



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> <b>Robert C. Schult</b>	<b>Project Number</b> <b>J0232</b>
<b>Project Title</b> <b>Let the Sunshine In</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Many Houses in San Diego have old windows that are very inefficient. There is now other window options. I examined four different configurations of windows to see which one was the most efficient. <b>Methods/Materials</b> I used four boxes made from plywood, each with a different window configuration to test their efficiency. By putting the four boxes corner to corner with the window facing in. This creates a center area where the heat source, a 100-watt light bulb, generates heat. The light source was turned on and left for 22 minutes to heat up the center area to a stabile temperature. The temperatures inside the boxes were measured and recorded. There were 10 trials done. <b>Results</b> The Low emistivity double paned window was the most efficient followed by the Triple Pane. Next was the double pane window and finally the single pane was the least efficient. <b>Conclusions/Discussion</b> My hypothesis was that the triple pane window would be the most efficient, but different results occurred. The Double Paned window with a Low Emistivity coating performed more efficiently than the Triple Pane. Though the Triple Pane had the most panes of glass the Low-E coating on the double pane reflected more of the light that would have other wise heated up the inside of the box.	
<b>Summary Statement</b> The efficiency of different window constructions was examined in my experiment.	
<b>Help Received</b> I thank my Mom for helping me with the backboard and typing the research paper. I thank my Dad for helping with the construction of the window frames and boxes and assisting with the testing. I also thank Milgard Windows for donating the Low-E glass. Last, but not least, I thank Mrs. Gillum for helping me	