

Lesson Three

Microorganisms—Bacteria II

- Standard 5:** Students will understand that microorganisms range from simple to complex, are found almost everywhere, and are both helpful and harmful.
- Objective 2:** Demonstrate the skills needed to plan and conduct an experiment to determine a microorganism's requirements in a specific environment.
- Indicator a:** Formulate a question about microorganisms.
- Indicator b:** Develop a hypothesis for a questions about microorganism based on observations and prior knowledge.
- Indicator c:** Plan and carry out an investigation on microorganism.
- Indicator d:** Display results in an appropriate format (e.g., graphs, tables, diagrams).
- Indicator e:** Prepare a written summary or conclusion to describe the result in terms of the hypothesis for the investigation on microorganism.

Procedure

1. Talk how bacteria can spread from one person to another. (Here are a few.)
 - a. Sneezing
 - b. Coughing
 - c. Touching surfaces (they can live up to three days on surfaces)
 - d. Body contact (bumping, rubbing, slapping, kissing)
 - e. Sharing food with someone.
 - f. Eating out the fridge or a bowl that is for serving.
 - g. Eating unwashed food

2. Talk what a person can do to prevent getting bacteria into their bodies.
 - a. Wash hands often
 - b. Keep hands away from eyes, ears, mouth, and nose.
 - c. Don't eat from something someone else has eaten.
 - d. Everything is clean that you are going to eat (dropped on floor, washed)
 - e. Eat off clean surfaces.
 - f. Clean all dinnerware with hot water and soap.

3. What can you do to prevent spreading diseases?
 - a. Don't go out when you are sick.
 - b. Don't touch other people.
 - c. Wash all your clothes and bed linen thoroughly.
 - d. Wash all your dinnerware with hot water and soap.

4. From the reading “Microbes and Health”, read the background information on how to stay healthy.
5. Do Activity One “How Did I Get Sick?”
6. Do Activity Three “Wash Your Hands”

7. Watch some YouTube clip about bacteria. **View first before you show them.**
 - a. <http://www.youtube.com/watch?v=ICWLF9lccNk>
 - b. <http://www.youtube.com/watch?v=pcXdfofLoj0>
 - c. <http://www.youtube.com/watch?v=UqZFiUWrZaE>
 - d. <http://www.youtube.com/watch?v=7D0eIsuZC3w>