CALIFORNIA SCIENCE & ENGINEERING FAIR
2019 PROJECT SUMMARY

Name(s)

Matthew Silcott

Project Number

J2024

Project Title

Cold Feet? What Type of Socks Can Keep Your Feet the Warmest in Cold Weather?

Abstract

Objectives

The objective of this project was to determine which sock fabric, Merino Wool, Nylon, Acrylic, Spandex or Cotton worked best for keeping the feet warmest during cold weather.

Methods

The experiment involved wrapping different fabrics around glass jars and pouring hot water at 205 degrees into jars. I would check temperature every 2 minutes using a scientific thermometer. Experiments were done 3 times for each fabric totaling 15 tests.

Results

The results showed that Cotton worked best for keeping in the heat.

Conclusions

This did not support my hypothesis that Merino Wool would be the best. The experiment testing of the sock products for quality and/or effectiveness could be used by anyone who does outside activities in the cold.

Summary Statement

The purpose of my project was to determine which sock fabric keeps feet the warmest in cold weather, a useful research for homeless, hikers, workers and/or climbers.

Help Received

The project was done with the help of my science teacher guiding me through the process of the science fair, my mother for letting me stay up late to write and type all my info and finally my father and step mom for the use of the printer and computer.