

Water Quality Station

This video is going to help guide you through the process of hosting the **Water Quality Station**.

The objectives of the Water Quality are to:

- Define water quality and gain a basic understanding of how to conduct water quality testing including measuring temperature, turbidity, pH, and dissolved oxygen.
- Define a watershed and learn that all water is interconnected
- Understand that water is affected by many things and when one element of water quality is affected, each other component can be affected as well

2. The bullet list / steps

- When the students arrive, introduce yourself and the other station members by giving your name, career, and agency
- Ask students to define a watershed and prompt them to consider how and why water quality might be measured
- State the goals and objectives of the Water Quality station

You may divide students into 2 groups if you wish. In this case each group will participate in the two stations described below.

Station One: Enviroscape

1. Ask students to determine the watershed they are currently studying by looking up at the ridge tops.
 - Prompt students to understand how all water is connected. From those ridge tops to ground water flowing under the ground. Do students know where their drinking water comes from?
 - Discuss how human activities on the earth surface affect water quality
2. Enviro-Scape – Make this as hands-on and interactive as possible.
 - Have the students look at the model and describe what they see, what is represented on the model – like the golf course, farming, industrial use, residential area, etc.
 - Students simulate above ground contamination by dropping fertilizer, pesticide, waste, oils, and sediment in appropriate locations
 - ask for the definitions of and identify point source pollution and non-point source pollution on the model
 - Finish with the model by making it rain and talking about what happened and what could have been done differently to protect the quality of the river and lake.

Station two: Water Quality testing

1. Before each test, have the students predict what they think the result will be.
2. Test and record each of the following:

Temperature

Turbidity

pH

Dissolved Oxygen

3. During and after each test, discuss why the test is important, what it measures and how it helps determine the quality of water. Each test uses a different piece of equipment. Each is independent, but also connected. Try to get students to understand how and why this is the case.

In conclusion, summarize the lessons learned at the Water Quality Station:

The Watershed is our water lifeline. Plants, animals and humans need and share it. All water is interconnected, so what we do above ground affects what happens below ground. Being mindful of our daily activities can help to ensure water will be available and useable for all who need it.