



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Taran J. Lu	Project Number J1617
Project Title The Effects of Different Amounts of Light Energy on Plant Growth and Development	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals In my project I investigated the effects of different amounts of light energy on plant growth.</p> <p>Methods/Materials My four light treatments were 0 Watts, 4 Watts, 25 Watts, and 100 Watts. Ten Wisconsin Fast Plants were subjected to each different level of light. I measured the number of days the plants lived, how long it took to produce their first flower, and how many flowers they produced over a 28 day period.</p> <p>Results The light treatments produced very different growth among the plants. The dark-grown plants lived an average of 12.6 days and did not produce any flowers. The plants grown under 4 Watts of light lived an average of 15.9 days and did not produce any flowers. All plants grown under 25 Watts of light lived through the 28 days, started producing flowers after an average of 21.9 days, and produced an average of 3.9 flowers per plant. All plants grown under 100 Watts of energy lived through the 28 days, started producing flowers after an average of 24.3 days, and produced an average of 1.7 flowers per plant.</p> <p>Conclusions/Discussion In conclusion I have found that plant growth is altered under different amounts of light. The plants grown 85cm below 0, 4, and 100 Watts of light energy all had a less productive growth pattern than those grown under 25 Watts based on how much of the 28 day period they survived, how quickly they flowered, and how many flowers they produced.</p>	
Summary Statement I studied the effects of different amounts of light energy on plant growth and development as measured by flower production, and number of days lived.	
Help Received Parents helped gather materials for growing plants, proof read my writing, and suggested ways to improve it.	