**Investigation 2**

*Explore*

**Materials:**

* Small Graduated Cylinder (to retrieve BTB solution from teacher)
* Bromothymol Blue Solution, using distilled water
* 2 Test Tubes or Baby Food Jars
  + If using Test tubes, need test tube rack
* 1-2 Sprigs Elodea Plant
* Straw
* Masking Tape
* Pen
* Sun Lamp
* Oatmeal Container or Cardboard Box (Dark Environment)

****

**Procedure**

1. Using your graduated cylinder, retrieve BTB solution from your teacher and return to your lab station. Blow into the BTB solution using a straw until the solution turns yellow (Check for Understanding: Once it turns yellow, what does this mean is in the water?)
2. Using your test tubes/baby jars, retrieve 2 sprigs of Elodea plant of approximately the same size and place one in each of your test tubes/baby jars. Return to your lab station.
3. Fill your test tubes/baby jars with BTB solution until the elodea sprigs are submerged.
4. Label one test tube/baby jar with your group’s name, period, and “Dark”.
5. Label one test tube/baby jar with your group’s name, period, and “Light”.
6. If using test tubes, place both test tubes into the test tube rack.
7. Record observations, including labeled and colored sketches, in your student guide.
8. Based on prior knowledge and what you learned in Investigation 1, make a prediction about what each lab set-up will look like in 24 hours. Record in your student guide.
9. Place the test tube/baby jar labeled “Dark” underneath the cardboard box/oatmeal container.
10. Place the test tube/baby jar labeled “Light” underneath the sun lamp.
11. Leave for 24 hours and then observe. Record results in student guide.