

The Return of the



Objective 2 – Lesson 1

WATER QUALITY TESTING INFORMATION

BY: R. Berry, S. Mooney, and J. Powe

GRADE LEVEL: Middle Grades

GOAL: Introduce terminology related to water quality testing prior to going to site.

LEARNING OBJECTIVE:

The student will be able to define vocabulary used to do water quality testing.
The student will be able to explain the results of testing as they relate to water testing.

STATE OF OHIO STANDARDS

STANDARD

Scientific Inquiry

BENCHMARK

Explain that there are differing sets of procedures for guiding scientific investigations and procedures are determined by the nature of the investigation, safety considerations and appropriate tools.

PERFORMANCE INDICATORS:

- Explain that there are not fixed procedures for guiding scientific investigations; however the nature of an investigation determines the procedures needed.
- Choose the appropriate tools or instruments and use relevant safety procedures to complete scientific investigations.
- Explain that variables and controls can affect the results of an investigation and that ideally one variable should be tested at a time; however it is not always possible to control all variables.
- Identify simple independent and dependent variables.
- Formulate and identify questions to guide scientific investigations that connect to science concepts and can be answered through scientific investigations.
- Choose the appropriate tools and instruments and use relevant safety procedures to complete scientific investigations.
- Choose the appropriate tools or instruments and use relevant safety procedures to complete scientific investigations.
- Describe the concepts of sample size and control and explain how these affect scientific investigations.

MATERIALS/RESOURCES

- ***NOTE*** If you are using the GREEN Low Cost Water Monitoring Kit, the instruction manual is very useful. Each test is listed. It explains the test, the results, and the implication of the results. There is also a website to get more information regarding the testing.
- www.earthforce.org Go to water testing and then go to each test (e.g., coliform bacteria, dissolved oxygen, pH, phosphate, turbidity, temperature, Biochemical Oxygen Demand)

PROCEDURES:

1. Introduce the terminology for water testing.
2. Using the handout provided or the information from the website listed above, go through each test with the students.
3. Discuss the various results one might obtain from the water sample testing.
4. Go through each test and determine which results are positive for the quality of the water and which results are negative for the quality of the water.

STUDENT PRODUCT: See Handout