good and bad bacteria) with antibacterial agents. Triclosan is the most common antibacterial ingredient that is added to soaps and cleaning products and should be avoided. The Government of Canada has recently ruled that triclosan is toxic to the environment.
Hand Sanitizers

Only alcohol-based sanitizers are recommended by the Public Health Agency of Canada and Alberta Health Services. Alcohol-based hand sanitizers kill many germs on the hands and are especially useful when soap and water are not available, such as on the playground or on a bus. Importantly, alcohol-based hand sanitizers do not lead to antibacterial resistance.

However, alcohol-based hand sanitizers have several limitations. They are not a substitute for handwashing. They do not clean the hands nor do they work if the hands are greasy or dirty. Because these products are flammable and poisonous if consumed, they should not be placed near a source of heat or over a source of electricity and should be in a supervised location. They are best located in areas where there is no access to soap and water. For example, alcohol-based hand sanitizers should not be placed near a sink or in the washroom.

Cleaning vs. Disinfecting

Cleaners are products that lift germs and the dirt and grime that attract germs and allow them to be washed away. Disinfectants contain chemicals that attack germs in order to kill them. Generally disinfectants are not needed unless you are cleaning up body fluids such as blood, vomit, sputum, urine or feces. Disinfectants must be used according to instructions (at the proper concentration and for the right amount of time) in order to be effective. If not used properly, disinfectants can lead to antibiotic resistance.

Plain vs. Disinfecting Wipes

Use plain cleaning wipes. Plain wipes, like plain soap, remove germs without leading to antibiotic resistance. Disinfecting wipes, on the other hand, contain chemicals that attack germs. In order for disinfecting wipes to be effective the instructions state that surface must remain wet for 10 minutes, which is often difficult to achieve. If not used properly, disinfecting wipes will not kill germs and can lead to antibiotic resistance.

REMEMBER

- Use antibiotics responsibly
- Use plain soap
- Avoid products containing triclosan
- Alcohol-based hand sanitizers are appropriate when soap and water are not available but are not a substitute for handwashing
- Only alcohol-based sanitizers are recommended by the Public Health Agency of Canada and Alberta Health Services
## Recommendations for Hand Hygiene Products

<table>
<thead>
<tr>
<th>Hand Hygiene Product</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plain soap</td>
<td>• <strong>Recommended</strong>&lt;br&gt;• Plain soap removes germs and prevents infections&lt;br&gt;• Plain soap does not lead to antibiotic resistance</td>
</tr>
<tr>
<td>Antibacterial soap</td>
<td>• <strong>Not recommended</strong>&lt;br&gt;• No health benefit - does not work any better than plain soap to prevent infections&lt;br&gt;• The most common antibacterial ingredient is triclosan&lt;br&gt;• Triclosan leads to antibiotic resistance, a serious medical concern</td>
</tr>
<tr>
<td>Alcohol-based hand sanitizers*</td>
<td>• Recommended if soap and water are not available&lt;br&gt;• Must be at least 60% alcohol to be effective&lt;br&gt;• Ensure alcohol (ethanol, isopropanol, n-propanol) is the only active ingredient&lt;br&gt;• Should not contain triclosan or other agents that lead to antibiotic resistance</td>
</tr>
</tbody>
</table>

**Precautions:**
- Flammable<br>- Poisonous if ingested

- High alcohol content makes these products flammable and poisonous if ingested<br>- Should not be located near a source of heat or above a source of electricity<br>- Avoid placing in unsupervised locations

- Not a substitute for handwashing
- Best if placed in locations where handwashing is not immediately available<br>- Inappropriate within the washroom or near a sink

- Can be confused with liquid soap
- Pump dispensers of liquid hand soap and hand sanitizers look alike<br>- Do not place hand sanitizer near the sink

*Only alcohol-based sanitizers are recommended by the Public Health Agency of Canada and Alberta Health Services.*
Handwashing

This activity will show students how to properly wash their hands.

