Colorado Science and Engineering Fair

2024 Individual Project Abstract Form

Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.

Title of Project: Growing While it's Snowing

Finalist's Name: Caroline Cookson

School and City: Good Shepherd Catholic School Denver

Sponsor's Name: Annette Humphrey

Category: Plant Sciences (PLNT)

Division: Junior (6th - 8th grades)

Abstract (250 words or less):

This project was about the temperature of grass seeds. I heated one seed, froze one seed, and kept one seed at room temperature. I wanted to see which seed would grow the tallest in 12 days. My hypothesis stated that if I heat one grass seed, freeze one grass seed, and keep one grass seed at room temperature, then the heated seed would grow the tallest, because the oven mimicked the sun's heat. My family has been struggling to keep grass in our backyard alive, so I wanted to do this experiment to help grow grass successfully.

I set up this experiment by putting a bag of seeds in the freezer and putting a pan of seeds in the oven. Once they got to the right temperature, I put 1/8 of a tablespoon of seeds into a pot. There were nine pots, three cold, three warm, and three-room temperature. Twice a day, I watered the plants, measured the heights, and recorded data.

I found that the frozen grass seed grew the tallest, because the frozen seed had an average height of 32.6833334 millimeters, the heated seed had an average height of 25.988667 millimeters, and the seed at room temperature had an average height of 31.663 millimeters.

My hypothesis was not supported because the frozen seed grew taller than the heated seed. I learned that grass could survive in many different climates but thrives in chilly temperatures. This benefits the community, because now people can grow grass taller and healthier.

I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.

Finalist's Signature: Date:

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES o all of these forms to your Regional Fair Director with you Finalist Verification/Permission Form. A signed copy of this form must be included in your notebook.