

CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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Project Number

S1616

Project Title

Heat Absorption in Floring Materials

Abstract

Objectives/Goals

Purpose: The purpose of my project is to determine which type of flooring material (carpet, wood, linoleum, ceramic tiles, or rock flooring) can hold and keep the most amount of heat inside a sun room addition to a house.

Methods/Materials

Procedure:

- 1) Tape two thermometers to the inside top of the sun room model
- 2) Place two thermometers on the bottom of the sun room model
- 3) Place one of the flooring materials inside of the sun room model
- 4) Put the sun room model about one foot away from the sun lamp and turn the sun lamp on
- 5) Leave the sun lamp on for an hour, then turn it off
- 6) At this point, record the temperatures of all four of the thermometers onto a chart
- 7) Wait another hour and then record all of the temperatures again
- 8) Repeat steps 1-7 for each of the different flooring materials at least ten times
- 9) Compare all of your data to find out results

Materials: 1) a model of a sun room addition to a house; 2) four thermometers; 3) sun lamp (or heat lamp); 4) carpet; 5) rocks; 6) linoleum; 7) ceramic tiles; 8) wood.

Results

For my results I found out that the tile held the most amount of heat, then the wood, then the linoleum, then the carpet, then the rocks.

Conclusions/Discussion

The carpet was not the one that held the most amount of heat, therefore my hypothesis was incorrect. The ceramic tiles were the ones that held the most amount of heat. To improve my project there are many things that I would do. First of all, I would test a couple more different types of flooring materials. I would also test each of the flooring materials several more times. Finally, I would test to see what color of flooring material holds the most amount of heat.

Summary Statement

The purpose of my project is to find out which type of floring material can absorb and keep the most amount of heat in a certian period of time.

Help Received

Dad helped use power tools to build model sun room addition