



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> Christopher Ruh; Brandon Taylor	<b>Project Number</b> <b>J1820</b>
<b>Project Title</b> Investigating Glass Behavior under Extreme Temperatures	
<b>Abstract</b> <b>Objectives/Goals</b> To determine at what temperature glass is strongest and weakest. <b>Methods/Materials</b> We are using 12X12 double strength (DS) glass sheets, heating glass with heat lamp, cooling glass in snow and control at room temperature. We inserted the glass into a wooden frame to simulate a framed window. We dropped a 5oz lead weight from a 40 degree angle into the framed glass. We are investigating at what time of year glass is strongest and weakest. <b>Results</b> We found that the heated glass shattered easier than the cooled glass. The cooled glass broke in a more uniformed manner. <b>Conclusions/Discussion</b> After completing our investigation, we found that our hypothesis was incorrect. The hot glass cracked and shattered easier and did not have any uniform pattern to it, the cooled glass had more uniformed cracks, they were larger, straighter and cleaner looking.	
<b>Summary Statement</b> How glass reacts to extreme temperatures	
<b>Help Received</b> Friend who works for a glass company, Mr. Matt Imfeld from Anlin Industries	