



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

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| Name(s) Andrea M. Cerda | Project Number J1505 |
| Project Title Does the Amount of Insulation Affect Inside Temperature? | |
| <p style="text-align: center;">Abstract</p> <p>Objectives/Goals My project was to determine if the amount of insulation you put into a house affects temperature.</p> <p>Methods/Materials Two houses with identical size and shape were constructed. One of the houses was built with no insulation inside. The other was built with one layer of insulation. Each time I was finished with one layer of insulation I added another. I did this three times so that there was a total amount of three layers. In my experiment I put ice inside both houses and a heating pad underneath them both. I put ice inside to represent a cooling system. I also put a heating pad inside both houses and both the houses were around a tray of ice. The heating pad was put inside the houses to represent a heater. Each time I had tested I added a layer of insulation. Then I tested thirty trials for each layer.</p> <p>Results The insulated house had the lowest temperature with a Celsius of 11.11. The highest temperature was with third layered insulated house with a Celsius of 32.6.</p> <p>Conclusions/Discussion In conclusion houses with more insulation, are better for people who like to be cooler in the summer and warmer in the winter. I know this because in my experiment, the more insulation I put inside the houses the cooler or warmer the temperatures got. The more insulation you put the harder it is for the air to escape. Adding more insulation is also useful because it can lower the cost of using the cooler or the heater. Having more insulation will keep a constant temperature, Therefore you do not have to use the cooler of heater for a long period of time.</p> | |
| Summary Statement My project is about the insulation of a house and if the amount of insulation affects inside temperature. | |
| Help Received Dad helped make sure the process of building my houses was safe. | |