



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Aaron P. Gallagher	Project Number 22158
Project Title Eyes versus Ears	
Objectives/Goals The purpose of my science project was to determine if people respond more quickly to visual or auditory stimuli. My hypothesis was that people would respond faster to a tone than a graphic. Abstract Methods/Materials Using REALBasic, I made a program called the Response Tester. I put the program on my website. Participants downloaded the program and took the Response Test. I also tested my classmates on a laptop in the classroom. The Response Tester program randomly made a beep or displayed a red dot. The test subjects pressed the space bar as quickly as possible after each beep or dot (10 times each). The program recorded the time within a thousandth of a second. Then it averaged the times for the beep and the graphic to determine if the person responded more quickly to visual or auditory stimuli. I made the program so that if the participant tried to cheat by clicking the space bar over and over the Response Tester would ignore the space bar for five seconds and then return to normal. I also eliminated entries that were duplicates, hacked under 100 milliseconds or over 1,000 milliseconds. Results My hypothesis was that test participants would respond quicker to the tone. I was wrong. Thirty-seven of the 102 people tested averaged faster with sound. The other 65 averaged quicker to the graphic. Conclusions/Discussion Subjects of my research responded faster to the graphic stimuli, rather than the auditory stimuli as predicted. The average response time to graphics was .3144 seconds and the average response time to sounds was .3434 seconds, a difference of .029 seconds. I learned that in behavior science until you test the participants, your hypothesis is really just a guess.	
Summary Statement Do people respond quicker to visual or auditory stimuli?	
Help Received Mother and Father discussed project with me.	