



## Wizards of Wright

### Lesson: Clean Hands

<p><b>Background Info for Wizards:</b></p>	<p>Viruses are tiny, but powerful. We have learned over the last few years just how dangerous they can be. Luckily, we do have ways to protect ourselves. For example: washing our hands, wearing a mask when we are sick, and maintaining good social distancing.</p> <p>In this lesson, students will learn how fast viruses spread and the importance of handwashing.</p> <p>Before beginning the lesson, make sure the teacher is aware that students will come in contact with Glo Germ gel and hand sanitizer. Explain that students will have the choice to not participate. Make sure the teacher is not aware of any student that shouldn't participate because of health/skin sensitivity/allergy issues.</p>
<p><b>Materials:</b></p>	<p>1 microscope</p> <p>Vampire pages</p> <p>1 pie tin          1 empty jug for water          1 container of pepper flakes          1 bottle of dish soap          1 small bowl</p> <p>1 bottle of Glo Germ Gel          1 bottle of hand sanitizer          1 roll of paper towels          1 black Light flashlight          6 extra AA batteries</p>
<p><b>Lesson Time:</b>  <b>70-80 minutes</b></p>	<p>Introduction: 5-10 minutes          Guided Lesson: 5-10 minutes          Student Activity #1: 20 minutes          Wizard Demonstration #1: 10 minutes          Wizard Demonstration #2: 5 minutes          Student Activity #2: 20 minutes          Conclusion: 5 minutes</p>



<p><b>Learning Targets:</b></p>	<p>Students will gain a general understanding of what a virus is.</p> <p>Students will learn how to protect themselves from viruses.</p> <p>Students will learn the importance of keeping their hands clean to prevent the spread of viruses.</p>
<p><b>Introduction for Students:</b> 5-10 minutes</p>	<p><b>Say to the students:</b> Today we are going to talk about viruses and what you can do to protect yourself and everyone around you from viruses.</p> <p>Lately, you have probably heard the word virus a lot. What do you know about viruses? (Call on a few students.)</p> <p><b>Say to the students:</b> A Virus is a type of germ. They're very tiny, and when they get inside your body, they can make you sick. Viruses cause things like colds, chicken pox, measles, the flu, and other diseases. Unfortunately, antibiotics (a kind of medicine) don't work on viruses like they do on bacteria. So, we must do our part to make sure we don't spread viruses around.</p> <p><b>Say to the students:</b> There are special scientists called Epidemiologists, and their job is to find vaccines to fight viruses.</p> <p><b>Ask students:</b> Can anyone tell me what a vaccine is? (Call on a few students.)</p> <ul style="list-style-type: none"><li>- A vaccine is a type of medicine that doesn't make you better. Instead, it keeps you from getting sick in the first place. It does this by teaching your body to fight off germs like viruses and bacteria.</li><li>- Vaccines are like putting on a seatbelt when you get in the car. The seatbelt keeps you safe if you should get in an accident, and by putting it on no matter what, you will always be prepared for the worst. Vaccines help your body be prepared for the disease if you come in contact with it.</li></ul>
<p><b>Guided Lesson #1:</b> 5-10 minutes</p>	<p>Some types of viruses include: the Influenza virus, the common cold virus, Chicken Pox, and yes, even the Corona virus.</p> <p>Bring out a microscope.</p> <p><b>Ask students:</b> Does anyone know what this is? Can anyone tell me what it does? (Call on a few students.)</p> <ul style="list-style-type: none"><li>- A microscope is a tool that scientists use to make very tiny things look large so they can study them.</li></ul>



	<p>Viruses are very tiny, and we can't see them unless we use a microscope.</p> <p><b>Ask students:</b> Would anyone like to see what a virus looks like under a microscope? Walk around showing the students pictures of the viruses. Continue to remind them that these are photographs taken of the virus under a microscope, and that none of these viruses are this big. (You may want to put a small dot on the board and tell the students that even that dot is bigger than a virus.)</p> <p><b>Say to the students:</b> Viruses can spread through the air when we cough, sneeze, or touch an object that a sick person has touched. But there are ways that we can protect ourselves.</p> <p><b>Ask students:</b> What are some things you should do if you are sick, or if you are around someone that is sick? (Call on a few students.) - Briefly discuss the importance of covering our mouth, coughing or sneezing into our elbow, staying home and getting rest, keeping our hands out of our mouth, nose, and eyes, social distancing, wearing a mask when needed, and of course washing our hands.</p>
<p><b>Student Activity #1:</b> 20 minutes</p>	<p><b>Say to the students:</b> We are going to begin today by making something that will remind you to cough or sneeze into your elbow.</p> <p>Show the students an example of the finished product, and how our vampire does such a good job of coughing or sneezing into his elbow.</p> <p><b>Say to the students:</b> For this activity you will need crayons, scissors, and glue.</p> <p>While students are getting their supplies pass out the <i>When a Vampire Coughs or Sneezes</i> picture.</p> <ol style="list-style-type: none"><li>1. Show students where to cut on the dotted line.</li><li>2. Instruct students to cut out the cape.</li><li>3. Show students how to glue the cape to the vampire.</li><li>4. Students can begin to color in their picture.</li></ol> <p>They may not all be finished coloring when you're ready to go on. Ask students to set it aside to finish later. Check in with the teacher about where they may want students to put their vampires.</p>



