



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Tyler E. Howell</b>	<b>Project Number</b> <b>S0215</b>
<b>Project Title</b> <b>Kinetic Effects</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The goals of this project is to better understand the direct factors that effect a bullets amount of kinetic energy. These factors include mass and velocity. <b>Methods/Materials</b> This project requires a Chronograph to measure the bullets velocity and an assortment of different caliber firearms with varying types of ammunition. The bullet must be weighed so the formula (half mass times velocity squared) can sucessfully calculate the projectiles Kinetic Energy. A steel plate will be fired into to give a visual aid of the bullets force. <b>Results</b> It seems that the faster bullets had more penetrating power and less shear force but the heavy slow moving bullets had the most "punch." In fact when I fired the highest caliber round it went so fast that it did not even move the steel plate. It cut right through it while the slower heavier rounds knocked the plate over <b>Conclusions/Discussion</b> Technically mass is the amount of gravitational pull that the earth has on the object in question. Therefore a heavier bullet requires more energy to drive it forward and the more force it produces	
<b>Summary Statement</b> My project is about comparing the amount of Kinetic energy produced by different projectiles.	
<b>Help Received</b> Supervised by dad and certified NRA saftey rangemaster Ben Whitaker.	