



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Dylan Z. Redden	Project Number J0922
Project Title What Are Kids Breathing?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Does the distance from a freeway affect the air quality on a school campus in the form of air borne particle pollution? Based on the research I have found, the air quality on the El Tejon School campus will have the most air borne particles in the form of pollution due to its location as it is approximately 500 feet from Interstate 5.</p> <p>Methods/Materials I created a cryanometer to measure the blueness in the sky and used Vaseline covered index cards to collect air particles on five school campuses. Combining the data collected from the air particles and the cyanometer will give a clear indication of which school has the most air pollution on campus in the form of air borne particles.</p> <p>Results The data shows that my hypothesis was correct. The closer the schools were to the freeway, the worse the air quality was in the form of air particles. The average daily air particles collected at El Tejon School was 198.4 air particles and the test sites average was 149 air particles. Also, over 144,000 vehicles pass by El Tejon each day. This is 7.5 times more cars than the other schools.</p> <p>Conclusions/Discussion Examining the collected samples under the magnifying glass made me realize what is floating in the air all around school campuses. Sunlight has different size wavelengths. This is due to particles and the thickness of the atmosphere. Blue light is made from wavelengths made by smaller particles that have very little dust, water vapor, and man-made pollutants in them. So the lighter the sky is the more air particles are in the air. Even though the skies in the mountains look darker blue than in Bakersfield, when you are close to a freeway there are still a lot of air particles present.</p>	
Summary Statement An experiment to measure what is in the air that kids breathe while on a school campus and if distance from a freeway makes a difference in the air quality.	
Help Received My mom drove me around to the testing sites, assisted me with the typing of my report and board layout.	