

Science Lesson Plan: What are Germs?

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Richland Elementary
Biological Sciences: Germs

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Grade Level: 3rd

Academic Standards: Science and Technology Standard: Biological Sciences-3.3.4-A. Know the similarities and differences of living things. * Identify the processes of living things (e.g. react to the environment).

Objectives:

- Students will be able to explain several ways that germs are transmitted.
- Students will be able to list places in which germs are found.
- Students will be able to list ways in which people can prevent germs from spreading.
- Students will be able to demonstrate the most effective hand washing technique.
- Students will be able to generate a list of when people should wash their hands. (Examples: After using the restroom, after playing with pets, after coughing/sneezing)

Cross-Curricular Integration: Reading, Health

Materials: Each group will need a bottle of hand lotion, a bottle of glitter, several paper towels and a container to catch the extra glitter. Access to warm running water, a few bottles of anti-bacterial soap will be essential for this activity.

New Vocabulary: Germs (Microorganisms), microscopic, healthy, antibiotic, E-Coli, Bacteria, tetanus, septicemia, pneumonia, tonsillitis, impetigo, earaches, strep throat, inoculate, virus, Immunizations, Pathogens

Instructional Procedures:

- **Anticipatory Set:** I will read the book titled; *I Know How We Fight Germs* by Kate Rowan or *Germs Make Me Sick* by Melvin Berger. We will briefly discuss germs and why it is important to keep them from entering our body.
- I will continue our discussion with the aid of the PowerPoint presentation that I created titled, [“What are Germs.”](#)
- **Developmental Activities:** As I present my PowerPoint, I will introduce the new vocabulary. I will also ask questions such as: Where are germs found? How can we stay healthy? When should you wash your hands?
- Reinforce new vocabulary terms.
- Assign students into four groups of four. With the PowerPoint set on the slide that is titled “Each group will need the following materials”, instruct the assigned group leader to gather the necessary materials.

- Students will then put a small amount of lotion on their hands and rub it in.
- Explain to the students that the glitter represents germs, and then go around and sprinkle glitter on their freshly moisturized hands.
- The students will be instructed to try to get the “germs” off of their hands with a paper towel.
- Next, the students will attempt to get the “germs” off of their hands with plain cold water.
- The students will then be asked use warm water and soap to wash the “germs away”
- **Closure:** Ask the questions: What happened when you tried to remove the “germs” with the paper towel? What happened when you tried to remove the “germs” with plain cold water? What happened when you used soap and warm water? Explain to the students that soap and water is the best way to prevent germs from sneaking into our bodies and making us sick.
- Ask Questions such as: Are there germs on your pencil? Do you think we can ever get rid of all germs? What would happen if you used cold water to wash your hands after you used the restroom? Why can't you see germs? What is the best way to keep germs from getting into our bodies?
- Make sure that you stress that antibacterial gel is NOT as effective as washing with soap and warm water.
- Review key terms
- Play Interactive Game on the Internet:
<http://www.metrokc.gov/health/stopgerms/learn/index.htm> (catch the germs)
http://www.dettol.co.uk/topic_germs.shtml (fun activities)
<http://www.amnh.org/nationalcenter/infection> (mystery)

Evaluation/Assessment:

- Orally assess student understanding of the key vocabulary terms throughout the lesson. (Germs, microscopic, healthy, soap etc.)
- Observation of students' participation in the hand washing activity

Extension/Enrichment:

- Students are encouraged to visit these web sites:
<http://kidshealth.org/kid/talk/qa/germs.html>, <http://www.lysol.com>
<http://kidshealth.org/parent/general/sick/germs.html>
<http://www.cdc.gov/ncidod/op/handwashing.htm>
<http://www.lancaster.unl.edu/food/sinkgerms.htm>
<http://www.drgerms.com/characters.html>
<http://www.amnh.org/nationalcenter/infection/>
- Set up a microscope for viewing various slides of germs
- Have children color the handout titled “Germs are not for sharing”

- Have children take home an activity booklet titled “R.B.’s Activity Book” (taken from the Lysol website)
- Have children make up a jingle about hand washing and then tell them to sing the jingle while washing their hands (to make sure they are washing long enough)

Special Needs Adaptations:

- Place the visually impaired student close to the board when discussing important vocabulary.
- Make sure the PowerPoint is printed as a hard copy in large print for the visually/hearing impaired.