

Great Water



Testing the Waters

FOR THE TEACHER

The Great Lakes hold 1/5th of the world's entire supply of accessible freshwater. With an astounding number of people, animals and plants dependent on this source of freshwater, it is imperative the Lakes and ecosystem are healthy. However, human activity has already drastically altered and in many instances damaged this precious resource. Scientists who are concerned with measuring the quality of the Great Lakes water must take into consideration such factors as temperature, acidity, dissolved solids, particulate matter, dissolved oxygen, hardness and suspended sediment. Each of these factors reveals something about the health and quality of the water.

After students have seen the Great Water PowerPoint presentation, have a class discussion and brainstorm for answers to the following questions: What is water quality? Why is water quality important? To whom/what is it important? How can we determine the quality of water?

Show students a number of water samples. Your samples could include tap water, rainwater, water from a puddle, water with food colouring and water with something smelly like vinegar. After they have had an opportunity to observe these samples ask them to determine which samples they would use for drinking, bathing, swimming, fishing. Record their ideas.

Provide students with copies of Activity 1: Testing the Waters: Types of Water; Properties of Water; and Water Experiments. After they have read the background information they are ready to conduct some experiments on water density and acidity, and then attempt to purify some water. When the work is complete students will enjoy playing the on-line game, **Greatest Lakes**.