

Environmental Influence on Plant Growth Worksheet #1: Brainstorm, Question & Hypothesis

Things to Know

- Genetics and local environmental conditions affect the growth of plants.
- Adaptation by natural selection acting over a generation is one way an organism can change over time.
- You can construct a scientific explanation based on data obtained from your own experiment.

Vocabulary

Plant Variety & Diversity: The number of different kinds of plants is the variety. The number of different kinds of plants in an area determines the diversity. The more variety in each area, the more diverse it is.

Adaptation: An alteration in the structure or function of an organism or any of its parts that results from natural selection by which the organism becomes better fitted to survive and multiply in its environment.

Genetics: The study of how characteristics of living things are transmitted from one generation to the next.

DNA: A molecule inside each cell that contains the instructions an organism needs to develop, reproduce and live.

Heredity: The passing of genetic factors from one generation to the next (parent to offspring).

Environmental Influence: How the environment plays a part in the growth and development of an organism.

Survive: The ability to live.

Extinct: To no longer exist.

Humidity/Temperature Sensor: A device that detects and measures humidity and temperature.

Soil Hydration Sensor: A device that detects and measures the amount of water in the soil.

Ambient Noise Sensor: A device that detects and measures the amount of noise in the area.

Ambient Photo (Light Sensor): A device that detects and measures the amount of light in the area.

Brainstorm

Team Members Names:

1) What do plants need to survive?

2) How can you use the Scimodo sensor/s to design an experiment to test how the environment effects plant growth?

3) What specific environmental factor/s would you like to test and why? (ex. soil moisture, temperature, humidity or light)

4) What is your hypothesis?

5) You will have two plants to use for your experiment. Describe in detail how you would set up your experiment. Which plant is your control and why?

6) What experiments will your class be measuring or monitoring on the Scimodo Platform?

Notes: