



CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

| | |
|---|---------------------------------------|
| Name(s) Autumn K. Peak | Project Number J1516 |
| Project Title Can Colors Inhibit Dangerous Algal Blooms? | |
| Abstract Objectives/Goals The Purpose of my project was to determine if colors can inhibit dangerous algal blooms. In other words which color of light of the primary colors prevents algal growth the most. Methods/Materials The experiment involved growing algae from a local stream in Meadow Vista, CA in 6 ounce glass mason jars with lids. The jars were painted with red, yellow, and blue watercolor stain. There were three of each color and three controls without any paint. The algae was left to grow for 24 days. Then the data was collected. Measurements were made by counting the number of algae per drop of water for three drops of water from each jar then finding their average. Results The results were that on average, blue inhibited algal growth the most and yellow the least. Conclusions/Discussion The experimental data supported my hypothesis, indicating that it should be accepted. I think that I got the results that I did because blue is the darkest color that I used for my experimentation. Therefore, blue lets the least light through. Since algae thrives in light because it depends on it for energy the little light caused it to die off. On the other hand the yellow jar had the highest average amount of algal growth. I think that this was for the same reason that there was the least average algal growth in the blue jar. The yellow was so light that it allowed more light through which provided energy for the algae to thrive. The algal growth also may have been effected by the different wave lengths. Blue was the color with the shortest wave length and had the least average amount of algal growth. The yellow jar had the highest average algal growth and medium wave lengths. Red had an average algal growth only slightly higher than the blue and the longest wave length. | |
| Summary Statement The purpose of my project was to determine, on average, which of the primary colors inhibits algal growth the most. | |
| Help Received Mr. Scott helped edit and printed graphs; dad spray-painted board and helped print paper. | |