



## Will Your Water Pass the Test? (Learning Experience #3) Student Procedures



1. In a class discussion predict the quality of the water in a local waterway and local wells. Well water is a reflection of the ground water in your region. Record your predictions in your journal, together with an explanation as to how you reached your prediction.
2. What do you think should be done to check the quality of the water flowing from a wastewater treatment plant or a septic system? Who should be responsible for monitoring the water quality in your town or region? Add the answers to these questions to your journal entry.
3. Your teacher will assign each of you to a project team and review the water quality testing materials and techniques found in the *Water Quality Testing Unit*. If your class does not have the time or materials to complete the tests, you will skip to #8.
4. Your teacher will assign to your group testing of at least one of the local water samples for turbidity, pH, nitrate, phosphate or dissolved oxygen levels. Follow the instructions carefully and record your results in the data table in *What do the Numbers Say?* (Student Sheet #1)
5. Record your team's data on a piece of chart paper (or use a computer to design a digital table or chart) and be prepared to describe to the class the procedure you followed and your results. If more than one team tested for the same variable, compare your results for each of the samples and suggest an explanation for any differences that you see.
6. Your teacher will ask your team to contact an organization that conducts water quality testing in your area on water sources such as the ones that you checked in class. This may be the county, federal or state environmental resources office, the municipal wastewater treatment plant, a citizen's environmental quality organization, a college or university research office, etc. During a class discussion, compare your class data to the real-world data of the organizations and suggest explanations for any significant differences that you notice.
7. In your journal reflect on data similarities and differences between class data and the data provided from the officials who conduct water quality monitoring in your area. How do scientists address significant differences in important data such as water quality?
8. Participate in a class discussion about who should be responsible for cleaning up the water that people in your area use before it is sent downstream. Record your reflection in your journal.

