



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Ryan E. Warriner</b>	<b>Project Number</b> <b>J0225</b>
<b>Project Title</b> <b>Catapult: Variables and Distance</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective is to determine whether or not the weight or size of an object affects the distance it will travel when propelled by a catapult. <b>Methods/Materials</b> A catapult, a ping-pong ball, a marble, and a pebble, goggles, pencil, paper, and a tape measure were used to conduct this project. <b>Results</b> The marble traveled an average of 1730 centimeters, which was an average of 754 centimeters further than the ping-pong ball (1009 centimeters), and 556 centimeters further than the pebble (1207 centimeters). In fact, during all but one of the five trials, the marble consistently traveled further than either the ping-pong ball or the pebble. <b>Conclusions/Discussion</b> The marble clearly traveled the furthest in this experiment. Based on my experiment and findings, I concluded that size and weight do influence the distance an item travels when launched under the exact same conditions as other items.	
<b>Summary Statement</b> The purpose of this project is to determine whether or not size or weight of an object influences the distance traveled when launched from a catapult.	
<b>Help Received</b> Mother helped type report; Local shipper weighed objects; brothers helped launch items and measure distances traveled	