Materials

- Handwashing video on-line or contact us in advance to order on DVD
- How to Wash Your Hands sign - printed from page 11 or ordered in advance
- Soaping Up sign – printed from page 12 or ordered in advance

Ordering Information

- Print materials can be ordered from this webpage: [www.dobugsneeddrugs.org/educational-resources/print-material-catelog/](http://www.dobugsneeddrugs.org/educational-resources/print-material-catelog/)
- If you do not have access to a computer and require the handwashing videos on a DVD playable from a DVD player, please contact us at info@dobugsneeddrugs.org

Optimal Group Size

- Any size

Directions

- Let students know they are going to be watching a handwashing video showing them the proper way to wash their hands.
- Ask them to watch the video carefully and try to remember the steps.
- Ask the students to imitate the steps of handwashing along with the video.
- After playing the video once, ask students if they can remember the steps of handwashing.
- Using the How to Wash Your Hands poster, review the steps of handwashing with students.
- Remind students that they need to rub their hands together for 20 seconds with soap to get rid of the germs. Using a song that takes 20 seconds, like Happy Birthday or Twinkle Twinkle, will help them to time their handwashing.
- Use the Soaping Up poster to review the parts of the hands that need to be washed.
- Find an appropriate time for students to wash their hands, such as before snack time or after coming in from outside, to practice what they have learned.
- Have students plan handwashing routines for their home. Include when to wash and how to wash.

Discussion Points

- Discuss with students when they need to be washing their hands.
- Have students think about how they could implement handwashing routines for their homes.
- Ask students to pass the message of proper handwashing along to their families and friends.
How to wash your hands

1. Wet your hands
2. Apply plain soap
3. Rub hands together
4. Rinse your hands
5. Dry your hands
6. Turn off taps with a paper towel

Leave the washroom neat and tidy
Soaping up

Using water and plain soap, rub your hands together for 20 seconds.

1. Palms
2. Between Fingers
3. Backs
4. Wrists
5. Thumbs
6. Fingertips
7. Nails
The Web of Infection

This activity will show students how easily one person with an infection can make a large number of other people sick.

Materials

- Web of Infection Contact Record
- Web of Infection Scenarios

Optimal Group Size

- Groups of eight

Directions

- Divide the children into groups of eight.
- Photocopy one copy of the Web of Infection Contact Record for each group.
- Place the Web of Infection Contact Record in the center where all of the students in the group can see it.
- Tell the group that Bob has influenza (flu) and has not done anything to stop spreading the flu to other people.
- Select one student to read out the scenarios from the Web of Infection Scenarios, or read them yourself.
- As each scenario is read, write the name of one of the students in the group into one of the “Student” boxes.
- Once all of the scenarios have been read, ask each student how many people live in their home and write the number in the adjacent box.
- Tally up the potential number of individuals that could be infected by Bob-the-Slob.
- Alternative Activity: Have each group of students write their own scenario situation for Bob-the-Slob or another character of their choice. Use these new scenarios as a starting point for this activity.

Discussion Points

- Ask the students to talk about how germs can be spread for each of the eight situations. Discuss the ways that infections can be spread by the hands.
- Ask for suggestions about what they can do to protect themselves from getting an infection from surfaces in public places such as a mall. What could Bob-the-Slob have done to stop spreading germs to others.
- Discuss how one person with an infection can infect many others.
- Besides people in the home, who else could have been infected? (friends, classmates, teammates from sports, etc.). Estimate the total of additional people who could be infected (this will only be approximate). Encourage students to think about how this can go on and on and could lead to an epidemic.
Web of Infection Contact Record

Student #1
Number of people in household

Student #2
Number of people in household

Student #3
Number of people in household

Student #4
Number of people in household

Student #5
Number of people in household

Student #6
Number of people in household

Student #7
Number of people in household

Student #8
Number of people in household

TOTAL _________
Web of Infection Scenarios

Introduction:
Bob-the-Slob is at the mall. He is sick. He has a runny nose, sore throat and a cough.

