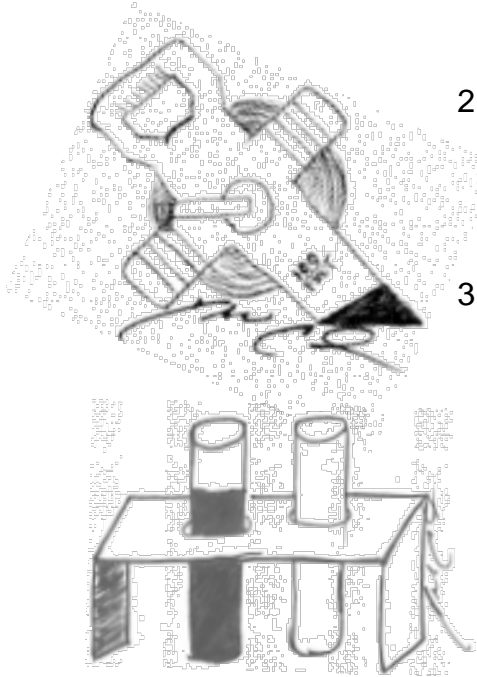


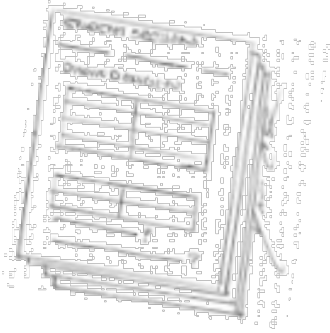
# Resource Specialist Section



1. Review *Tips and Tricks for Resource Specialists* in the Appendix.
2. Read the entire *What's In That H<sub>2</sub>O –Quantity* 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:
  - One 100 ft./meter measuring tape
  - 8 ft. measuring stick for depth
  - Stopwatch and three oranges for flow measurements
  - An easel or white erasable board and marking pens to work calculations with students
  - Student field worksheets (see student section) provided by the teacher; you might have extra worksheets copied on write-in-the-rain paper just in case.
  - Waders for yourself and students. (You are only responsible for providing your own.)
4. Directions to students: Keep on waders.

## Procedure

- Ask students to predict the flow.
- Take 1 length, 3 width, and 3 depth measurements of the reach selected.
- Measure the reach three times in different locations in the reach, if time allows, using the worksheet provided in the Student Section.
- Begin at the top of the reach. Float the object (orange, cone, etc.) to the reach's end. Ascertain the velocity and do the calculations to derive flow.
- If possible, compare the data with a flow meter.



*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?

