CASE

Lab Report Template

Brady and Chase

7.3.3

Problem

How will light effect the germination of a petunia seed?

Hypothesis

Moist and dark conditions will allow for optimal growth.

Materials

Petunia seeds
Plywood box with Plexiglas on one side
Vermiculite growing media
Black construction paper
Tape
Heat mat

Procedures

1. Construct a 12”x6”x12” plywood box with Plexiglas on the front side.
2. Fill the container with moist vermiculite growing media, up to ½” from the top of the box.
3. Place ten seeds, equally spaced against the Plexiglas a ½” from the top of the soil.
4. Place the black construction paper over the Plexiglas on top of five of the petunia seeds.
5. Five seeds should remain exposed to outside light.
6. Keep the soil temperature between 60 and 65 degrees by placing the box on a regulated heat mat.
7. Record visual observations each day.

Data Collection

Create a table with two columns for seeds with light and seeds without. The student should describe the growth and draw for each type of seed daily.

Analysis of Results

Answers will vary.

*Petunias require light to germinate, while other seeds need complete darkness to germinate.

Conclusion

Based on the results, what inferences can you make?

Petunias need light to germinate

Describe how your predictions were proven or disproven.

The seeds in the dark never germinated, while those in the light germinated within 7-10 days

What were possible sources of error?

Moisture, temperature, unviable seeds

What questions arise based on your results?

Why do some seeds need light while others do not for germination?