



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Jagjot S. Dosanjh	Project Number J2306
Project Title Investigating the Effects of Different Pollutants on Hydroponic Plant Growth	
Abstract Objectives/Goals I wanted to see how different pollutants in the environment will effect the growth of plants. Methods/Materials Collected pollutants (Exhaust, motor oil, fertilizer, soapy water, pesticide) Made a solution with water. 1 tablespoon of pollutant with 1/3 cup of water. Hydroponically grew plants. (radish) 4 cups with different pollutants. 4 seeds per cup 24 cups all together including the control. 96 seeds Recorded germination rate and growth for 2 weeks. Results Germination rates- Control all seeds germinated 4-5 days Exhaust - 50% germination 5-6 days pesticide - 12% germination 7-8 days motor oil, fertilizer, soapy water - 0% germination Growth -Control Average 1.69 inches Exhaust - 1.09 inches Pesticide - .07 inches Conclusions/Discussion Pollutants do have an effect on plant growth. Some effect the plants more than others. Motor oil, fertilizer, and soapy water. the solution rate was most likely too strong. Motor Oil will choke out the plant by blocking stomatas. We need to be aware of how pollutants are getting into our environment.	
Summary Statement My project will determine how pollutants effect plant growth and germination rates	
Help Received Teacher taught scientific method. helped get supplies.	