



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> Adam A. Iverson	<b>Project Number</b> <b>J1521</b>
<b>Project Title</b> <b>Does the Temperature of a Magnet Affect Its Strength?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of this project is to determine if the temperature of a magnet affects its strength. <b>Methods/Materials</b> Ten magnets of equal size and weight were tested under four different temperatures: room temperature, boiling, frozen and using dry ice. Using Lucite tongs, the affected magnets were lowered for approximately two seconds into a plastic bowl filled with 205 standard #1 size paper clips. The tongs were used for my safety, to keep my body temperature from affecting the temperature of the magnets, and to make it easier to hold the magnets in the same position when lowering them into the bowl of paper clips. The number of paper clips attracted by the magnets was counted after each trial. Each magnet was tested ten times, in each temperature. A total of 400 hundred trials were carefully counted, recorded on log sheets, graphed and analyzed for conclusion. <b>Results</b> The results of the testing show that the dry ice appeared to make the magnets attract the most paper clips, followed by the frozen magnets, then the room temperature magnets, and finally the boiled magnets. <b>Conclusions/Discussion</b> After analyzing the results of all 400 trials, I concluded that the temperature of a magnet does affect its strength.	
<b>Summary Statement</b> My project is about testing magnets at four different temperatures to see if their strength is affected.	
<b>Help Received</b> My Father helped me to graph data, my Mother helped me count paper clips and gather materials, and my Science Teacher helped me with project organization and layout.	