

Lesson Ten

Microorganisms—Yeast (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 yeast under Fungi from the *Properties and Classification of Microorganisms* document.
2. Read the “Background Information” about yeast from *Investigation Two—Microorganism Multiplication* (Taken from the State Science Teacher Resource Book, page 12.2.11).
3. Discuss yeast at you read about it.
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. Have them look at the pictures of fungi on the Microorganism Information pages and read more information about fungi.
6. Do Activity One, “Growing Yeast” found in *Investigation Two—Microorganism Multiplication*. (Taken from the 2005 State Science Teacher Resource Book, pages 12.2.12)

- a. Have the students answer the questions on page 12.2.12 in their logbooks while doing the experiment
- b. Have the students answer the questions on page 12.2.12 in their logbooks after the experiment.
- c. Have a discussion of what they learned.