



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

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| Name(s) Christian Lopez-Juarez | Project Number J1523 |
| Project Title Magnetic Force | |
| Abstract Objectives/Goals My goal was to find out if temperature affects the strength of a magnet. Methods/Materials My Materials were a plastic bowl, standard #1 paper clips, containers to hold ice and dry ice, small pot for boiling water, thermometer, and 4 magnets. My methods were that first I got the pot and the plastic containers. Second, I put water into the pot, and ice and dry ice into the plastic containers. Next, I put the water to boil and started putting a magnet in each container and pot, i left one magnet in room temperature. After, I got a plastic bowl and put 200 paper clips in it. Then, after 10 minutes had past I took each magnet out from each obstacle and put each magnet in the plastic bowl(full of paper clips)for 2 seconds. Finally, I counted how many paper clips each magnet had for each trial. (4 trials) Results My results were that temperature does affect the strength of a magnet. It seems to be that the magnet in the boiling water was the most affected because it was the one that picked up less paper clips. While the magnet in the dry ice was the one who got the most. Conclusions/Discussion In conclusion, my hypothesis were proven right. Temperature does affect the strength of a magnet. In this experiment, the magnet that was in the boiling water was the most affected magnet out of all. It was the most affected because it got less paper clips than the others. Meanwhile, the magnet in the dry ice was the one who got the most paper clips, and it seems to be the magnet which got affected the least. It seems to me that the hotter the magnet, the less strength it has, while the colder the magnet the more stength it has. | |
| Summary Statement My project is about magnets, and trying to see if temperature affects their strength. | |
| Help Received Mother helped me organize the project. | |