



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

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Project Title Air Quality Comparison: Particles and Ozone	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The goal for our project is to inform and educate others on the quality of air that is around us and the potential hazards in the atmosphere.</p> <p>Methods/Materials Particles: 1. Find locations for experiment to conduct experiment. 2. Measure distance from testing site to the source (major roadway). 3. Create trapper for collecting particles. - 3" by 5" index card - 4 by 7.5cm hole. 4. At location attach tape on one side and stick the trap to the testing site. 5. Return three days later and cover the tape with more tape and put more traps up. 6. Repeat steps 4 - 5 until desired amount of data is obtained. 7. As data is obtained look under a high powered microscope and measure the size of the particles that were collected by the traps. 8. Analyze data and form a conclusion. Ozone: 1. Find locations for testing (high power lines). 2. Obtain correct amount of ozone readers. 3. Place the ozone indicator at the source, 10 meters, and 36 meters away. 4. Retrieve ozone indicator after one hour after put up and come part to the indication card. 5. Repeat steps 3 - 4 until desired number of data is obtained. 6. Analyze data and form a conclusion. Materials: - 3" by 5" index cards (105); - square hole puncher; - clear packing tape; - ozone strips (100); - microscope; - calculator; - meter wheel.</p> <p>Results Particles: At the first location, 100 meters away (luigi) there was on average 41 particles and an average size of .26 millimeters. At the second location, 400 meters away (solosano) there was on average 53 particles and an average size of .34 millimeters. At the third and final location, 1000 meters away (rucker) there was an average of 42 particles and an average .41 millimeters.</p> <p>Conclusions/Discussion Our hypothesis was supported because the farther away the particle traps were from the source the larger the particles were and the ozone would be less occurring the further away it would be from the source. But our data may have been inconclusive because we had some flaws.</p>	
Summary Statement Our project was about us comparing the air quality at different schools in our area and ozone occurrence around high power lines.	
Help Received Our teacher helped overall.	