

# Plant Growth EMPACTS Project

By:

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# General Information

- Plants grow with the process of photosynthesis. What that means is that the plants take in carbon dioxide and water through the air and through this process, that does require sunlight, they expel the oxygen that we need to survive.
- When the plant expels the oxygen into the air it also stores energy within its glucose molecules.

# My project and hypothesis

- I chose to manipulate the PH levels of the plants that we were given to start with. I wanted to see what would happen if I lowered the PH of one of the plants and just let the other one be natural.
- Hypothesis:
  - I think that by lowering the PH in plant A that it will not grow or thrive like plant B
  - I think that neither plant will do better than the other one and they shall remain consistently the same.

# Variables and Constants

- Variables

- I added 1 tablespoon of lemon juice per 2 cups of water
- Amount of sunlight given each day

- Constants

- Amount of water per every 2-3 days
- Environment that they were both kept in

# Measurements

- Each plant started at the same height and color consistency.
- Plant A received the lemon water while plant B was just given water
- Each plant received 4-6 hours of sunlight, weather allowing, and then was moved into my house accordingly.
- Plant A and plant B were steady the same height, color, and thriving equally for the first 2 weeks. After that plant B continued to stay green and full of life, while Plant A's leaves started to turn a yellow green and by week 4 Plant A's leaves were yellow and shriveling, while plant B's leaves were all still a solid green and thriving.

# Summary

- In conclusion what I learned was that if you manipulate the Ph level of a plant in a negative way it will slowly die because it is not receiving the nutrients that it needs. Even through the photosynthesis process it can not overcome the manipulation that I was doing.