



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Katherine A. Whorley	Project Number J0630
Project Title Do Re Mi, Who's Off Key? The Effects of Age, Gender, and Musical Training on Relative Pitch	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My project originally tested the effects of age on relative pitch. I believed that the youngest age group, ages 5-20, would be the most on pitch. However, my project escalated into a test on the effects of gender and musical training on relative pitch.</p> <p>Methods/Materials 50 volunteers were given a reference note using a keyboard. With a chromatic tuner, I measured their score, or relative pitch. There were 10 volunteers in each of the 5 age groups, 5 males and 5 females. Each volunteer filled out a questionnaire detailing their age and any musical training.</p> <p>Results My original results were inconclusive. The age data had no clear pattern. I next tested gender, but those results had no pattern either. Finally, I tested musical training, and those with training had much better relative pitch.</p> <p>Conclusions/Discussion My conclusion is that while music training improves relative pitch, age and gender have no effect. This lets me know that a singer should train and practice to improve their relative pitch.</p>	
Summary Statement My project's goal was to see if age, gender, or musical training would affect relative pitch.	
Help Received My dad took pictures for me while I did the testing. My mom helped me with Excel. My family and I had a discussion on mathematical procedures after the completion of my project.	