



OBSERVING THE PHOTOSYNTHESIS PROCESS

WITH AQUATIC PLANTS AND LIGHT

GOAL: To observe how aquatic plants use light to carry out photosynthesis and release oxygen.

BACKGROUND

Photosynthesis is the process plants use to make their own food. They use light energy from the sun, water, and carbon dioxide to make glucose (food) and release oxygen. In aquatic plants, the oxygen is released as tiny bubbles that we can see.

MATERIALS

- 1 aquatic plant (Elodea, Anacharis, or Hornwort)
- Clear glass or transparent jar
- Water (dechlorinated if possible)
- Bright light source (sunlight or lamp)
- Dark box or opaque cover
- Timer or clock
- Observation sheet (this page)
- (Optional) Thermometer



EXPERIMENT SETUP

1. Fill the clear glass or jar with water.
2. Place the aquatic plant in the water.
3. Put the glass in a bright light source (sunlight or lamp).
4. Start the timer and observe for 15–30 minutes.
5. Record your observations.
6. Repeat the experiment by placing the plant in the dark (cover the glass with the dark box or opaque cover) for 15–30 minutes. Record your observations.

HYPOTHESIS

What do you think will happen to the aquatic plant when it is placed in light?

OBSERVATIONS

CONDITION	WHAT DO YOU SEE? (Describe bubbles, plant appearance, etc.)	SKETCH (Draw what you observe)
In Light Time observed: _____		
In Dark Time observed: _____		

ANALYSIS

1. What did you observe when the plant was in the light? _____

2. What did you observe when the plant was in the dark? _____

3. What does this experiment tell you about the role of light in photosynthesis? _____

THINK MORE!



What other factors do you think might affect photosynthesis in aquatic plants?
