



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Jennifer J. Yu	Project Number 34384
Project Title When and Where People Should Jog: Analysis of Local Atmospheric Particulate Matter	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project endeavored to find out what time of the day and which commonly used jogging path in Fremont, CA had the smallest amount of fine and coarse atmospheric particles.</p> <p>Methods/Materials Materials: Dylos air particle monitor, portable battery, hygrometer, thermometer, anemometer, and watch Procedure: 1. Charging battery and plugging in air particle monitor 2. Using hygrometer, thermometer, anemometer, and watch to make sure humidity, temperature, wind speed, and time were the same 3. Recording PM1 and PM5 at four jogging paths and six different times on Saturdays and Sundays from April 2013 to March 2014</p> <p>Results 1. The Mission Creek path had the lowest particle count at 21:00. 2. Central Park had the lowest particle count at 6:00. 3. Both results above opposed the hypothesis that the Mission Creek path had the least amount of air particles at 6:00.</p> <p>Conclusions/Discussion 1. Morning joggers should go to Central Park. 2. Evening joggers should go to Mission Creek. 3. A detailed study may be needed to find out the specific components of the atmospheric particles at each tested time and place so the local residents will be able to decide when and where to jog based on their own physical condition.</p>	
Summary Statement This project collected a whole year of weekend days' PM 1 and PM 5 values to find out the time and place that were exposed to the lowest levels of atmospheric particles in Fremont, California.	
Help Received My mother drove me to the tested sites every Saturday and Sunday from April 2013 to March 2014.	