



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Jaimie J. Aurelio	Project Number J1204
Project Title Out of the Three Materials, Fiber Glass, Rock Wool, or Insulation Foam, Which Works as the Best Housing Insulator?	
<p style="text-align: center;">Abstract</p> <p>Results</p> <p>On average, the starting temperature for the control box was 146 degrees inside the cup and the end temperature was 96 degrees, giving it a total temperature change of 50 degrees. The starting temperature for the control box outside the cup was 95 degrees. The ending temperature for outside the cup had been 87 degrees, giving it a total temperature change of 7 degrees.</p> <p>On average, the starting temperature for the fiber glass was 143 degrees inside the cup and the end temperature was 99 degrees, giving it a total temperature change of 44 degrees. The starting temperature for the fiber glass outside the cup was 99 degrees. The ending temperature for outside the cup had been 89 degrees, giving it a total temperature change of 10 degrees.</p> <p>On average, the starting temperature for the rock wool was 143 degrees inside the cup and the end temperature was 98 degrees, giving it a total temperature change of 45 degrees. The starting temperature for the rock wool outside the cup was 112 degrees. The ending temperature for outside the cup had been 84 degrees, giving it a total temperature change of 14 degrees.</p> <p>On average, the starting temperature for the insulation foam control box was 140 degrees inside the cup and the end temperature was 91 degrees, giving it a total temperature change of 49 degrees. The starting temperature for the insulation foam outside the cup was 97 degrees. The ending temperature for outside the cup had been 89 degrees, giving it a total temperature change of 8 degrees.</p> <p>Conclusions/Discussion</p> <p>The experiment shows that fiber glass is the most effective material. The research had proven that the material that had the least temperature change would be the most effective housing insulator.</p> <p>Out of all the material, fiber glass had the least temperature change inside the cup of 44 degrees Fahrenheit. Rock wool was next in line with at temperature change of 45 degrees and Insulation foam was last with a total temperature change of 49 degrees Fahrenheit.</p> <p>The reasoning for these results was that since fiber glass is made up of spun glass fibers, it would be the best insulator, since glass is a poor heat conductor. It also has a softer texture that should be better for insulating.</p>	
Summary Statement My project is about taking fiber glass, rock wool, and insulation foam and comparing them to find out which works as the best housing insulator.	
Help Received Mother helped with advice; Father helped with graphs; Uncle donated materials	