CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY

Name(s)
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Project Number
J1526

Project Title
What Is the Effect of Various Window Coverings on the Temperature of the Enclosed Area?

Abstract

Objectives/Goals
The purpose of my project is to discover which of the most commonly used window coverings keeps heat out of a house the best. I believe that a reflective window covering will suceed in keeping out the heat.

Methods/Materials
I used a dual pane window fitted in a frame of plywood. I then insulated the frame with fiberglass insulation and dry walled the inside. I also covered the outside with T111 wood covering. I tested each of the different coverings: mini blinds, window shade, aluminum foil, reflective and non-reflective window films, and tested with no covering for a control. I used two 250-watt heat lamps mounted on a stand to stimulate the sun. I tested each covering three times.

Results
I found out that the aluminum foil did the best at keeping the heat out, although reflective window film consistently was second best at keeping the interior cooler.

Conclusions/Discussion
I concluded that if you can just reflect the light away from your house, the interior of your home would stay cooler.

Summary Statement
The object of my project was to figure out which window covering would keep the most heat out of a house.

Help Received
My father helped my build the house.