



CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

Name(s) Kayla M. Stearns	Project Number J1228
Project Title The Air Is Cool at Eureka Schools	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My goal was to determine the amount of outdoor airborne pollutants at ten Eureka schools within a five-mile radius. I wanted to discover which school has the most airborne pollutants because of ongoing vehicle traffic, and if weather conditions make a difference with the amount of pollutants. I also wanted to find out if there are any airborne pollutants that are hazardous.</p> <p>Methods/Materials Four colored sets of 10 3x5 cards were numbered and identified by location. One tsp. of petroleum jelly was spread over the drawn circle on each card. Each card was placed close to the school's main road, remaining there for 48 hours. After the cards were gathered for data they were immediately covered with cling wrap to prevent any loss of pollutants. This procedure was repeated four times over an 8-week period which included various vehicle traffic patterns and different weather conditions.</p> <p>Results The ten schools that were part of my investigation have very little outdoor airborne pollutants. There are no hazardous pollutants within any of the areas surrounding the schools. There is no significant difference among schools that have the most ongoing vehicle traffic than the schools that have the least ongoing vehicle traffic. The various weather conditions did not affect the amount of pollutants.</p> <p>Conclusions/Discussion As I worked on my project I learned the importance of clean air to one's physical health. The school areas where I did my project have little airborne pollutants, so the students are in a healthy, clean air environment. Much scientific research is taking place in air quality technology. There are over 5,000 ambient air quality stations in the United States, including one station in Eureka, that can detect hazardous airborne pollutants. I have an important role to help maintain clean air in my environment. Breathing clean air must not be taken for granted.</p>	
Summary Statement My project was to determine the air quality at ten schools in Eureka.	
Help Received Grandpa drove me back and forth to each school for me to work on my project to obtain information.	