



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>Blake A. Huxell</b>	<b>Project Number</b> <b>J2211</b>
<b>Project Title</b> <b>Light Fight</b>	
<b>Objectives/Goals</b> The objective of my project was to see if four different types of equivalent watt bulbs would give off the same amount of thermal energy.	
<b>Abstract</b>	
<b>Methods/Materials</b> I used a 100 watt incandescent bulb, a 100 watt halogen bulb, a 100 watt mercury bulb, a 100 fluorescent bulb, a copper plate, a ring stand, a thermometer, a light source, wire, and a stopwatch. I set up my experiment by hanging the copper plate from the ring stand. I then faced the light bulb at the copper plate, which heated it up. A thermometer probe behind the copper plate read the temperature, and I recorded it every minute for 15 minutes.	
<b>Results</b> The halogen bulb gave off the most heat, while the fluorescent bulb gave off the least. The average temperature raised by the halogen bulb was 11.7 degrees celsius, while the average temperature raised from the incandescent bulb was 10.1 degrees celsius. Also, the average temperature raised by the mercury bulb was 3.8 degrees celsius. The lowest average temperature raised was by the fluorescent bulb, which was 3.1 degrees celsius.	
<b>Conclusions/Discussion</b> My conclusion is that the halogen bulb gives off the most heat, which is wasted energy. On the other hand, the fluorescent bulb gave off the least heat, making it the most energy efficient bulb. This could help save energy because light bulbs could heat up rooms, causing the air conditioner to turn on. This would waste electricity and money.	
<b>Summary Statement</b> My project is about comparing four different types of 100 watt bulbs to see if they would give off the same amount of thermal energy.	
<b>Help Received</b> Teacher let me borrow some materials and make graphs, brother helped me type things and make graphs, and parents bought materials	