



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> Cecelia M. Eggleston	<b>Project Number</b> <b>J1808</b>
<b>Project Title</b> <b>The Effect of the Color of Light on Plant Growth</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of my experiment was to investigate the effect of the color of light on plant growth. I chose this because I wanted to find a way to increase plant growth without using fertilizers. <b>Methods/Materials</b> I set up this experiment by using four different colors of light, with white as a control, to test which color would have the greatest effect on the growth of radish seedlings. I put eight plants in a cardboard box with a hole in the top and colored light gels on the light bulbs. The constants were: soil type and quantity, water amount, seed type, duration of light, and container size. <b>Results</b> The major findings were: plant growth rate was highest under blue light at an average of .52 cm per day and lowest under green light at an average of .42 cm per day. Red light had an average of .43 cm per day which did not support my hypothesis. <b>Conclusions/Discussion</b> The plants' growth was the highest under blue light and the plants under green light had the least amount of growth. The hypothesis that plants growth would be greatest under red light and least under green light was partially supported. I did not expect that red light would not have a greater effect on plant growth. I can explain this because at first red light had the greatest height however it grew so fast the stems were weaker and they broke. In the real world this could be useful because it would increase the growth of plants without using fertilizers.	
<b>Summary Statement</b> The purpose of my experiment was to test the effect of the color of light (wavelength) on plant growth.	
<b>Help Received</b> My father helped me use excel for data analysis and purchased materials.	