

Pond Investigation Lesson Plan

Grades: 5 - 8

Length of Program: 1- ½ - 2 hours

Time of Year: Late spring, summer, fall

Preferred Adult/ Student Ratio: 1/5

Summary:

Through the use of key charts, students will learn to identify organisms they catch out of the pond using dip nets. They will learn about the adaptations and interactions between these amazing organisms and how they depend on the plants and other animals present in the aquatic system. By looking for the presence of these creatures, your class will also be able to gauge the health of the area being studied.

Teacher Preparation:

Review the definition of metamorphosis

Academic Standards Addressed:

Science

F.8.2 Show how organisms have adapted structures to match their functions

F.8.8 Show how organisms both depend on and contribute to the balance of populations or ecosystems

Environmental Education

B2.8.10 Identify the effects of pollution and other environmental changes on plant, animal and human health

Special Instructions:

Please make sure students are dressed appropriately

Materials:

- Aquatic Dip Nets
- Petrie Dishes
- Water tubs
- Aquatic Insect ID Key Charts
- Pond Worksheets
- Pencil and Clipboard

Procedure:

Divide the class into groups of 4 - 5 students per group. Each group should take a dip net, wash tub, and key chart. Demonstrate to the group how they should take their tub down to the water and fill it with about 2 - 3 inches of water. Then, they should take turns scooping pond water and vegetation out of the pond, each time picking through the contents to remove any aquatic life and placing it in their wash tub. After everyone has had a chance to scoop, have them fill out their worksheets based on what they find in the pond. Then, call the groups together asking them to form a circle with the tubs on the inside. Place representative aquatic creatures in the petrie dishes (when appropriate) and pass them around, telling the group about the life history and adaptations of each one.

When finished, have the groups return all the water and aquatic creatures back into the pond and clean out the nets.

Wrap-up:

Review the concept of a food chain with the class. Have them come up with an aquatic food chain that includes some of the plants and animals they saw during the program.