1. Bob-the-Slob is in line at the Food Court right behind ____________________________ (Student #1). Achoo! Bob-the-Slob doesn’t cover his mouth and sneezes into the air.

2. Next, Bob-the-Slob blows his nose and goes to get some ketchup for his fries. He presses down on the pump for the ketchup. ____________________________ (Student #2) is also eating at the Food Court and gets ketchup from the same dispenser.

3. Bob-the-Slob coughs into his hand and then grabs the hand rail on the escalator. Later ____________________________ (Student #3) gets on the escalator and holds onto the hand rail.

4. Bob-the-Slob is beginning to feel like he has a fever. He goes to the drug store for some medicine. He hands the container and some money to the cashier, ____________________________ (Student #4).

5. Bob-the-Slob decides to take some pills right away and finds the water fountain. ____________________________ (Student #5) is next in line at the water fountain.

6. Bob-the-Slob has run out of tissues and wipes his nose with his hand. He pushes on the door to go home. ____________________________ (Student #6) goes out the same door.

7. Bob-the-Slob runs to catch the bus. He starts coughing and coughs right at ____________________________ (Student #7).

8. On the bus Bob-the-Slob holds onto the bus rail. He get off the bus stop near his home. ____________________________ (Student #8) gets on and holds onto the same bus rail.
Battle of the Germs

This activity teaches students about how infections are spread and how to stop the spread of infections.

Materials

• Paired Unfortunately and Fortunately Battle of the Germs Activity Cards

Optimal Group Size

• Two groups

Directions

• Cut out the Battle of the Germs cards before starting the activity.
• Keep an original copy for yourself as the answer key.
• Mix the cards and distribute one card to each student.
• If you have too many cards, give some students more than one.
• If you don’t have enough cards, have students share the cards.
• If you have an uneven number of students, keep one of the cards for yourself and play along with the group.
• Have each student walk around the classroom and find the student with the card that has the same picture as his/her own.
• Once everyone has found their match, have each pair of students read their cards out loud to the rest of the group, the Unfortunately card first and the Fortunately card second.

Discussion Points

• Ask the students to tell how infections are spread as they relate to the Unfortunately cards.
• Ask the students to describe how the action on the Fortunately cards stopped the infection.
Megan has a sore throat. She has been coughing for a couple of days. She knows to wash her hands often, but can’t when she is on the playground. She keeps an alcohol-based hand sanitizer in her pocket to kill the germs that might be on her hands.

Julian has a cold. He is all stuffed up. Ahhh . . . Atchoo! He covers his sneeze with a tissue so that germs don’t go into the air.

Michael has a tickle in his throat and is coughing. He coughs into his sleeve to keep from spreading germs to others.

Nicole’s brother is sick. They share a bathroom at home and Nicole is afraid she will get germs from her brother’s toothbrush. She keeps her toothbrush apart from the other toothbrushes so that germs from her brother’s toothbrush don’t get onto her toothbrush.
Tyler has influenza. He has a runny nose and itchy eyes. He can’t stop himself from rubbing his nose and eyes.

He washes his hands with plain soap and water to get rid of the germs on his hands.

Emily has influenza. She is feeling really sick. Her mother brings her fruit juice to help her feel better.

She doesn’t share her fruit juice with anyone else at home to keep from spreading influenza to others.

Ethan has a cold. He has an itchy nose and forgot to sneeze into a tissue and sneezed into his hand instead.

He remembered to wash his hands with plain soap and water right away.

Ryan has to blow his nose quite often because he has a cold.

He remembers to throw the used tissues into the garbage right away and to wash his hands.
Emily knows she should wash her hands after using the washroom, but there is no soap.

Matthew’s dad has the flu. He washes his hands to keep from spreading the virus to his family. Usually there is only one towel next to the sink.

Sara has washed her hands but is worried that she might get germs on her hands when she touches the taps to turn them off.

Joshua has washed his hands after using the washroom, but is afraid that he may get germs on his hands when he touches the washroom door handle.

She told an adult and then the caretaker filled the dispenser with soap. In the meantime she used an alcohol-based hand sanitizer.

