

# Salinity Protocol (Optional Titration)

## Field Guide

### Task

Measure the salinity of your water sample

### What You Need

- Tide Table for your area
- Latex gloves
- [Hydrosphere Investigation Data Sheet](#)
- Pen or pencil
- Salinity Titration Test Kit

### In the Field

1. Fill out the top portion of your *Hydrosphere Investigation Data Sheet*.
2. In the Salinity section of the *Data Sheet*, record the times of the high tide and low tide that occur before and after your salinity measurement is taken. Also record the place where the times from your Tide Table occur.
3. Put on gloves.
4. Follow the manufacturer's instructions on the kit. To titrate more saline water than 20 parts per thousand (ppt), you may need to refill the titrator with acid. Keep a record of the total amount of acid used (20 ppt + amount used in refilled titrator).
5. Record the salinity in ppt on the *Hydrosphere Investigation Data Work Sheet*.
6. Have two other students repeat Steps 3-6, recording their salinity measurements as Observers 2 and 3.
7. Calculate the average of the three measurements.
8. Each of the three measurements should be within 1 ppt of the average. If one or more of the observations is not within 1 ppt, do the measurement again and calculate a new average. If the measurements are still not within 1 ppt of the new average, talk to your teacher about possible problems.
9. Put all liquids in waste bottles and give to your teacher for proper disposal.