

GERMS ALIVE

ELECTIVE ADVENTURE



SNAPSHOT OF ADVENTURE



In this Adventure, you'll get to explore how to keep your body healthy. Why is it important to wash your hands? Why is the slimy mucus in your nose (yep, snot) important to your health? What happens if you sneeze into the air instead of into the bend in your elbow? How does keeping your room clean help keep you healthy? We will explore all of these questions while we journey through the sticky, sickening world of germs.

REQUIREMENTS

1. Wash your hands with soap and water while singing the "Happy Birthday" song two times.
2. Play Germ Magnet with your den or your family. Wash your hands afterward.
3. Conduct the sneeze demonstration.
4. Conduct the mucus demonstration.
5. Grow a mold culture. Show what formed at a den or pack meeting.



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REQUIREMENT 1

Wash your hands with soap and water while singing the "Happy Birthday" song two times.



Have you washed your hands today? You probably get asked that question all the time by your teachers, parents, and other adults. So why is everyone all worked up about keeping your hands clean?

Well, it turns out that washing your hands is the best way to keep germs from spreading.

Germs are all around us. They are so tiny, you need a microscope to see them, but plants, animals, and people can still get sick from germs. Four common kinds of germs are bacteria, fungi (FUNG-gahy), viruses, and protozoa (proh-TUH-zoh-uh).

- ▶ Bacteria are tiny germs that live inside and outside your body. The next time you get a sore throat or ear infection, bacteria may be the bad guys.
- ▶ Fungi live in moist, warm places and can cause itchy rashes and mold.
- ▶ Viruses get inside your body, spread quickly, and cause colds, flu, chicken pox, and lots of other illnesses.
- ▶ Protozoa live in water and may cause intestinal diseases.

You can see why you don't want these germs around! If you want to keep them away, the best place to start is with your hands. Hands are germ magnets. When we touch other people, those germs are passed from hand to hand.

You should wash your hands at these times:

- ▶ After you go to the bathroom
- ▶ After you play with a dog, cat, or other animal
- ▶ After you blow your nose or sneeze or cough
- ▶ After you touch garbage
- ▶ Before and after you help prepare food
- ▶ Before you set the table
- ▶ Before you eat
- ▶ Before you put away clean dishes
- ▶ Before and after you apply an adhesive bandage on yourself or someone else
- ▶ When your hands have dirt on them

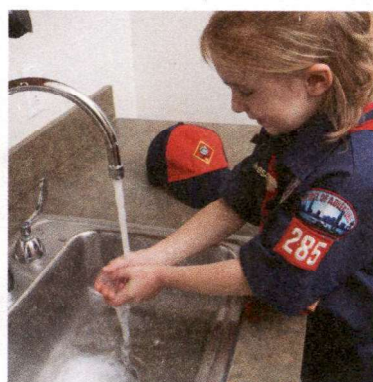
Here's how to get your Wolf paws perfectly clean:



1. Use water to wet your hands.



2. Use soap (any kind is fine).



3. Work the soap into a lather on both sides of your hands. Remember to wash your wrists, between your fingers, and around your fingernails, where many germs hide.

4. Wash for 10 to 15 seconds while singing the "Happy Birthday" song twice and then rinse off the soap. Don't stop washing your hands until you sing it twice!



Date _____

Adult's Signature _____

REQUIREMENT 2

Play germ magnet with your den or family.
Wash your hands afterward.

Now that you have clean hands, let's find out just how far and how quickly germs spread. Play the Germ Magnet game with your den or family.

GERM MAGNET GAME

Instructions:

1. Wash your hands and form a circle with the group.
2. An adult will put a pinch of bright-colored glitter or rub Glo Germ into one person's hand in the circle. Have that person shake hands with the next person. Do not touch your face or eyes with glitter or Glo Germ on your hands!
3. Pass the handshake around the circle and see how far the "germs" go. If using glitter, you can see how much has been passed on. If you use Glo Germ, a black light will show how many "germs" have been passed on. You can also add a second color to show how different "germs" can build up.
4. Wash your hands after the game. Clean up all of the glitter with a vacuum cleaner or a broom and dustpan. If using Glo Germ, use the black light to check that you have washed it all off.





What did you learn about how germs are passed by hand contact? Did it help you understand why an important part of the Scout Law we live by is "A Scout is clean"? Share with your den leader what you learned while playing the game.



Date

Adult's Signature

REQUIREMENT 3

Conduct the sneeze demonstration.

Sneezes sound funny, but they are actually a powerful tool your body uses to get rid of dust or other things that are irritating your body. Sneezing can also spread germs quickly and powerfully. Because a Scout is courteous, always protect the people around you by sneezing into a tissue or the crook of your elbow. You can conduct a sneeze demonstration to show why you should block a sneeze with your elbow. Because you can't see germs without a microscope, you will use some other items to show what happens when you sneeze.



