

***Covering Coughs & Sneezes: Hand Washing Lesson Plans  
Grades 7-12 (can be adapted for younger and older groups)***

**Activities**

***“Mister” Sneeze***

- 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>

***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

©2000 - 2007 Pearson Education, Inc. All Rights Reserved.

***Agar Dishes***

1. Have students identify areas in the classroom (or school) where they think the most germs are found. (Water fountain handles have been shown to have the most germs of any surface in a school - recommend this location to your students.)
2. Using a cotton swab, have students swab these areas and then run the swab across an agar dish.
3. Label each agar dish with the location of the swab.
4. Leave agar dishes in a warm location for a few days. Observe the growth on each plate

5. Have students answer questions such as:

- What kinds of organisms grew in the agar dishes (bacteria, viruses, fungi, fecal matter)?
- How did they get on the surface? (Have students describe the journey of the germ from the surface to its origin. Ex: Virus on Billy's pencil came from Billy's hand, which came from Jane's pen, which came from Jane's hand, which came from Bob's hand, which came from Bob's sneeze that he covered up with his hand.
- How long can the germ live on the surface? (many viruses can live for days on surfaces)
- How can you prevent germs from spreading? (covering coughs and sneezes correctly, hand washing, staying home when sick)

### **Ways to Integrate Disease Spread Into Curriculum**

#### ***Math***

Create story problems using the replication of bacteria and viruses

Example: Billy doesn't cover his sneeze and respiratory droplets from his sneeze land on his desk. The

droplets contain 200 viruses. The viruses divide to form two new viruses every minute.

How many

viruses would be on Billy's desk after 10 minutes?

#### ***Language Arts***

Write a poem about how to stay healthy from colds and flu

Example:

Rhyming - I hate when my germs find you,

So I cover up with a tissue.

Every time I sneeze,

I put my nose to my sleeve.

Haiku - I spread lots of germs

if I don't use a tissue

when I say achoo.

Write a research paper on contagious diseases and the recommendations on disease prevention.

#### ***Science***

Swab classroom surfaces and grow cultures on petri dishes when studying microbes.

Implement cover the cough techniques, hand sanitizer, hand washing, and routine cleaning to see how it effects the growth.

### ***Social Studies/History***

When studying other cultures, talk about different ways of greeting and how these differences can inhibit or welcome the spread of disease. When reviewing historical periods, discuss how disease ran rampant b/c of lack of knowledge of disease prevention.

### ***Art***

Use photos from electron microscopes to explore the beauty of viruses and bacteria. Make a collage of images of bacteria, viruses, pollen and fungi. Explain to students that the images are beautiful but the resulting diseases are not.

### **Websites (on preventing the spread of disease)**

<http://www.bam.gov/> [http://www.toronto.ca/health/sleeve\\_sneeze.htm](http://www.toronto.ca/health/sleeve_sneeze.htm)

<http://www.teenhealth.org/teen/> [www.itsasnap.org](http://www.itsasnap.org)