CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY

Name(s)

Jennifer Hernandez-Mora

Project Number

S1208

Project Title

A Quantitative Analysis of PM 2.5 um in Santa Maria, CA

Abstract

Objectives/Goals

The objective of this experiment was to determine what time of day, out of four times being tested, there would be a higher concentration of particulates in the air.

Methods/Materials

For this experiment, I utilized the Dylos Air Quality monitor, its accompanying equipment for data transfer to a computer, a computer, and the Dylos driver. I tested outside my home with the monitor and recorded for 30 minutes at four times throughout the day for several days.

Results

The level of particulates in the air was tested with a Dylos Air Quality monitor at distinct times of the day. After several days of the same method being used everyday, it was found that particulate concentration is highest in the morning in my area.

Conclusions/Discussion

It can be concluded that particulate matter concentration is the highest in the morning compared to later times within my neighborhood. Five in the morning, in comparison to other times which were tested is the specific time at which air pollution levels were the worst and therefore a larger threat to health of people residing in my neighborhood.

Summary Statement

I was able to determine that out of four times being tested, the earliest morning time was the time at which the level of particulates in the air was the highest within my neighborhood.

Help Received

My summer science institute advisor, Mr.Magni, provided me with the device which I used for this project. He too provided me with resources to analyze my data after the experimentation took place. I conducted the experiment and logged data on my own.