

Unit: Water Water Everywhere

High School Earth Science

Teacher: Elizabeth White

Description:

Students will explore the connections of surface water and its components through water quality data sampling. Students will have the opportunity to perform multiple water samplings during the year. Then at the end of the year will work toward making connections between water components, their sources, and their impacts.

Objectives:

- Students will be able to identify the major surface water chemistry and physical factors.
- Students will be able to discuss natural and manmade sources of these factors.
- Students will be able to discuss the impacts of these chemical and physical factors on water quality.
- Students will be able to connect water quality to the biologic factors in the water.

Implementation:

Part 1: Water Sampling - Students will be given multiple opportunities throughout the year to collect and record water quality data from a local stream. Students should keep this data in a neat and organized way.

Part 2: Water Quality - Students will begin to make connections between what they see in the water and where it may be coming from in the local surroundings. Students will analyze this in terms of both natural sources as well as human sources.

Part 3: Quality Impacts - Students will analyze the impacts of their water quality results. Students will also look into impacts of possible contamination instances. Students will focus on the impacts to both human and stream inhabitants.

Evaluation:

In the end, student groups will be responsible for putting together a scientific report. This report should include: description of events, data, graphs, data analysis or discussion, identification of sources of factors, impacts of factors on both humans and stream life, and discussion of historical contamination event.