

## LAB: Exploring Ocean Chemistry

**Question:** How do physical and chemical properties of water affect ocean chemistry?

**Hypothesis:** (5 pts.)

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**Materials:** (5 pts.) (Make a list of equipment and materials needed for this lab based on the procedures described below.)

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**Procedures:**

**Step 1:** Add 45mL of salt pellets to beaker.

**Step 2:** Add tap water to the beaker until the water level is even with the 200mL mark on your beaker.

**Step 3:** Stir water in beaker until the salt pellets have dissolved; then wait a couple of minutes while the water clears.

**Step 4: Prediction** – Make a prediction based on the density of the golf ball and the water in the beaker. (See table below.)

**Step 5:** Gently place the golf ball in the beaker of water.

**Step 6: Illustration/Notes** – Illustrate and record your observations (See table below.)

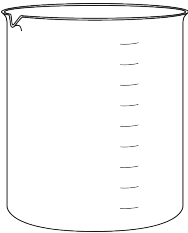
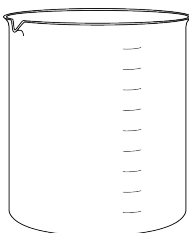
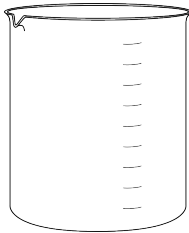
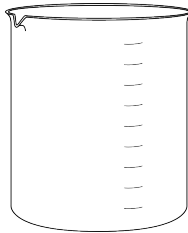
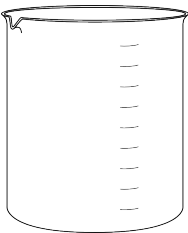
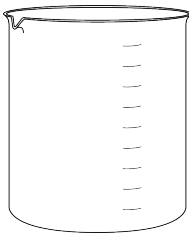
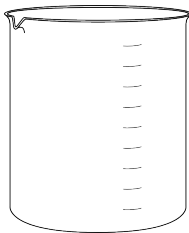
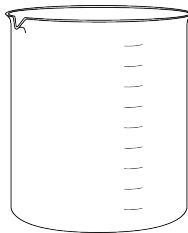
**Step 7: Prediction** – Make a prediction based on the density of the water in the beaker, the golf ball, and adding 50mL of fresh tap water to the beaker. (See table below.)

**Step 8:** Add 50mL of tap water on top of the golf ball inside the beaker **VERY SLOWLY**.

**Step 9: Illustration/Notes** – Record your observations in the data table below.

**Step 10:** Add 1 drop of food coloring and **GENTLY** stir the coloring into the top layer of water. Revise your Step 9 Illustration using a colored pencil to locate the food coloring.

**Data Collection:** (20 pts.) Illustrate and record your observations in the table below:

<b>STEP 4: Prediction</b> (Circle One)	Golf ball will float on the surface	Golf ball will float below the surface	Golf ball will float near the bottom	Golf ball will sink to the bottom
<b>STEP 6: Illustration</b> (Illustrate your observation in the appropriate column)				
<b>STEP 6: Notes</b>				
<b>STEP 7: Prediction</b> (Circle One)	Golf ball will float on the surface	Golf ball will float below the surface	Golf ball will float near the bottom	Golf ball will sink to the bottom
<b>STEP 9: Illustration</b> (Illustrate your observation in the appropriate column)				
<b>STEP 9: Notes</b>				

Miriam Sutton, M.A., NBCT – Owner/Director

