

CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s)

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Project Number

J1518

Project Title

Which Color of Felt Fabric Will Absorb the Most Heat from a Heat Lamp?

Abstract

Objectives/Goals

The objective is to determine which color of felt would absorb the most heat from a heat lamp.

Methods/Materials

The colors of felt used were red, orange, yellow, green, blue, indigo, violet, black and white. An experimental light box was constructed from 6 pieces of wood (1 foot x 1 foot). As a control, the box's interior was painted grey. Each color of fabric was wrapped evenly around a thermometer and placed into the experimental light box for 5 minutes. An average between 3 separate trials was calculated.

Results

The color blue had the highest amount of heat absorbed. The color indigo had the least amount of heat absorbed. The color black absorbed less than indigo. The color white absorbed slightly higher than yellow, which absorbed the least amount of heat.

Conclusions/Discussion

My data does not support my hypothesis. This data suggests that blue, not black felt fabric absorbs the most heat from a heat lamp. The data also seems to be inconclusive, however, suggests that dark colors absorb more heat than light colors.

Summary Statement

My project is an effort to discover if the color black absorbs more heat than other colors.

Help Received

Ms. Regan Rostain helped me understand the experimental process; Father helped build light box.