Matthew’s mother put out separate towels for everyone in the family to keep from spreading germs to others.

She dries her hands with a paper towel and uses the towel to turn off the taps.

He uses the paper towel from drying his hands to open the washroom door to keep from getting germs on his hands. Then he throws the towel away.
Jessica’s lips are chapped because of the cold weather. She didn’t borrow lip balm from her friends. She used her own lip balm so that she wouldn’t get germs from someone else.

Brandon has a runny nose and sore throat and is having trouble sleeping. His mother knows that he has a cold and doesn’t need to see a doctor. She asks the pharmacist about medications that can help him feel better.

Last year Alex got influenza. He had a fever, headache and runny nose and felt achy all over his body. This year his whole family went for influenza vaccinations and no one got influenza.

Ashley is on a field trip and a lot of her classmates have coughs and colds. She uses an alcohol-based hand sanitizer to kill any germs on her hands before eating her snack.
Battle of the Germs (Two)

This is another activity that reinforces the messages in the original Battle of the Germs.

Materials

- Blank Battle of the Germs Activity Cards
- Pens or pencils

Optimal Group Size

- Two Groups

Directions

- Photocopy the blank Battle of the Germs cards.
- Cut out the blank Battle of the Germs cards before starting the activity.
- Split the students into two groups.
- Give each group four blank Unfortunately cards.
- Have the groups write their own Unfortunately situation onto their card about a case where infections could be spread, just like in Activity #3.
- Start by having group one read an Unfortunately card out loud to the other team.
- The second team must then respond by giving a Fortunately answer to the situation that was read out by the first team.
- Then the second team reads an Unfortunately card to the first group, and the first group responds with a Fortunately answer.
- Continue taking turns in this manner until all cards have been read. It’s alright if some situations are repeated as this will help reinforce the good behaviour.
- Note: If younger children are playing this game, have some of the older students help with writing on the cards.
- Optional: Reverse the process. Start by passing out a set of Fortunately cards for each group to write down a fortunately situation. Then take turns asking the other group to come up with Unfortunately answers.

Discussion Points

- Ask the students to tell how infections are spread as they relate to the Unfortunately cards.
- Ask the students to describe how the action on the Fortunately cards stopped the infection.
House of Germs

This activity helps students to identify areas where germs are likely to be present in their homes.

**Materials**

- House Coloring Sheet
- Colored pencils or markers

**Optimal Group Size**

- Any size

**Directions**

- Photocopy one coloring sheet for each student.
- Ask the students to color the sheet and to circle areas on the coloring sheet where they think germs might hang out.
- Lead a group discussion about the areas on the coloring sheet where germs might be found. Make a note of the most common examples and review at the end.
- Brainstorm locations in their out-of-school-care program where there might be germs.

**Discussion Points**

- Ask students to post the coloring sheet at home and discuss with family members.
- Ask students to discuss how they can prevent infections at home such as making sure all family members know how and when to wash, not sharing towels, respiratory etiquette and keeping hands away from the face.
- Suggest that students develop handwashing posters and reminders for home and the out-of-school-care program.
Potato Experiment

This activity will teach students about germs and why it is important to wash their hands before handling food. Students will actually be able to observe germs growing on the potato.

Materials

- Two parboiled potatoes. Waxy potatoes work the best.
- Two clean, unused plastic Ziploc bags.
- Labels for bags marked “Washed Hands” & “Unwashed Hands” or a marker for writing on bags
- Camera (optional)

Optimal Group Size

- Any size

Directions

- Ahead of time, peel the potatoes and parboil for 2-3 minutes. Wash your hands before handling the parboiled potatoes to keep the germs off. Using a clean utensil, immediately place the potatoes in the zip lock bags.
- Take the potato from the “Unwashed Hands” bag and pass it around the room before students have washed their hands.
- Once everyone has touched the potato place it back in the “Unwashed Hands” bag. Zip up the bag making sure it is completely sealed.
- Ask two or three students to wash their hands properly. Pass the other potato among these students. Place the potato in the bag marked “Washed Hands”. Zip up the bag making sure it is completely sealed.
- Place both potatoes in a warm place for 3-5 days and then discuss observations as a group.
- Note: Both potatoes will show growth, but the “Unwashed Hands” potato will have more growth.

