

Grow Plants, Grow!

Category

AP

Introduction

Through investigation and observation, students will determine that plants need the right amount of water and sunlight to grow.

Observe how variables, such as water and sunlight, effect plant growth.

Research Question & Hypothesis/Prediction

Research Question: What do plants need in order to survive?

Prediction: We predict that plants will grow the best in pot number one with sunlight, water and soil. We predict that plants will not grow in the pot with only rocks.

Procedures

1 Plant seeds and Number the Flower Pots

Flower Pot #1- Soil & seed

Flower Pot #2- Soil & seed

Flower Pot #3- Soil & seed

Flower Pot #4- Seed (no soil)

2 Put the pots into the following conditions:

Flower Pot #1 (Control Flower Pot)- Give sunlight and water

Flower Pot #2- Give sunlight (no water)

Flower Pot # 3- Give water (no sunlight) Place in a dark space where there is no sunlight, or place it in a paper bag and cover with the other paper bag on top.

Flower Pot #4- Give Water and Sunlight (no soil)

Days 2-14 (Approx.)

Observe each Flower Pot and chart your observations on the anchor chart each day.

Day 15

- Science Talk- Students will be able to describe the things that plants need in order to survive: soil/nutrients, sunlight, air and water.

Procedures

Potting Soil
Flower Pots
Water
Sunlight



Results

Pot #1- no growth

Pot#2- no growth

Pot#3- no growth

Pot#4- no growth

There was no observable plant growth with any of the pots or under any conditions.

Discussion

Questions we asked as plants begin to grow/not grow:

- What do you notice about the flower pots?
 - *Our flower pots are small*
 - *The water soaks through the pots*
- What predictions can you make based on our observations/data?
 - *Pot number 1 will grow*
 - *Other pots will not grow*
- Based on our data, what do you think plants need in order to survive?
 - *We think we know they need all three thing to grow but the pot #1 did not grow at all.*
- Based on our data, what are the best conditions for plants to grow in?
 - *We need better soil for our plants to grow and we also need water and sunlight.*

Conclusion

We concluded that that we need better soil in order for the plants to grow. We decided that the soil was not rich enough to grow because our control plants did not even grow. We want to try this again with a different soil type.

References

[What a plant needs to survive song by Jack Hartmann](#)

Watch- [Plant Parts and Functions for Kids](#)

Read- [From Seed to Plant](#), Plant Adaptations By: Sarah Lalonde, Cactus Hotel By: Brenda Guiberson; [Amazing Plant Powers](#) By: Loreen Leedy & Andrew Schuerger

[How a Seed Grows Read Aloud](#)

[How Does a Seed Become a Plant?](#)

[Generation Genius: Plants need water and light](#)

