

# CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s)

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**Project Number** 

J1204

### **Project Title**

# Common Scents: A Comparison of Common Indoor Air Pollutants on Lung Function Measured by Peak Flow

# Abstract

## Objectives/Goals

The objective of my project is to determine what common indoor air pollutant has the most effect on people's lung function being measured by peak flow.

#### Methods/Materials

Informed consent was obtained from 16 participants. The participants ranged in ages from 13 to 14 years of age. Their peak flow was taken and they were then put in an environment with axe deodorant, sage smudge sticks, nag champa incense and scented candles. They stayed in that environment for one minute and then their peak flow was taken again. The pre and post numbers were recorded and compared.

### **Results**

According to my participant's average peak flow readings, people had a negative 9.7% change when put in an environment with sage. This was the material that had the most effect on people's lung function. Incense had a negative 4% change. This was the material that had the least effect on people's lung function.

#### **Conclusions/Discussion**

My conclusion is that out of all the common indoor air pollutants, sage smudge sticks have the most effect on people's lung function and peak flow. It is also most detrimental to ones reparatory tract and lung health. Incense had the least effect on people's lung function and peak flow. It was also the least detrimental to ones health out of all the air pollutants.

### **Summary Statement**

My project is a comparison of different, common indoor air pollutants and how they effect ones lung function and peak flow.

#### Help Received

Mother helped record peak flow readings