



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Claire E. McCammon	Project Number J1011
Project Title Lung Capacity: Girls vs. Boys	
Abstract Objectives/Goals The objective was to find out whether girls or boys have a higher lung capacity. Methods/Materials I made a homemade spirometer out of PVC pipe, aluminium tape, a pickle jar and a bucket. Then I found the height and weight of all the kids in my 5th-6th grade class (30). I came up with three pairs of a boy and girl of similar height and weight. Then I had each boy and girl blow into the spirometer five times. Then I compared each boy with the girl he was paired up with. Results My results show that the boy in each pair had a larger lung capacity than the girl in each pair. Conclusions/Discussion My hypothesis was that boys would have a larger lung capacity than girls. I thought this because boys run around more at recess playing games like football, while girls seem to walk and talk more and play games that involve less running. My hypothesis was supported by my results. A larger sample size would have been better. I was surprised at how far apart the results for boys and girls were. In fact, the ranges of the two groups didn't even overlap. I think it would be interesting to learn at what age the separation between boys and girls begins. Also, it would be interesting to know if this distinction continues on into old age.	
Summary Statement Using a homemade spirometer, his project tried to find out whether girls, or boys, have a higher lung capacity	
Help Received My mother helped type the didisplay and this application. My father helped design and make a homemade spirometer, and helped me design the graphs.	