



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Tony C. Richardson	Project Number J1013
Project Title With Every Breath You Take: A Study on Peak Expiratory Flow Rate	
Abstract Objectives/Goals The purpose of my science project was to find out whether 7th and 8th grade boys at Fruitvale Jr. High have greater lung capacity than 7th and 8th grade girls at Fruitvale Jr. High. I also wanted to determine if the lung capacity of Fruitvale Jr. High students measured significantly lower than the national average given for predicted average peak expiratory flow measured in liters per minute. Methods/Materials To test my hypothesis I surveyed each subject to see if they had either asthma or allergies, and if a doctor had diagnosed their condition. I used a Peak Flow Meter to measure each subject's peak expiratory flow measured in liters per minute and compared it to the national average given for predicted average peak expiratory flow measured in liters per minute by height. ***Precautions included disposable mouthpieces for each participant using the peak flow meter. Results My results showed that for the test group, 7th and 8th grade boys had significantly higher lung capacity than 7th and 8th grade girls. Conclusions/Discussion In conclusion, both my hypotheses were proven correct. The 7th and 8th grade boys and girls at Fruitvale Jr. High also scored significantly lower than the national average given for predicted average peak expiratory flow measured in liters per minute.	
Summary Statement My project is about comparing Fruitvale Jr. High's 7th and 8th grade boys and girls lung capacity to each other and the national average given for predicted average peak expiratory flow measured in liters per minute.	
Help Received I received help from Mrs. Villicano, Mr. Plain, my mother, and a respiratory therapist.	