

CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

Jarod A. Corey

Project Number

S1604

Project Title

Hand Warmer Performer

Objectives/Goals

Abstract

My objective is to determine if the type of glove affects the temperature of the heat emitted by the Coleman Disposable Hand Warmers. By determining the temperature of heat emitted from the Coleman Disposable Hand Warmers in the different types of gloves, you would be able to determine which type of gloves would be more feasible for the temperature outside.

Methods/Materials

An activated Coleman Disposable Hand Warmer was placed inside six different types of gloves. The Coleman Disposable Hand Warmer was allowed to fully heat up inside each glove. The temperature was recorded at certain intervals inside each glove. Each test/experiment of six different gloves was tested five times. The average temperature of each Coleman Disposable Hand Warmer was determined inside each glove and then graphed.

Results

The Coleman Disposable Hand Warmer emitted the most heat inside the deerskin leather glove with an average heat output of 32.2° C., followed by the goatskin leather glove with an average heat output of 30.0° C. The polyester knit glove came in third with an average heat output of 27.3° C. While the mechanics (synthetic leather and spandex) glove came in fourth with an average heat output of 25.7° C. trailed by the canvas cotton glove with an average heat output of 24.3° C. The Coleman Disposable Hand Warmer emitted the least amount of heat inside the acrylic knit glove with an average heat output of 21.6° C. All of the above-mentioned degrees are +/-2° C.

Conclusions/Discussion

It does appear that the type of glove affects the temperature of the heat emitted from the Coleman Disposable Hand Warmers. I found my hypothesis to be correct, based on my conclusions.

Summary Statement

To determine if the type of glove affects the temperature of the heat emitted by the Coleman Disposable Hand Warmers.

Help Received

My parents helped shake the Coleman Disposable Hand Warmers.