Discussion Points

- Ask students to predict what will happen to each potato and why.
- Have students keep a notebook to record the daily changes or to sketch a daily picture of what the changes look like (if a camera is available have someone take a picture of the changes).
- If the experiment does not go as predicted, get students to think of why things didn’t work. (Maybe the clean potato was dropped or someone didn’t clean their hands very well.)
- Ask students to think about how many germs they have on their hands after observing the unwashed potato.
- Have students think about why it is important to keep their hands clean and why they should be practicing proper handwashing technique before eating or preparing food.
Where Germs Hang Out

This activity will help to identify the most common places where germs might be hiding in the out-of-school-care program facility.

Materials

- White or colored paper
- Crayons, markers, or pencil crayons
- Scissors
- Tape for hanging up hand cut outs

Optimal Group Size

- Any size

Directions

- Ask students to trace the outline of their hands on the paper and color them with “germs”.
- Students can then cut out their handprints.
- Ask students to think of places in the facility where they think the most germs might be.
- 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 visual reminder of places where germs can be transferred. Discussion will focus on which places have the most handprints and why.

Discussion Points

- Tally the number of handprints for each type of location. For example, how many handprints were on door knobs? How many were on light switches? Where do you see the most handprints?
- Why do you think those particular places have the most handprints?
- What happens to you if you don’t wash your hands after touching something with germs on it?
- What can happen to someone else if you touch something when you have germs on your hands?
- What is the best way to stop the spread of germs from one person to another?
Word Search and Word Scramble

These activities will help to teach students about places where germs can be found and words associated with handwashing and respiratory illnesses.

Materials

- Word Search puzzle
- Word Search answer key
- Word Scramble puzzle
- Word Scramble answer key
- Pens, pencils

Optimal Group Size

- Any size

Directions

- Ahead of time, make photocopies of the Word Scramble and Word Search puzzles.
- These activities can be used in conjunction with any of the activities or as a separate activity for the students.
- Students can work on the puzzles individually or in groups.
- Students can also take these home to use later on.
- As an alternative activity, have students come up with other words related to handwashing, respiratory illnesses, etc. and help them to generate their own Word Search sheets or make up their own Word Scramble puzzles.
- **Note:** There are a number of free Word Search generators on the internet for use by students.

Discussion Points

- Have students discuss words found in the puzzles and why they are relevant.
- Ask students to discuss what they have learned and why it is a valuable lesson.
Where are the Germs?

Books  Hands  Shopping Cart
Cell Phone  iPad  Sink
Crayons  Keyboards  Telephone
Desks  Lights Switch  Toilet
Dogs  Mouse  Towels
Doorknobs  Pencils  Toys
Escalator  Pens  Purse
Garbage  Purse  Remotes
Handrails
Where are the Germs? Answer Key

C Q E N O H P E L E T V K S D
D T S K O O B Z O I Z U Y U O
C E L L P H O N E Y T O L T O
S I T E L I O T X N T W R T R
S K S E D M N H K Z T A N O K
M L I G H T S W I T C H S W N
Y F F E G A B R A G P S R E O
L S E T O M E R N K N I S L B
A X D O G S L I C N E P X S S
L P E N S H P H R P U R S E R
E S U O M P S D R A O B Y E K
H R N Y O Q U N T D A P I V J
F U D H D E S C A L A T O R N
R A S S C R A Y O N S D F B O
S D N A H H S L I A R D N A H
Word Scramble

Unscramble the words below.

