

## Elodea Lab

This lab is designed to show how photosynthesis takes place in the aquatic plant Elodea. Because the leaves of Elodea are only a few cells thick, they will be easy to observe under the microscope to look at cells and cell parts.

### Materials:

Sprig of Elodea

Distilled Water w /Baking Soda

Test Tube or clear glass

Timer or Watch

60 watt Spotlight

### Procedure:

1. Fill test tube with distilled water. Add 0.5 g. of baking soda.
2. Cut the end of the sprig of Elodea. *Gently* crush the freshly cut end.
3. Place the Elodea in the glass or test tube. Be sure the freshly cut end of the Elodea is toward the top of the tube or cylinder.
4. With the light off, observe the freshly cut end of Elodea. Count the number of oxygen bubbles that are released in a minute. Record for each minute for 10 minutes.
5. Now place the Elodea in front of the light and turn it on. Wait a few minutes. Over the next ten minutes count the number of bubbles that are released each minute. Record the results.

### Analysis:

1. Is photosynthesis taking place in Elodea? Use evidence from your investigation to support your answer.
2. How and what was measured to see if photosynthesis is taking place?
3. How did the results vary from the elodea when it was placed in the light?
4. Why was an aquatic plant used for this experiment instead of a terrestrial plant?
5. Based on this experiment, which marine producer is Elodea most similar to? Why?