

The Sunshine of Our Lives

Skill: Science

Objectives

Students will:

- observe the changes that result in a pond water micro-ecosystem when the input of energy (sunlight) is halted.

Procedure

- Students may collect pond water for themselves, or a few students may provide water for the entire class.
- Have students examine the water and describe and record its characteristics (clarity, odor, variety of organisms, color, sedimentation, number of organisms, etc.).
- Students should place equal amounts of water in each container. Completely cover one jar with aluminum foil to prevent light from entering the jar. Place the other jar where it will receive plenty of light but not too much direct sunlight. Be sure jars will not be disturbed for several days (about 1 week).
- Have students examine the water samples again after several days and record their observations. Compare both samples to original observations.

Discussion and Evaluation

How were the two samples different from each other?
Which seemed healthier? Which would you rather swim in?
Which was most similar to the pond water at the beginning of the experiment?

Adapted with permission from *Outdoor Education: Issues and Answers*, Oklahoma Department of Education, Nancy Brock, Science Coordinator.

Vocabulary

- Micro-ecosystem
- Energy
- Characteristics
- Clarity
- Organisms
- Sedimentation
- Observation

Materials

For each team:

- 2 large glass containers (about 1 liter) with covers (not airtight)
- Pond water containing a variety of organisms including algae
- Aluminum foil
- Microscope or hand lens (optional)

P.A.S.S.

Grade 4

Science

- Process 1.2, 3.1,3, 4.4, 5.4
- Life 3.1

Grade 5

Science

- Process 1.2, 3.1,3 4.4, 5.4
- Life 2.2

Grade 6

Science

- Process 1.2, 3.1,5, 4.5, 5.1
- Life 4.1
- Earth 5.3

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