

Charting Mold Growth

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Grade Level/Subject: Appropriate for grades 2-6

Oversize: Micro-organisms live, grow and reproduce all around us. They are both detrimental and helpful. This activity is designed to show students that they are all around, and that their population growth can be charted based on food supply.

Objectives(s): Students will be able to:

1. Identify sources of micro-organisms. (air, water, etc.)
2. Show micro-organism growth on an available food supply.
3. Chart micro-organism growth and decline as the food supply runs out.
4. Describe factors that inhibit micro-organism growth. (cold, sunshine, sterilization, etc.)
5. Describe ways that micro-organisms are used successfully.

Resources: Small container or jar, tape, bread, boiling water to sterilize, access to refrigerator, graph paper, yogurt, cheese, yeast bread slices, hand lenses. **Student resources:** pencil or writing utensil.

Activities:

1. Using tape, label a container (jar, small petri-dish, etc.), with the students name. Select some to sterilize with boiling water. Select some to leave as is.
2. Place half a piece of bread in each jar. Seal with tape. Label with variable being tested. Place some outside in the sunshine, place some in the refrigerator, leave some as is.
3. Cut Graph paper circles and tape on bottom of petri dish. Count number of squares visible each day. Numbers should decrease. Observe over several days with hand lens. As food supply runs out, mold will begin to die off itself. Number of visible squares will remain the same, or increase. Have students keep a graph of several days growth. Mark points of increase, stabilization and decrease.
4. Compare class results. Cultures grown in refrigeration and under sunlight will have little growth. Cultures grown under sterilization will have little or no growth. Those left as is will have abundant growth.
5. Bring bread dough, yeast, yogurt, etc. Explain that micro-organism growth has productive side effects. Parent volunteers can help you make yeast bread, or yogurt with the class.

Useful Internet Resources:

The Yuckiest Site on the Internet

<http://www.nj.com/yucky/>