



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Bryce H.C. Luna</b>	<b>Project Number</b> <b>J1615</b>
<b>Project Title</b> <b>How Do Weather Conditions Affect the Generation of Static Charge?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> My project was to determine what affect different weather conditions have on the magnitude of static charge produced by rubbing a comb with various types of cloth.</p> <p><b>Methods/Materials</b> A standard black comb was rubbed with each of four types of cloth (fake fur, polar fleece, cotton, tissue paper) for 20 seconds to produce a static charge on the comb. The magnitude of the charge on the comb was measured by placing it near a 1/8th inch stream of water and measuring the deflection of the water stream with a ruler taped in the sink. The temperature of the room was increased using the built in heater. Running the shower increased the relative humidity of the room. I did each measurement 2 times and under conditions of cool-dry, warm-dry, cool-humid, and warm-humid.</p> <p><b>Results</b> The greatest static charge was produced under dry-cool conditions for all of the cloths used to produce static charge on the comb. The smallest static charge was produced under warm-humid conditions for all cloths except tissue paper.</p> <p><b>Conclusions/Discussion</b> My conclusion is that temperature and humidity both influence the degree of static charge that can be built up on an object.</p>	
<b>Summary Statement</b> My project is about how weather conditions affect the degree of static charge that can be generated on an object.	
<b>Help Received</b> My Mom took and printed the pictures and helped type the report. My Dad helped procure the supplies I needed for this project.	