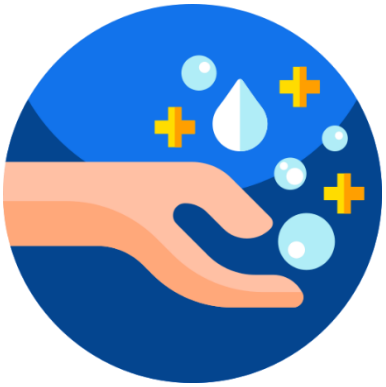
Handwashing and Health

Lesson Plan for Students in Kindergarten to Grade 3



2024

DO BUGS NEED DRUGS?

antibiotic wise.ca

Overview

This lesson plan is for teachers, public health nurses, ECE students, or health care students to use in a primary level classroom. The lesson starts with an introduction, done as an interactive discussion with the students. The second part of the lesson is learning and practicing the six steps of proper handwashing. There are optional activities at the end of the lesson plan for enhanced learning. The lesson plan can be adapted to fit your needs and the needs of the classroom. This lesson plan is designed to be approximately 40 mins.

We can provide teaching kits to colleges, universities, or schools free of charge. We ask that the kits be used over multiple years, and that you restock or replace the kit contents as needed. We also ask that you report your teaching back to us as this number of students taught in BC is reported to the Ministry of Health.

Please report teaching by visiting: **antibioticwise.ca/report-teaching**

Materials included in the teaching kit

- UV light
- Glo Germ lotion
- Print materials for students to bring home
- Stickers and posters for classroom display
- Handwashing Hero stickers for students

Learning Outcomes

- Following this lesson, students will be able to:
  - Identify that bacteria and viruses cause illness.
  - Identify that antibiotics work only for illness caused by bacteria, not viruses.
  - Indicate when to wash their hands.
  - Demonstrate proper handwashing techniques.

How the lesson aligns with the BC Curriculum

Science

- Share ideas orally
- Caring for self, family, classroom, and school

Physical & Health Education

- Practices that promote health and well-being
- Illness prevention

Career Education

- Roles & responsibilities at home, at school, and in the local community

For more lesson plans and teaching resources, visit **antibioticwise.ca/teaching**

Introduction to Bacteria and Viruses

Length: 15 minutes

Materials: Whiteboard and marker to write responses down (optional)

Have the students sit at the carpet area or desks to introduce the material. You can adapt as needed to suit your needs and the needs of the classroom.

- Introduce yourself as a guest speaker. Include a few sentences on why you think it is important to teach about healthy living.
- Use questions and answer technique to engage students and guide them through introduction. Use the information below *Answers you are looking for* to help to summarize the students' responses and the main points.

Possible questions for interactive teaching during introduction:

1 **Have you ever been sick and had to stay home for a few days or more? What made you get sick?**

Answers you are looking for:

Germs can make us sick. Some people use the word germs, and you may also hear the words bacteria and virus. Bacteria and virus are the scientific terms for germs. Bacteria and viruses are so small they are almost invisible. You need a special tool called a microscope that zooms in really close to be able to see bacteria and viruses.

2 **Where do we find bacteria and viruses?**

Answers you are looking for:

Everywhere

3 **If there are viruses and bacteria everywhere, why don't we get sick all the time?**

Answers you are looking for:

Our skin protects us, we keep clean by washing our hands, we keep our hands away from our eyes, nose and mouth, we get vaccines/immunizations to protect us from diseases. Other healthy behaviours can be mentioned too – eating healthy, getting enough sleep, and getting exercise. Washing our hands with plain soap and water is one of the best ways to keep us healthy.

Continued >>

Possible questions for interactive teaching during introduction (continued):

4 **How many of you had heard the words bacteria and virus before today? Can you list some of the ways they are similar, and then we will talk about the ways they are different.**

Answers you are looking for:

- Bacteria and viruses are both really small and they can both cause illness.
- They are different because bacteria are alive and can reproduce – make copies of themselves on their own. Viruses are not really alive – they have to get into another cell to make copies of itself. They also look very different under a microscope.
- *Optional: Show pictures of how bacteria and viruses are different. See handout on* ***page 9****. (Speak to the differences: bacteria are bigger than viruses, bacteria are round and viruses are more angled)*

5 **Are all bacteria bad for you?**

Answers you are looking for:

Most bacteria are actually good for you – they work hard inside your body to digest the food you eat, and the good bacteria on your skin protects you from getting sick too. Bacteria are also important for the earth – they help make soil by breaking up dead organisms, and they are important in the ocean. They have been around for longer than humans on earth and they make up more of earth's weight than humans do. It's true that sometimes bacteria make us sick, but many bacteria help to protect us too.

6 **Who has changed their mind that all bacteria are bad for you?**

Answers you are looking for:

Reaffirm that most bacteria are good for our bodies and good for the earth.

7 **Who knows what antibiotics are?**

Answers you are looking for:

Antibiotics are medicines that kill bacteria. Antibiotics do not work against viruses. Remember, bacteria and viruses are very different and antibiotics only work for illnesses caused by bacteria.

8 **Most colds and flus are caused by viruses. What do you think, are antibiotics needed for colds and flus?**

Answers you are looking for:

No, antibiotics kill bacteria, not viruses, and most colds/flus are caused by viruses. You don't need to take antibiotics for illness caused by viruses.

Continued >>

Possible questions for interactive teaching during introduction (continued):

9 **Should we take antibiotics whenever we're sick, just in case the illness is caused by bacteria?**

Answers you are looking for:

You should only take antibiotics when your doctor tells you. You will also kill all the good bacteria that you need for digesting your food if you take antibiotics when you don't need them. Bad bacteria can also get stronger if they are around antibiotics when they're not needed so it's important to only take antibiotics when we really need them.