**Wizard Demonstration #1:**  
10 minutes

**Ask students:** Do you remember when I asked you earlier to list off some things, we can do to not spread viruses and germs?  
One of your answers was washing our hands. That's a great answer!

**Say to the students:** Now that we have learned why it is important to wash our hands, let's do a fun experiment to learn about the power of soap!

**Ask students:** We know that soap washes our hands. Who can tell me some other reasons we use soap?  
- Briefly discuss washing our clothes and dishes.  
- We wash other things too like our dog, and our hair, and even our car. We wash all these things because they become dirty, and soap makes them clean again.

**Say to the students:** I want to show you a demonstration that will include dish soap. It is very important that your dishes are washed before using them again because germs can stay on dishes for a long time. Dish soap is a powerful cleaner. It will actually make oil, dirt, and germs disappear or "run" away.

Set up your experiment and invite students to come stand around you so they can see.

- You'll need a pie tin filled half-way with water and a small bowl with a few drops of dish soap in it.
- Add a generous portion of pepper to the pie tin. Explain that you added pepper to the pie tin of water, and that today we are pretending that the pepper flakes are tiny little germs.
- Put the tip of your finger in the dish soap and then gently touch the water with their finger.

They will notice instantly that the pepper flakes "run" away from the soap.

As they ooohhh and aaaahhh remind them that soap gets rid of germs and that it is important to keep our hands nice and clean to stop the spread of any viruses.

Have students go back to their seats.

**Wizard Demonstration #2:**  
5 minutes

**Say to the students:** Washing your hands is so important that I want to explore that further and do an experiment that shows the importance of washing our hands.



	<p>Show the students the bottle of Glo Germ that you are going to use. Explain that anyone who wants to (give them the choice if they would like to observe instead) will get a drop of this liquid to rub between their hands. Tell them they will rub it in like lotion.</p> <p>The gel has tiny pieces of plastic in it that are pretend germs. Repeat to them, that these are not real, but fake germs that we are using for your experiment.</p> <p>Explain that these fake germs will glow under a special flashlight.</p> <p><b>Show them.</b></p> <p>Put a dime-sized amount of glo germ on your hand and demonstrate rubbing your hands together. Then turn out the lights and shine the black light on your hands to show the students what they will see when they do the activity.</p> <p>Point out to students that you aren't touching things around the room or any of them.</p> <p>Then rub hand sanitizer on your hands, wipe with a paper towel, and use the light again. Show students your new results.</p>
<p><b>Student Activity #2:</b> 20 minutes</p>	<p>Go around the room and put dime-sized amounts of glo germ on each student's hands that chooses to participate. Have them rub their hands together.</p> <p>Ask the teacher to turn out the lights and follow behind you with the black light and shine it on the students' hands. (Enjoy the reactions.)</p> <p>Make your second trip around the room, and this time put a quarter-size amount of hand sanitizer in each student's hand. Again, ask the teacher to follow behind you with the black light and shine it on the students' hands. On their second time under the black light, they will see less "germs" on their hands. (Allow students to use a paper towel as well.)</p> <p>Some students may need more hand sanitizer, or a trip to the sink to use soap and water. Let the teacher make that decision.</p> <p>Time permitting, you may do an extra round of hand sanitizer to see if there are any "germs" left.</p>



	<p><b>Ask students:</b> Who can explain why there were less “germs” on their hands after using hand sanitizer?</p>
<p><b>Conclusion:</b>          5 minutes</p>	<p>Make sure all students are back in their seats.</p> <p><b>Ask students what they remember.</b></p> <p>Can anyone tell me what a virus is?          Can anyone tell me what a vaccine is?          Who can tell me what a microscope does?          Who can tell me one way to keep ourselves from getting sick?          Who can tell me why it’s important to wash our hands?</p>

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