

## Lesson Eleven

### Microorganisms—Mold (Fungi Family)

- Standard 5:** Students will understand that microorganisms range from simple to complex, are found almost everywhere, and are both helpful and harmful.
- Objective 1:** Observe and summarize information about microorganisms.
- Indicator a:** Examine and illustrate size, shape, and structure of organisms found in an environment such as pond water.
- Indicator b:** Compare characteristics common in observed organisms (e.g. color, movement, appendages, shape and infer their function (e.g., green color found in organisms that are producers, appendage help movement).
- Indicator c:** Research and report on a microorganism's requirements (i.e. food, water, air, waste disposal, temperature of environment, reproduction.)
- 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. Read about molds under Fungi from the *Properties and Classification of Microorganisms* document.
2. Discuss mold as you read about it.
3. Have them look at the pictures of mold on the Microorganism Information pages and read other information about mold on those pages.
4. Have them fill out as much as they can on the *Comparing Microorganisms* sheet. You can do this as you go, or you can do it afterwards.
5. Here are some websites to view mold.
  - a. <http://www.youtube.com/watch?v=JsQHWj2RfXg>
  - b. <http://www.youtube.com/watch?v=ZRGqNhnpe8g>
  - c. <http://www.youtube.com/watch?v=TDvOLKMUKCg>

- a. Do Activity Two, “Growing Microorganisms (Mold)” found in *Investigation Two—Microorganism Multiplication*. (Taken from the 2005 State Science Teacher Resource Book, pages 12.2.14).
- b. Follow the directions given for the activity.
- c. Ask questions of what they predict will happen.
- d. Have the students keep a log of what happened to the bread during a two-week period.
- e. Have a discussion of what they learned.

**Important: Once the bread has been put in a Baggie, it is to be sealed shut with a stapler and tape, never to be opened again.**