# FACS: Glogerm and Handwashing Activity (HS)

## Summary

Handwashing is an important way to minimize the spread of disease-causing bacteria. In this activity, students will:

- Learn the importance of proper handwashing
- Practice washing hands for the correct amount of time
- Visualize bacteria

## Materials

• Watch/clock with a second hand or a stop watch • Sink • Paper towels • Soap • Glogerm powder or oil • UV light • Glogerm powder/oil and a portable UV light are available from: GloGerm Company P.O. Box 537 Moab, UT 84532 800-842-6622 http://www.hdd.net/cgi-bin/glogerm/hazel.cgi (kit #1002) \$54.95 + shipping

## **Optional Items**

• http://www.soahec-nm.org/html/handwashing\_poster\_gallery.html

This website has a variety of posters (8  $\frac{1}{2}$  x 11") that you can print and use in class to teach proper handwashing.

## Instructional Procedures

## Step 1

Discuss the following items:

• People claim that it's important to wash your hands after you go to the bathroom, before you eat, after you change a diaper, after you handle garbage, or before and after you take care of someone who is sick or injured. This is because of microbes (tiny living things we cannot see) -- these are the germs that can make us sick.

• Germs are everywhere. Some of them are useful, many of them are neither good or bad, but some can make us sick. Many bacteria get from place to place by hitchhiking on people. They can be found in the folds of skin, in our noses and throats, on our hair, and under our fingernails. We can also pick up bacteria from things we touch. Bacteria can be transferred to food from dirty hands, dirty aprons, utensils, food contact surfaces, and equipment.

• Until the 1860's, people didn't know about germs. People didn't know that cleaning cuts and keeping them covered was a good way to prevent infections. Doctors didn't even wash their hands before operating. Ignaz Semmelweis figured out that washing hands prevented sickness in the 1840's, but didn't have a way to explain why. Joseph Lister was the first surgeon to clean instruments and his hands with antiseptic chemicals that kill germs. Deaths in his hospital fell by two-thirds after he started keeping everything clean.

• Medical workers today wear gloves to protect themselves from germs. Medical workers also wear

masks over their nose and mouth so they don't breathe germs on their patients.

• If your hands look dirty, washing with soap is the best way to get them clean. Soap removes stuff from your hands. Soap also kills most germs. Hand sanitizer is a good alternative when soap is not available. Hand sanitizers use alcohol to kill germs -- the germs are still there, but they're dead. Hand sanitizers don't remove stuff from your hands.

# Step 2

• "Distribute" the Glogerm powder, oil, or liquid to the students.

• You can do this simply by placing a few drops of the simulated germs on the palm of each student's hands and then have them rub their hands together, including the backs of their hands, under the fingernails, etc.

• You can also do this by selecting a few volunteers. Place a quarter-sized squirt of the liquid on the palm of each volunteer's hand. Have the volunteers rub their hands together vigorously 10-20 seconds. Have the volunteers then shake hands with their classmates.

• You can also do this by shaking some Glogerm powder on an object such as a tennis ball and tossing it around to the students.

## Step 3

• View the student's hands under the UV light. If we could see germs and viruses on our hands, this is what they would look like. Be sure to look at their clothes and surrounding surfaces (especially if you tossed the Glogerm ball around).

## Step 4

- Review proper handwashing techniques.
- Use soap and hot water.
- Wash for at least 20 seconds.
- Be sure to get between fingers and under fingernails.
- Dry with a single use towel.
- Have the students wash their hands with soap and water.

## Step 5

• Take another look at each student's hands under the UV light to see how they did. It is important to note that the Glogerm powder/liquid is a teaching aid -- a surface indicator. Glogerm does not come off easily without a surfactant (detergent).

## Step 6

Final questions to discuss:

- How well did the students wash their hands?
- What about around fingernails, rings, and the wrist area?
- How could students improve their handwashing skills?

## Note:

There are a variety of additional lesson plans and lesson extensions available on the internet. (Google -- Glogerm activities)

## Authors

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