

Water Quality Procedures for Ocean Aquarium Studies

Taking Water Temperature

1. Place thermometer at least 6 inches underwater for 5 minutes.
2. Read temperature underwater (in degrees Celsius).
3. **Record temperature on data sheet.**

Performing Refractometry on a Sample (Salinity)

1. Clean off refractometer lens with distilled water.
2. Completely cover blue lens with distilled water; use screwdriver to set at zero (ppt).
3. Clean out eyedropper with distilled water.
4. Collect sample in eyedropper.
5. Place 3 or 4 drops of sample on lens so it is completely covered and close the daylight plate.
6. Read salinity through viewer (where white and blue meet) in parts per thousand.
7. **Record salinity on data sheet.**
8. Clean off lens and clean out eyedropper with distilled water.
9. **Clean up work area properly.**

Measuring Salinity Using a Salinity Hydrometer:

http://www.amazon.com/Instant-Ocean-AIOTK504-10_2900-Aquarium-Hydrometer/dp/B00019JOSO

Fill the hydrometer to the top line. The plastic arrow's buoyancy depends on the salinity. Read the outer set of numbers for the salinity measurement. Pour water out in the direction of the side with the bulge (the “belly”)

Measuring Dissolved Oxygen: See Page 28

Determining Biological Oxygen Demand

1. Wrap 2 D.O. bottles with aluminum foil or wrap with opaque tape.
2. Label (tank# and date and time collected) on colored tape on bottles. **BE CAREFUL NOT TO CONFUSE WHICH BOTTLE IS FROM WHICH TANK!**
3. Rinse bottles in sink rather than in tank.
4. Put the bottles in a drawer for days, then proceed as described for dissolved oxygen.
5. Subtract the BOD reading from the D.O. reading.
6. **Record BOD on data sheet.**