



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Anisha Patel	Project Number J1525
Project Title Acid Rain	
Objectives/Goals How does acid rain affect plant growth?	
Abstract Methods/Materials I used a solution of 1% and 2% sulfuric acid as a substitute for acid rain. The rain outside is naturally acidic because the water molecules in the air combine with the carbon dioxide in the atmosphere to form carbonic acid. Acid rain occurs when sulfur dioxide (from smelters and coal burning power plants) and nitrogen dioxide (from automobile exhaust and other combustion processes) react with oxygen in the atmosphere to form sulfuric and nitric acid. To be considered acid rain, the rain must have a pH of 5.0 or lower.	
Results The plant that was given the 1% solution of sulfuric acid actually did a little better than the plant that was given water. It grew a bit taller and had a better physical appearance. The plant that was given water did not die but, just didn't grow as tall. Although the watered plant did not grow tall it produced lots of blossoms after adapting to the environment. The plant that was given the 2% solution died completely three-fourth of the way through the experiment. All that was left was old, burnt, and dry leaves.	
Conclusions/Discussion My hypothesis was partly right and partly wrong. I was correct in the sense that the plant that was to be given 2% solution acid would die. I was wrong because I had hypothesized that the plant that was given the 1% solution would not grow as well as the plant that was given water, but that was not the result. Instead the plant that was given the 1% solution was actually growing better than the plant that was getting water. My results determined that in a real life situation, if anyone were to buy Skippy Yellow plants and plant them in a pot, it is better to put a 1% solution of sulfuric acid than only water. Basically, the plant I selected for this project was acid loving.	
Summary Statement How does acid rain affect plant growth?	
Help Received Science teacher helped with general guidance and materials and my dad helped with the board and pictures.	