

Monitoring Aquatic Ecosystems Lesson Plan

Grades: 8 - 12

Length of Program: 1 ½ hours

Time of Year: Late spring, summer, fall

Preferred Adult/ Student Ratio: 1/10

Summary:

By testing a series of physical, chemical and biological parameters of the waters of Horicon Marsh, students will learn to appreciate the foundation of life in a wetland, the food chain, and methods for studying these systems.

Teacher Preparation:

None

Academic Standards Addressed:

Environmental Education

B.8.8 Explain interactions among organisms or populations of organisms

B.12.2 Describe the value of ecosystems from a natural and human perspective

C.8.2 Use environmental monitoring techniques to collect data about environmental problems

Special Instructions:

Please make sure students dress appropriately for the outdoors.

Materials:

- Dip nets
- Pans
- Thermometers
- pH paper
- Clipboards
- Pencils
- Handouts
- Sampling Kit

Procedure:

Take the class on a hike into the marsh. Divide the class into small groups, giving each group one of each of the materials. Assist the class with sampling the water quality through testing of temperature, ph, dissolved O₂, etc. and recording their data onto the data sheets. Then have the groups use dip nets to sample for aquatic organisms. They should use the Biotic Index information to assist in filling out the Citizen Monitoring worksheet.

Wrap-up:

Explain how the different organisms found act as indicator species for the health of the wetland. Discuss what the ramifications of water quality are for humans and wildlife alike.