



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> Maya Griffin; Amanda McNutt	<b>Project Number</b> <b>J1611</b>
<b>Project Title</b> <b>Transpiration</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> We tested whether different light conditions, fluorescent light, fluorescent light with a green filter, and no light affects how far blue colored water rises up celery xylem.</p> <p><b>Methods/Materials</b> We created a green filter by cutting the end of a 16-oz soda bottle and wrapping green wrap around it two times. We then placed nine jars in each of the three light conditions for seven hours. After seven hours, we took data on all twenty-seven jars by using a scalpel to expose the veins. Then we measured, in centimeters, how high the blue water went up the celery xylem.</p> <p><b>Results</b> Our results proved that the nine jars under the fluorescent light transpired the most, the blue water traveling up an average of 25.09cm. The nine jars under the fluorescent light with a green filter had its blue water rise up an average of 13.36cm, almost the same as the nine jars in the cabinet, which rose an average of 13.27cm.</p> <p><b>Conclusions/Discussion</b> We conclude that the amount of light absorbed by the leaves affects how much a plant photosynthesizes and transpires.</p>	
<b>Summary Statement</b> We tested whether different light conditions, fluorescent light, fluorescent light with a green filter, and no light affects how far blue colored water rises up celery xylem.	
<b>Help Received</b> Our science teachers helped us edit and graph our data. Some of our friends helped paste things on the board also.	