



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Kory Kindle; Kevin Renteria	Project Number S1613
Project Title Light and Brightness	
Objectives/Goals The purpose of this experiment is to determine which light bulb; incandescent, halogen, or fluorescent, provides the most light or brightness with the same amount of wattage.	
Abstract Methods/Materials Step 1: Screw in the light bulb being tested. Step 2: Turn the light on and hold the homemade brightness meter 9 1/2 inches away Step 3: Use the light spectrum tool to measure the wavelength of the light. The Light Spectrum is the portion of the electromagnetic spectrum that can be detected by the human eye. Enables humans to see wavelengths from 400-700nm Step 4: Record the color given off by the light Halogen light bulb 25-watt Fluorescent light bulb 25-watt Incandescent Light Bulb 25 watt Light spectrum Homemade Brightness meter	
Results Within the bulbs and the brightness, each light bulb produced a different color and brightness. The incandescent produced a tannish color causing it to be not very bright. The halogen gave off a white/yellowish color that was fairly descent but still didn't give off that much light. The flourescent light bulb produced a white light which is almost impossible to look at when it is glowing at its fullest brightness.	
Conclusions/Discussion Based on our experiment, we discovered that our hypothesis was incorrect. The fluoescent bulb provides the most light and lasts the longest. It gives off a white light, which is more visible than the yellow and tan light produced by the halogen and incandescent light bulbs. The halogen light bulb, However, its very small and convenient, but is a hassle to use due to many cautions. The fluoescent bulb helps saves energy throughout the environment by generating the most light; it has the greatest life span of a bulb and is shatterproof	
Summary Statement We tested the brightness and color of 3 different kinds of light bulbs with the same amount of watts.	
Help Received No help, all student work	