



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Dahlton J. Hubbard	Project Number J1715
Project Title It's Not Nice to Fool Mother Nature	
Abstract Objectives/Goals Everything needs to adapt in order to survive. Man is now venturing into space, will he be able to take plants with him? I did my project on whether a plant would be able to adapt to a microgravity environment. In order to test this I designed a grow box with 2 halves. One side contained the control group plants, the other side housed the plants which I suspended upside down. I watered the control group plants as normal & provided a light source as normal. On the side with microgravity I watered the plants from the top (thru the roots) and placed a light source from the bottom. I cared for and monitored all four plants for approximately a year. The results were amazing!	
Methods/Materials Grow 2 plants (control group) normally, 2 plants suspended upside down for a year. Water the suspended plants from the top and place the light source from the bottom. Materials: grow box, peg board, lights, plywood, funnel, fertilizer, threaded rods, nuts, mist bottle, water meter, and plants.	
Results All four plants lived and grew. During their development they had very close to the same number of leaf loss, and the same number of blooms. The plants suspended upside down had a noticeable change in their growth pattern.	
Conclusions/Discussion Plants can adapt to an environment absent of gravity, though the processes brought on by gravity are omitted sending the plants into a state of confusion. The plants responded by growing in a spiral fashion. It was amazing to watch it unfold.	
Summary Statement Growing plants in a microgravity environment to see if they can adapt and survive.	
Help Received Father helped build my grow box and science board, Mother helped select the plants and nagged me often to water and mist my plants.	