CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY

Name(s)
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Project Number
J1320

Project Title
Insulation Properties of Roofing Materials

Abstract

Objectives/Goals
The objective of the project is to find which roofing material can keep the inside temperature of an enclosed box the most consistent over the course of a day. The roofing materials used in the project are plant matter, wood, tile and asphalt.

Methods/Materials
Four wooden boxes with identical shape and size, but different roofing materials, were assembled. Each box contained its own thermometer, visible through a piece of clear plastic acting as a window. The temperature of the interior box is then recorded over the course of a day.

Results
The results showed that plant matter kept the temperature of the inside of the box the most consistent over the course of the day, then wood, tile, and finally asphalt.

Conclusions/Discussion
The conclusion is that plant matter would keep the inside temperature of a house the most consistent over the course of the day. It did this because of the moisture content in the plant itself and in the soil.

Summary Statement
My project is about finding the roof with the best thermal insulator.

Help Received
My mom and dad paid for my materials and showed me how to use a glue gun. They also used the power tools whenever necesary and gave advice.