1. vfree
2. innuelzfa
3. aetylhh
4. eros tahrot
5. rae tnoniefic
6. goucsh
7. dolsc
8. ttasioibinc
9. iusserv
10. ricaabet
11. istnsearce
12. icks
13. emgr
14. ahwdhnngias
15. psao
Word Scramble Answer Key

1. fever
2. influenza
3. healthy
4. sore throat
5. ear infection
6. coughs
7. colds
8. antibiotics
9. viruses
10. bacteria
11. resistance
12. sick
13. germ
14. handwashing
15. soap
Appendix
**HAND HYGIENE CHECKLIST**  
Use this checklist to assess hand hygiene facilities in your facility.

<table>
<thead>
<tr>
<th>Item</th>
<th>Observation</th>
<th>Hygiene principle</th>
<th>Possible solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is soap available in the washroom?</td>
<td>Yes □ No □</td>
<td>• Soap is needed to wash germs from the hands. Water alone does not work.</td>
<td></td>
</tr>
<tr>
<td>Are you using plain soap?</td>
<td>Yes □ No □</td>
<td>• Plain soap removes germs and prevents infections. Antibacterial soap does not work any better than plain soap and has the disadvantage of leading to antibiotic resistance.</td>
<td></td>
</tr>
<tr>
<td>Plain soap does not contain triclosan.</td>
<td></td>
<td>• Do not use antibacterial soap because it contains triclosan, a chemical that can lead to antibiotic resistance.</td>
<td></td>
</tr>
<tr>
<td>Does the sink have manual taps?</td>
<td>Yes □ No □</td>
<td>• Hands can be recontaminated when turning off manual taps.</td>
<td></td>
</tr>
<tr>
<td>Does the sink have push-type taps?</td>
<td>Yes □ No □</td>
<td>• Push-type taps require repeated contact as they do not stay on long enough for proper handwashing. Hands can be recontaminated.</td>
<td></td>
</tr>
<tr>
<td>Is warm water available?</td>
<td>Yes □ No □</td>
<td>• Warm water works better than cold water to remove dirt, grime, germs and soap.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cold water is a deterrent to good handwashing.</td>
<td></td>
</tr>
<tr>
<td>Is there a paper towel dispenser?</td>
<td>Yes □ No □</td>
<td>• Paper towels are the preferred way to dry hands. The friction of drying with a towel removes 42% more germs than washing alone.</td>
<td></td>
</tr>
<tr>
<td>Are paper towels available?</td>
<td>Yes □ No □</td>
<td>• If taps are not automatic and if hands are needed to open the washroom door, paper towels are needed to avoid recontamination.</td>
<td></td>
</tr>
<tr>
<td>Are hot air dryers available?</td>
<td>Yes □ No □</td>
<td>• Hot air dryers can leave the hands warm and moist, ideal conditions for the re-growth of organisms.</td>
<td></td>
</tr>
<tr>
<td>Is the washroom clean and well maintained?</td>
<td>Yes □ No □</td>
<td>• Clean washrooms encourage and facilitate proper handwashing and reduce the chance of contaminating the hands.</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Observation</td>
<td>Hygiene principle</td>
<td>Possible solutions</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Are hand sanitizers located in the washroom?</td>
<td>Yes</td>
<td>• Hand sanitizers should not be located in the washroom and should be located where soap and water are not available.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>• Hand sanitizers and soap dispensers and bottles look alike and can be confused. Hand sanitizers are not for handwashing.</td>
<td></td>
</tr>
<tr>
<td>Do you provide alcohol-based hand sanitizer* in places where soap</td>
<td>Yes</td>
<td>• If hands are not dirty or greasy, hand sanitizers that contain alcohol (&gt;60% ethanol, propanol or n-propanol) as the only active ingredient will kill germs and not lead to antibiotic resistance.</td>
<td></td>
</tr>
<tr>
<td>and water are not available?</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the washroom door need to be touched to exit the washroom?</td>
<td>Yes</td>
<td>• Hands can be recontaminated by touching the washroom door when exiting.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the waste can near or outside the washroom door?</td>
<td>Yes</td>
<td>• Placing the waste can near or outside the washroom door encourages using a paper towel to open the door on exiting.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are handwashing signs or stickers posted in the washroom?</td>
<td>Yes</td>
<td>• Handwashing signs are good reminders about the importance of handwashing.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a written policy or recommendations about hand hygiene</td>
<td>Yes</td>
<td>• Written policies or recommendations about handwashing help everyone understand the importance of proper handwashing in preventing illness and ensure the health of children in your care.</td>
<td></td>
</tr>
<tr>
<td>in your childcare facility?</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are out-of-school-care staff positive role models?</td>
<td>Yes</td>
<td>• Childcare staff should know the basics of how and when to wash both to protect themselves and to set a good example.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have staff received information about hand hygiene?</td>
<td>Yes</td>
<td>• Staff need to understand the importance of handwashing in preventing infections.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>• Evidence that handwashing works can be empowering and encourages leadership.</td>
<td></td>
</tr>
</tbody>
</table>

