



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Lawrence L. Gill, III	Project Number J1510
Project Title Don't Lose Your Cool: A Study of Insulators	
Abstract Objectives/Goals My project's title was "Don't Lose Your Cool - A Study of Insulators". The problem of the experiment was finding which material would be the best insulator. Methods/Materials I had five materials. My control material was wood. The other materials were aluminum, tile, insulation foam, and glass. For my procedures I built the insulation box for testing the materials, then made five material platforms. Next I set up a lightbulb holder and a lightbulb in the source side of the box. I set the platform and material inside the box and slid the receiving box up against the insulator. Next I closed the lid on both sides and plugged in the lightbulb. I then started recording the data and temperatures once the lightbulb was on. I recorded three forty-minute runs, taking temperatures every minute. When the runs were complete I typed all the information into the computer and made the graphs. Results The results from least to greatest went like this: Glass, tile, aluminum, wood, and the insulation foam. There was a significant difference between the glass and the insulation foam. Even between the wood and the foam there was a four-degree difference. Conclusions/Discussion My hypothesis was that the order of materials from worst insulator to best insulator would be glass, aluminum, tile, wood, and the insulation foam. My hypothesis was proven correct for the insulation, but the aluminum was a better insulator than the tile. That is my abstract.	
Summary Statement My project is testing five different materials on insulation ability.	
Help Received My Dad and Grandpa helped me design and build this project.	