TEAM NAME:	**Garden Badger**

TEAM MEMBERS:

Sunflower, Lily, Badger

PART I: Working with Infiltrated Leaf Disks
(Using syringes, leaf disks were infiltrated with different solutions)

EXPERIMENT 1: HOW DOES CARBON DIOXIDE AFFECT PHOTOSYNTHESIS?

Set Up:

Cup 1:	Water and Breath -10 spinach disks
Cup 2:	Water and Baking soda -10 spinach disks
Cup 3:	Water (Control) -10 spinach disks

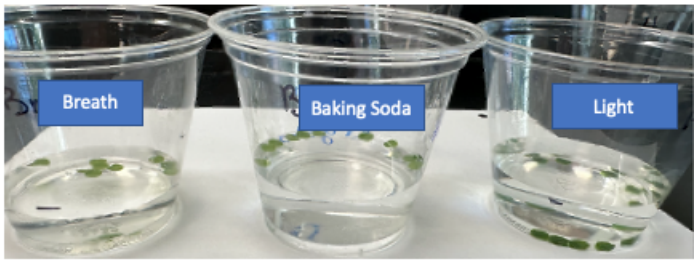
Summary of results:

In the light, all of the breath and baking soda disks rose, and all of the water disks sunk.

Summary of what we learned:

Carbon Dioxide is needed for photosynthesis to take place. When there is no carbon dioxide, like in the control, there are not enough factors to trigger photosynthesis.

Photo:

	Explanation: All cups were under light Note: Light cup is just water The breath cup and the baking soda cup caused all of the disks in them to rise, and the water cup left all the disks in it sunk. The breath and baking soda cups have CO2.

EXPERIMENT 2: HOW DOES LIGHT AND DARK AFFECT PHOTOSYNTHESIS? (leaf disk investigation -- all leaf disks were infiltrated with baking soda solution)

Set Up:

Cup 1:	Light- 10 spinach disks, water with no soap

Cup 2:	Dark- 10 spinach disks, water with no soap

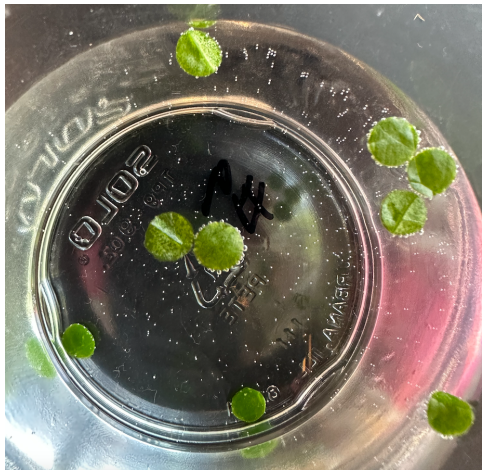
Summary of results:

All of the dark disks stayed at the bottom, all of the light disks floated to the top, and there were some small bubbles in the light.

Summary of what we learned:

Light is needed for photosynthesis to take place, and oxygen is released. The disks in the dark could not rise because there were not enough factors to trigger photosynthesis.

Photos:

	**Explanation: The leaf disks are infiltrated with baking soda, so the leaves are full of carbon dioxide and water.**
	**Explanation: In the light disks, bubbles formed to show that oxygen was being released.**

Part 2: Working with Elodea
Set Up:

Tube 1:	Water with CO_2 and 3 mL Bromthymol Blue, in the light, 1 small elodea part. The water was green, which means there is a lot of CO_2.
Tube 2	Water with CO_2 and 3 mL Bromthymol Blue, in the dark, 1 small elodea part. The water was green, which means there is a lot of CO_2.

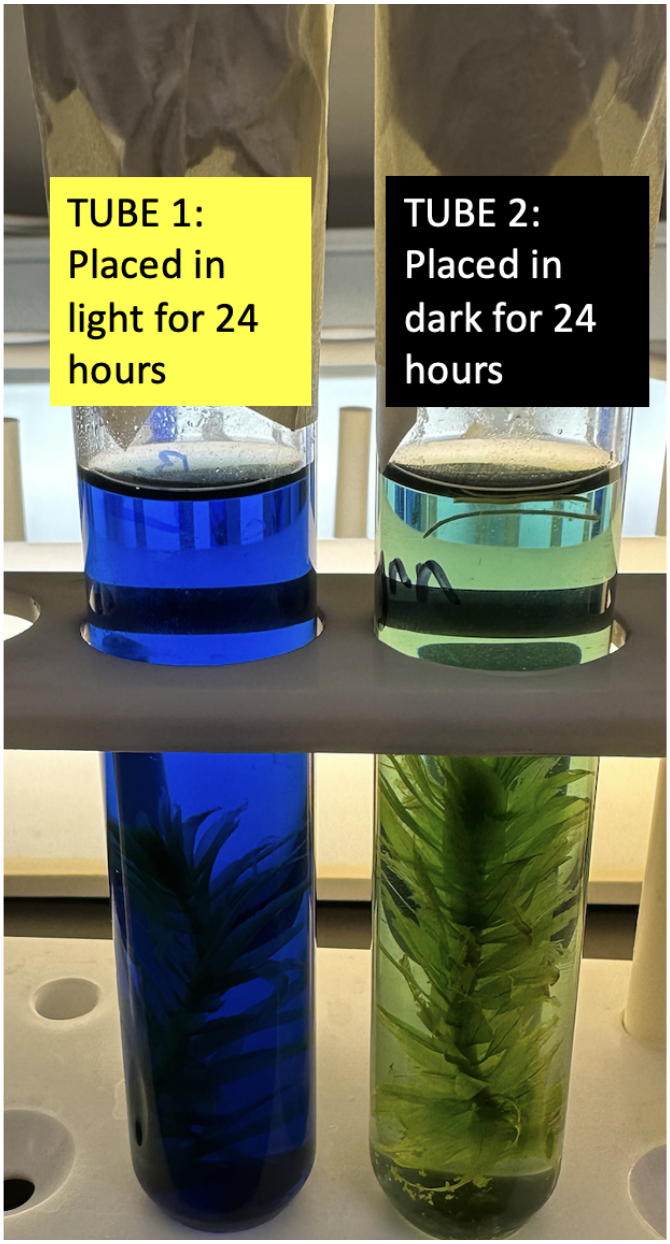
Summary of results:

In the light, the water is blue. The plant takes in the CO_2, so there is little presence of it. That's why it's blue. In the dark, the water should be green. The plant can't take in the CO_2, so there is still a lot of it in the water. However, with our experiment, the dark water turned out to be a bluish-green rather than a yellow-green.

Summary of what we learned:

Carbon dioxide is taken in by the plant when in the light. In the dark, carbon dioxide is released/ not taken by the plant. But why was carbon dioxide taken by the plant even when in the dark in our experiment?

Photo:



Explanation: The solution in the light is blue because there is little carbon dioxide. It has been taken by the elodea. The solution in the dark is green because there is a lot of carbon dioxide. The elodea released CO2.