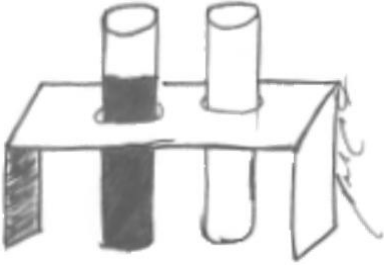


Resource Specialist

Equipment and Procedure Guide



1. **Review *Tips and Tricks for Resource Specialists*** PDF document.
2. **Explore the *What's In That H₂O (Quality)* materials in the “Teachers” section** to become familiar with the pre-work. You will then have an idea of what the student knows. Always praise the classroom teacher for prepared students!
3. **Checklist of equipment necessary for this station:**
 - Clear vials containing different turbidity standards (0, 5, 20)
 - pH kit
 - Dissolved oxygen kit
 - Thermometer
 - Student field worksheets (Teachers have been asked to provide these; you might have extra worksheets just in case)

4. **Procedure:**

Conduct water chemistry testing as a group. Ask students about the river's water quality and to predict dissolved oxygen (DO), temperature, pH, and turbidity levels of the stream. What organisms can tolerate that quality? Where does your drinking water come from? Have students gather samples for data on:

- Dissolved oxygen and temperature
- pH and turbidity

Use the student worksheets for data results.

Let students go for it!

In student directed learning, you are not the informer, but rather the guide. Be there to answer questions and help if students need it. Once each test is complete, or while they are waiting, ask them to answer questions on the worksheet.

- Watch for teachable moments connecting visible wildlife and riparian vegetation with the data results and discussing land use practices affecting water quality.
- Take the time for students to report findings. Ask if the original predictions proved correct. What are mitigations for poor water quality? Mention that the time and season could influence test results. Go over answers to the questions and relate your experiences in the field of water quality. Discuss their results, especially as they relate to fish and wildlife. Brainstorm the components of a watershed. What are its boundaries? How does geomorphology influence the watershed?