*Only alcohol-based hand sanitizers are recommended by Alberta Health Services and the Public Health Agency of Canada. See pages 8-9 for recommendations about placement of alcohol-based hand sanitizers.
# Practical Solutions to Handwashing Problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Hygiene Principle</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soap or paper towels not available</td>
<td>Handwashing by students and caregivers is the best way to stop the spread of infections in schools.</td>
<td>Inform custodial staff and/or facilities manager. Suggest that the facility manager hold an information session for custodial staff about the importance of handwashing. Handwashing protects custodial staff too.</td>
</tr>
<tr>
<td>Taps go off automatically and water does not run long enough</td>
<td>Water needs to run long enough to rinse off soap and germs.</td>
<td>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.</td>
</tr>
<tr>
<td>Warm water not available</td>
<td>Cold water is a deterrent to handwashing.</td>
<td>Discuss with facility management. 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.</td>
</tr>
<tr>
<td>Children cannot reach the taps or sink</td>
<td>Handwashing is important for all children.</td>
<td>Provide a stool or step that does not tip.</td>
</tr>
<tr>
<td>Need to conserve water. Taps should not be left running.</td>
<td>Good handwashing technique includes using a paper towel to turn off the taps. This prevents recontamination of the hands from dirty taps.</td>
<td>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.</td>
</tr>
<tr>
<td>Paper towel dispenser is far away from the sink</td>
<td>Hands can be recontaminated by touching the lever or button to dispense a paper towel.</td>
<td>Show students how to use an elbow or forearm to dispense the towel or suggest they get the paper towel before washing their hands.</td>
</tr>
<tr>
<td>Paper towel dispenser has a lever or button</td>
<td>Hands can be recontaminated by touching the lever or button to dispense a paper towel.</td>
<td></td>
</tr>
<tr>
<td>Wastebasket is not near the door</td>
<td>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.</td>
<td>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 next nearest wastebasket.</td>
</tr>
<tr>
<td>Problem</td>
<td>Hygiene Principle</td>
<td>Solution</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Handwashing takes too much time</td>
<td>Handwashing prevents illness and reduces absenteeism. In the long run it saves time.</td>
<td>Establish routine times for students to wash their hands. Before eating and after coming indoors are ideal. Teach good handwashing technique and remove barriers so that students become proficient.</td>
</tr>
<tr>
<td>Custodial staff concerned about the mess in the washroom</td>
<td>Washrooms should be neat and tidy.</td>
<td>Reinforce the final message of good handwashing with the students to properly throw away their paper towel in the wastebasket.</td>
</tr>
<tr>
<td>Don’t know if antibacterial soap is supplied in your facility</td>
<td>Washing with plain soap removes germs and prevents infections. Plain soap does not lead to antibiotic resistance. Antibacterial soap does not work any better than plain soap in preventing infections and has the disadvantage of leading to antibiotic resistance.</td>
<td>Ask about the soap that is used in your facility. Read the ingredients. If the soap contains “Triclosan” or “Benzalkonium chloride” or any other chemical ending in “-nium”, it is antibacterial soap. If antibacterial soap is in use, suggest switching to plain soap. Plain soap is generally less expensive.</td>
</tr>
</tbody>
</table>