



Covering Coughs & Sneezes: Hand Washing Lesson Plans **Grades 3 - 6 (can be adapted for younger and older groups)**

This lesson has three components: informational section, hands - on activity or homework/classroom work activity.

Objective: Students will learn what germs are, how germs spread when they cough or sneeze, and how students can slow the spread of germs.

Section 1: General Information

- Germs are too small to see
- Bacteria and viruses are germs that can cause disease
- Bacteria and viruses can live for many hours on surfaces like your pencil, keyboard, door knob
- Some examples of diseases caused by viruses are: flu (influenza), hepatitis, colds, chicken pox (varicella). Some examples of diseases caused by bacteria are: strep throat (*Streptococcus pneumoniae*), whooping cough (*Bordetella pertussis*), salmonella
- Bacteria and viruses are primarily spread four ways:
 1. **Respiratory/airborne contact** - germs are spread when a person with an infection in their nose, throat, or chest coughs or sneezes. Germs can sometimes be spread when an infected person breathes within 3 feet of another person. Example: Strep throat, flu
 2. **Direct/close contact** - germs are spread by touch or close contact, such as kissing, talking close to someone's face, or sharing food or drinks. Example: Strep throat
 3. **Fecal - oral/Foodborne** - when feces infected with bacteria or viruses contaminate (or are present on) food or another object commonly placed in the mouth, the germ is ingested and the person ingesting the germ becomes ill. Example: E.coli, Salmonella
 4. **Blood and body fluid contact** - germs are spread this way when a person comes in contact with the blood or body fluid of someone with an infection in their blood or body fluids. Usually the infected blood or body fluid must come in contact with an open cut or wound in order to infect another person. This is the most difficult way to spread disease. Example: Hepatitis B, HIV/AIDS

• You can help prevent germs from spreading via respiratory/airborne ways by correctly covering coughs and sneezes:

- Use a tissue to cover your nose and mouth. Throw the tissue away immediately after use. Wash hands or use hand sanitizer immediately.
- If you don't have a tissue, use your elbow or sleeve to cover coughs and sneezes. (Demonstrate and/or use a poster to show the proper technique.)
- Never cough or sneeze without covering your mouth and nose. Don't use your hand to cover a cough or sneezes - germs from your sneeze get on your hand,

then you touch your classmates pencil, your classmate touches the pencil, then rubs his eye, and now your germs are in his body.

Section 2: “Mister” Sneeze Activity

- 1) Fill a spray bottle with water (use colored water for special effect) and set the nozzle to “mist”.
- 2) Explain to class that the water is like all the germs inside of each of them.
- 3) Pretend to sneeze (don’t cover up sneeze), and as you do spray the water on the children sitting in front of you. Walk around the room and continue to pretend sneeze and cough while spraying water.
- 4) Explain that this activity demonstrates how germs are spread when you don’t cover your cough or sneeze.
- 5) Now, use a tissue to cover up a pretend sneeze/cough. Repeat, using your elbow or upper arm to cover the sneeze/cough.
- 6) Explain that this activity demonstrates how germs are prevented from spreading by using the tissue or your elbow.

From: Hummingbird Educational Resources,
<http://www.hummingbirded.com/personal - hygiene.html>

Section 3: Hands - On Activity

Peel two raw potatoes. Have students cough or sneeze into their hands and then touch one of the potatoes. Then, have students either wash their hands for 20 seconds, or use hand sanitizer. Now, have students cough or sneeze into their elbow, and then touch the second potato. Put both in clear containers and then observe/ record the differences. The potato that was touched by hands that had covered a cough or sneeze is supposed to turn disgusting very quickly.

From: Hummingbird Educational Resources,
<http://www.hummingbirded.com/personal - hygiene.html>

Other Resources

ACTIVITY: Germy Puffs

- 1) Explain that the class will be demonstrating what happens if they don’t cover their coughs/sneezes.
- 2) Sprinkle small amount of baby powder on palm, then pretend to sneeze/cough while blowing the baby powder off your palm.
- 3) Ask students: What happened to the powder? How are germs like the powder?
- 4) Repeat step 2, but cover cough/sneeze with a tissue and then your elbow.
- 5) Ask students: What happened to the powder now? Did this slow the spread of germs?

Adapted from *Science Surprises! Ready - to - Use Experiments & Activities for Young Learners* by Jean R. Feldman, Ph.D

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WEB SITES (geared toward preventing the spread of disease)

<http://www.johnson-county.com/publichealth/infDisease/germFighters.shtml>

www.dettol.co.uk/kids.shtml

www.bam.gov

www.cdc.gov/germstopper/

www.itsasnap.org

www.stock2forflu.com

<http://www.metrokc.gov/health/stopgerms/learn/index.htm>

<http://www.kidshealth.org/kid/>