

Lesson Plan

<p>Description</p> <p>In this activity, students will use their reading comprehension skills to identify the correct images to fit into the story. They will learn that germs are present in our environment and may try to use our bodies as a source of shelter and food, and it is our immune system that protects us from these germs. Students will participate in a handwashing demonstration that will show how soap and washing your hands properly gets rid of germs.</p>	<p>Materials</p> <p>Picture story</p> <ul style="list-style-type: none"> • Printed story for each student • Scissors • Glue <p>Handwashing Demonstration</p> <ul style="list-style-type: none"> • Shallow container(s) • Water • Black pepper • Dish soap
<p>Big Ideas</p> <ul style="list-style-type: none"> • Germs are all around us • Germs can get into our bodies and make us sick when they use our bodies as a shelter and source of food • Our immune system protects us from germs and keeps us healthy • Washing your hands properly with soap and water helps to get rid of germs on them and prevents sickness 	<p>Specific Expectations</p> <p><u>Science Curriculum</u></p> <p>Grade 1-3: A3.2 Investigate how science and technology can be used with other subject areas to address real-world problems</p> <p>Grade 1: B2.1 Demonstrate an understanding of the natural environment as a place where living and non-living things are interconnected</p> <p>B2.6 Describe ways in which living things provide for the needs of other living things</p> <p>Other grades: There are no specific curriculum links to this activity, but it is an easy way to introduce students to the basics of the immune system, germs and how handwashing helps to prevent us from getting sick.</p>

Language Curriculum

Grade 1-2

3.2 Predict the meaning of and solve unfamiliar words using different types of cues.

Introduction

Germs are tiny, microscopic things that cause disease. Germs are present all around us in our environment. Some tiny, microscopic things are not harmful; some may even benefit us. However, germs can cause us to become sick if they infect us. These disease-causing germs use our bodies as a place to live, reproduce and get nutrients.

Our skin is the first line of defence against dangerous germs, keeping them outside our body. Germs can get into our body through cuts in our skin or other openings like our eyes, nose and mouth. Many germs get on our hands and washing your hands before you eat is important because those germs can transfer from your hands into your mouth. If they get in your body, they can make you sick.

If germs get inside of the body, it is our immune system that fights off the infection.

Soap helps to mechanically remove germs from your hands. Soap molecules have two different ends: one attracts water, and one repels water. The end that repels water sticks to the germs, and the end that attracts water sticks to the water molecules. Therefore, soap can act like little crowbars to pry off the tough germs and carry them down the drain with the water. This happens because the germs stick to the soap more strongly than they stick to your hands. Soap and water do a better job of removing germs than water alone.

Action

Picture story

1. Print a copy of the picture story for each student and hand out the story.
2. Explain that this story is about how germs are all around us in our environment and how germs use our bodies as a source of shelter/food. You may also want to explain that some microorganisms make us sick, but most are harmless to us.
3. Tell students they need to read the story and fill in the blank spaces using the images and word bank in the kit.

Handwashing demonstration

1. If students are doing the demonstration themselves, separate the class into small groups. If the teacher is doing the demonstration, have the class gather around.
2. Fill a shallow container with water.



3. Sprinkle a good amount of the pepper onto the water's surface and explain that this pepper represents the germs on our hands.
4. Drip a few drops of dish soap into the water. The pepper particles will quickly repel, demonstrating how soap is able to repel the germs. Note how the water did not repel the germs.
5. Finish the demonstration by discussing the importance of handwashing with soap.

Please help us collect feedback by filling out this quick survey with your class following the activity. <https://survey.alchemer.com/s3/7094497/IPF-Teacher-Student-Evaluation>

Consolidation/Extension

If you wish to take this activity further, you can have students make predications for what they think will happen to the “germs” (pepper) during the experiment with water and then with soap. This may be a good opportunity to introduce some principles of the scientific method.

Accommodations/Modifications

Students may complete the picture story as a class. Read the story aloud to the class and have them vote or raise their hand to decide which picture fits best into the different blanks.

The handwashing demonstration may be done in small groups by the students or as a class by the teacher.

Assessment

The assessment for this activity is based on participation and completion of the picture story.

Additional Resources

Hand washing demonstration adapted from https://www.youtube.com/watch?v=_KirHm_sYfI

How to wash your hands properly <https://kidshealth.org/en/parents/hand-washing.html>

Feedback survey <https://survey.alchemer.com/s3/7094497/IPF-Teacher-Student-Evaluation>