



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Aaron J. Maciosek	Project Number J1525
Project Title The Greater Insulator	
Abstract Objectives/Goals My project was to determine which household material would make the best home insulator. Methods/Materials I made two "insulation testers" by putting two identical soup cans into two identical large coffee cans. One "tester" acted as my control. In my other "tester", I filled the space between the soup can and the coffee can with the insulation I was testing. I filled the inner soup cans with water warmed to 60 degrees Celsius and measured the temperature drop of the water every 5 minutes for 40 minutes. I repeated this procedure for each insulation I was testing (styrofoam, polyester fiberfill, cotton balls, shredded newspaper, sand, and sawdust). Results Polyester fiberfill proved to be the best household insulator. Styrofoam, cotton balls, shredded newspaper, and sawdust had average effectiveness. Sand was the worst insulator. Conclusions/Discussion My hypothesis was incorrect in expecting that Styrofoam would be the best insulator. I expected the polyester fiberfill to be the second best insulator, when in fact, the polyester fiberfill turned out to be the best insulator. I was correct in believing that sand would be the worst insulator, since it probably acted as a conductor for heat.	
Summary Statement I wanted to know which household material would make the best home insulator.	
Help Received Home Depot Store of La Quinta supplied sawdust	