



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Max C. Lutton	Project Number J1223
Project Title Is Green Insulation More Effective than Pink in Maintaining Home Temperatures?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to determine if home insulation batts made from natural fibers were as effective in maintaining home temperatures as the standard, manmade fiberglass batts.</p> <p>Methods/Materials Recycled denim or cotton batt, sheep's wool batt, and fiberglass batt were the samples tested. For each sample, a test wall was made with two pieces of glass and clamps, with an insulation batt in between. One side of the 'wall' was heated. Temperatures of the heated side and the opposite side of the wall assembly were recorded at different time intervals. Average temperature differences from the various trials were calculated and compared.</p> <p>Results The greatest average temperature differences were seen with the denim based insulation followed by the fiberglass and then the sheep's wool.</p> <p>Conclusions/Discussion The natural fiber cotton batt was more effective than the manmade fiberglass and the natural fiber sheep's wool at stopping heat transfer. Cotton is a renewable resource and safety wear is not needed when installing it. The cotton batt is a product made from 85% recycled denim.</p>	
Summary Statement This project is about comparing energy efficiency of natural fiber insulations to the widely used manmade fiberglass batt.	
Help Received Mom took me to an interview and construction sites; Coach Souza gave me a timeline.	