CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY

Name(s)
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Project Number
J1620

Project Title
Germinating Seeds: In the Light vs. in the Dark

Abstract

Objectives/Goals
My goal was to observe which would grow better, seeds germinated in the light or in the dark.

Methods/Materials
I used four different seeds. Arugula, Sweet Pea, Cantaloupe and Squash. I placed one of each kind of seed in a ziploc bag with a wet paper towel. I prepared two ziploc bags, and placed one of the bags in a sunlit window. I placed the other prepared ziploc bag in a dark closet. I recorded the growth of the seeds for the next 20 days.

Results
Some of the seeds in the dark closet sprouted more quickly, and then died when they had no sunlight. These seeds used all of the endosperm or short-term energy provided and did not have sunlight to begin the process of photosynthesis. The seeds in the window, sprouted a slower rate. However, once the window seeds sprouted they grew faster and had stems and leaves, unlike the seeds in the closet.

Conclusions/Discussion
My hypothosis was proved wrong. I found that the types of seeds I tested need darkness to form a better root system, but that to continue to grow the plant needs sunlight to begin the process of photosynthesis.

Summary Statement
My project is about whether or not seeds would grow without sunlight.

Help Received
My mom helped with typing and my dad helped with the display.