



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

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<b>Project Title</b> Do Ocean Fireball Algae Benefit from the Positive Magnetic Field?	
<b>Abstract</b> <b>Objectives/Goals</b> In our home we have successfully used magnets as a household remedy for warts. We have also seen other anecdotal evidence of positive effects coming from magnets. It has not been accepted in the scientific world that a specific pole can be beneficial for forms of life. We thought this idea worth testing. Our objective in this project was to rigorously apply the scientific method to test whether positive magnetic fields can have a beneficial effect on plant life. <b>Methods/Materials</b> A member of the UCSB biology department provided us with large samples of Pyrocystis Fusiformis, a.k.a. Ocean Fireball Algae, which is an excellent test subject for indications of effects on health and vitality. We used vials of algae, magnets, and microscopes. We used control samples and test samples of algae. For supplemental testing, we used bean seeds and plant containers, also with controls. We kept careful logs to record our observations. We took photographs showing results, as well. <b>Results</b> After making timed glow-test observations (length of algae glow upon shaking is an indicator of algae health), and utilizing microscopes to observe the percentage of alive algae per sample, and entering all observations in our log, the quantitative data reflects enhanced vitality of algae exposed to positive magnetic fields. The algae so exposed lived approximately 5% longer than the other samples in the test. <b>Conclusions/Discussion</b> These data suggest that magnetic fields do affect the health of biological systems. Our testing was focussed on the health effects of positive magnetic fields with respect to plant samples. We conclude that magnetic fields should be carefully used in proximity to biological systems, and that positive magnetic fields may be applied to certain plant species for life and vitality enhancement purposes.	
<b>Summary Statement</b> This project provides rigorous scientific testing of the idea that magnetic fields can have a positive effect on biological systems, with interesting results.	
<b>Help Received</b> Mother helped identify mentor, and got some literature on magnets, she also wrote some of the data that I dictated to her.	