Materials:

- ▶ Blanket, old sheet, or tarp with circles drawn on it in the form of a bull's-eye. Each "ring" of the bull's-eye should be 12 inches apart.
- ▶ Balloon (check for latex allergies)
- ▶ Paper confetti
- ▶ Piece of paper to roll into a funnel
- ▶ Tape
- ▶ Tape measure

Symbols: The bull's-eye represents the air. The balloon is a sneeze. The confetti represent the germs.



1. Roll the paper to make a funnel.

2. Insert the small end of the funnel into the balloon.



3. Pour a couple of tablespoons of paper confetti into the balloon.

4. Blow up the balloon to its full size and tie it.

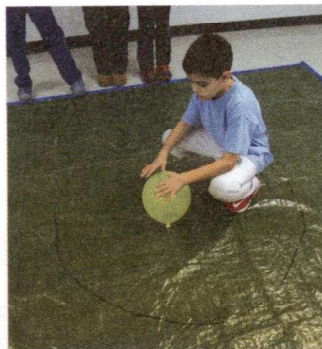


Safety: Pinch the balloon when you stop blowing so you don't get any confetti in your mouth.



5. Place the blanket with the bull's-eye on the ground.

6. Place the balloon in the center ring of the bull's-eye. Guess how far you think the "sneeze" will spread the "germs." Have the other members of the den move several feet away from the balloon.



7. On the count of three, yell, "ACHOO!" and have an adult pop the balloon.

How far did the confetti spread? Measure the distance the "sneeze" traveled with a tape measure. How did you guess compared to the results? How easy or hard would it be to catch a cold or other illness from a single sneeze? Remember to clean up after your demonstration and dispose of the confetti and balloon properly.



Date

Adult's Signature

REQUIREMENT 4

Conduct the mucus demonstration.

Sometimes people call it “snot” or “boogers,” but the proper name is “mucus.” The slimy stuff inside of your nose has an important job to do. Mucus is a filter. Filters catch objects and make sure that they cannot go any farther. Mucus catches tiny things in the air that you breathe in through your nose. These could be germs, dust particles, or pollen from plants. No matter what it is that your nose is breathing in, mucus catches it. This is why you should always use a tissue to blow your nose instead of picking it with your fingers. You are going to make a bag of fake “mucus” and then see how it catches dust. You will also get to see a cool reaction when you mix the ingredients for your fake “mucus” together. A Scout is helpful, obedient, and courteous. Follow your den leader’s or parent’s instructions while doing this demonstration.

FAKE MUCUS RECIPE

Materials:

- ▶ Borax
- ▶ Warm water
- ▶ White school glue
- ▶ Food coloring
- ▶ Two plastic containers
- ▶ Quart-size zippered storage bag
- ▶ Pinch of dirt, flour, glitter, or cocoa
- ▶ Paper plate

Container One

- ▶ 2 tablespoons borax
- ▶ 2 cups warm water

Container Two

- ▶ 2 teaspoons white glue
- ▶ 3 teaspoons warm water



Instructions:

1. Dissolve borax into the warm water in container one.
2. Dissolve glue into the warm water in container two.
3. Add a few drops of yellow or green food coloring to the container of glue, and mix.
4. Add one to two teaspoons of the borax mixture to the glue mixture. Begin stirring and watch as the mixture starts to form into "slime."

After you make your fake mucus, play with it for a few minutes. What does it feel like? How do you think something so slimy could protect your body?

Now put your fake mucus on a paper plate. Place a pinch of dirt, glitter, flour, or cocoa in your hand and gently blow it onto the mucus. Did you notice how it stuck onto the surface? This is how the mucus in your nasal membrane inside your nose filters air as we breathe in. Examine the results and describe what you learned to your parent or legal guardian or den leader.

Don't forget the final step: Wash your hands. This is something we should always do when we handle mucus — fake or real.



_____ Date

_____ Adult's Signature

REQUIREMENT 5

Grow a mold culture. Show what formed at a den or pack meeting.

There are different types of mold, and they can grow on many surfaces. Molds produce and release millions of spores. The spores are small enough to be moved around by air, water, and insects. Some molds also produce toxic agents. Being around mold can make people sneeze or be sick. That is why having a clean home is important to the health of everyone in your family.

With an adult's help, try this mold investigation.

MOLD GROWTH

Materials:

- ▶ Small piece of bread
- ▶ Protective gloves
- ▶ Sandwich bags
- ▶ Banana
- ▶ Paper plates
- ▶ Small piece of cheese



Instructions:

1. Place the peeled banana, cheese, and bread in separate sandwich bags on paper plates.
2. Lightly sprinkle each food with water. Leave a small opening to let some air in.
3. Label the foods with a note that they should not be eaten.
4. Observe the three foods daily.

Which food grew mold the fastest? Write down your findings for a week. If you can, take pictures to share with your den.



Safety: Wear protective gloves to dispose of the food and paper plates after one week. Have an adult help you clean the area and wash your hands with soap and water. Do not smell the food with mold; it may cause you to become sick.

What did you learn? Share your findings with your den. Remember to store food properly to stay healthy.



Date

Adult's Signature