10 **Who remembers what the best way to stay healthy is?**

Answers you are looking for:

Wash your hands!

11 **When are important times to wash your hands?**

Answers you are looking for:

- After you use the washroom
- Before and after you eat
- After you touch pets/animals
- After you come in from outside
- After you sneeze or blow your nose
- Any time your hands are dirty

Handwashing Learning

Length: 20-25 minutes

Materials: UV light, Glo Germ lotion, access to a sink with soap and paper towel, computer for optional video

Review handwashing technique with students while they stay seated at their desk or on the carpet. Students follow along **pretending to wash their hands**. Demonstrate the six steps of handwashing as they follow along.

1. **Wet your hands: Pretend to put hands under the tap.**
2. **Apply soap: Pretend to get 1-2 squirts of plain soap from the dispenser to get hands soapy.**
3. **Rub hands together for 20 seconds: Talk aloud while children pretend to rub hands together (getting all areas of the hands, the back of hands, between fingers, nails, thumbs, wrists).**
   Tell the children they should wash their hands as long as it takes to slowly count '*Scrubba Dub 1, Scrubba Dub 2, up to 10*', or a short song like '*Happy Birthday*' or '*Twinkle, Twinkle Little Star*' two times.
4. **Rinse hands for 10 seconds: Pretend to rinse hands under tap.**
5. **Demonstrate pretending to get a paper towel and use it to dry your hands.**
   Note: Paper towels are an important part of handwashing as they remove germs too! Towels are ok in the home, but paper towels are recommended in public areas like at school. Wet hands pick up more bacteria from surfaces, so it is important to dry your hands.
6. **Turn off taps with pretend paper towel.**

Optional Videos:

"Wash Your Hands" (2 mins 23 seconds)

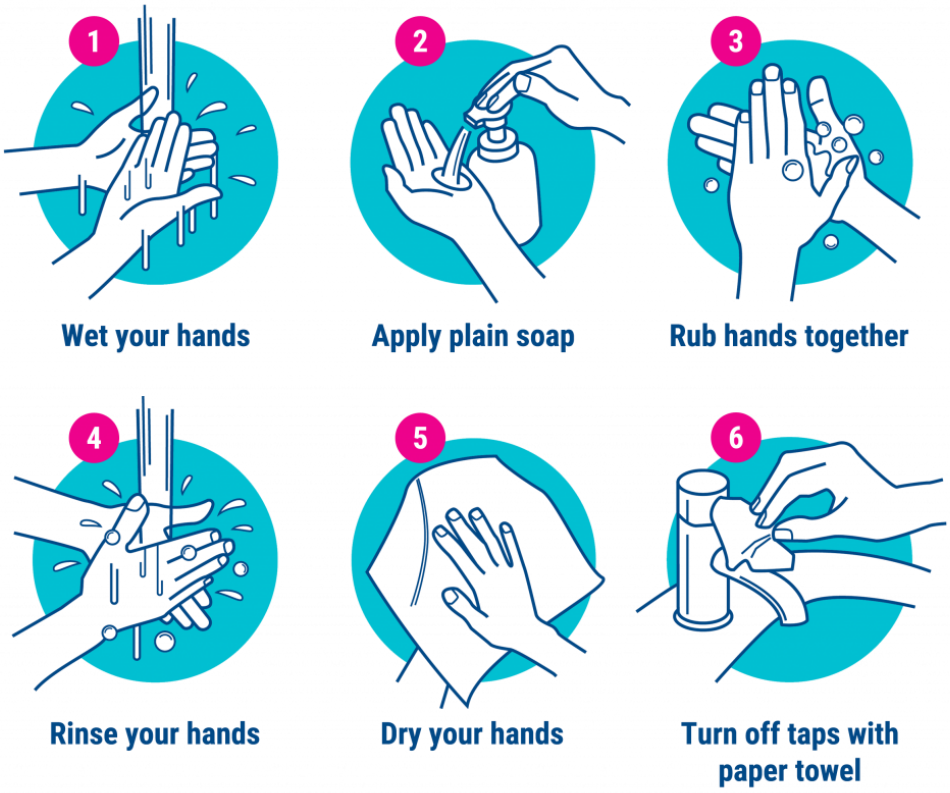
https://www.youtube.com/watch?v=_d3SdkdBO7s

"How Germs Spread" (2 mins 4 seconds)

https://www.youtube.com/watch?v=YBGsoimPXZg

Handwashing Practice

- **Choose an activity for students to do at desks.** See optional activities section for ideas or create your own.
- **While students are working at their desks, take three to four students at a time to the sink to do a handwashing activity**. Dim lights if possible. With students at the sink – put pea-sized amount of Glo Germ lotion on hands and instruct students to rub it in all over their hands (palms, back of hands, between fingers, on thumbs).
- **Show students their hands with UV flashlight to see glow**. Discuss that this is like fake germs on their hands.
- **One at a time, students wash and dry hands using six steps learned**. Give prompts to help students remember the steps.
- **Show students their hands under UV flashlight.** See that most of the areas that glowed are gone – the pretend germs were washed away. Notice any areas that are still glowing and that need more attention with future handwashing.
- **If agreeable, put "Handwashing Hero" sticker** on student's shirt to show they have completed the handwashing lesson.
- **Once all students have washed their hands, have them return to their desks.** As a group, review six handwashing steps by pretending to wash hands while seated at desk.



Summary

Review the main points from the session with the students:

- Bacteria and viruses are different.
- Antibiotics only work against bacteria; antibiotics do not work against viruses.
- Handwashing is the best way to prevent the spread of bacteria and viruses.

Thank the students for all of their participation and encourage them to teach their families what they learned today.

How are they different?

Bacteria	Viruses