

# Title: Water Quality Lab

## **Brief Description:**

Students run the chemical analysis on the water samples collected. Samples will either be from marine/estuarine or freshwater sites. Students will then compare result of another group and determine the health and/or contamination of the site.

## **Objectives:**

- \* Students will learn to use a variety of chemical tests for water quality determination.
- \* Students will collaborate with each other to share data and analysis of results.

## **Materials:**

- Chemical analysis test kits.
- Water samples.

## **Procedures:**

- Chose either a fresh water sample or marine/estuarine sample.
- Note the site of collection. Make observations of the sample
  - Color, smell, particulates, etc.
- Create a table and conduct testing on the following parameters:
  - Phosphate
  - Nitrate
  - Dissolved Oxygen
  - Chlorine (freshwater)
  - Alkalinity (marine/estuarine)
- Compare your results with another group.

## **Analysis Questions:**

1. Did you notice any unusually high numbers for your test area? Based on its geographical location, what could be the possible culprits?
2. When you compare the freshwater and marine/estuarine samples what differences and similarities did you notice?
3. What is the Water Quality Index? How do scientists use it to assess the health of aquatic systems?
4. How could this lab be improved? What things could be changed to get a more accurate assessment of water quality?