



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Willow S. Jacobs	Project Number J0320
Project Title I Think, Therefore I React	
Objectives/Goals The purpose of my project is to determine whether age or gender affects reaction time greater. I hypothesize that age will affect reaction time greater than gender. My hypothesis is based on research that shows that there are critical changes in the central nervous system with advanced age that would slow reaction time.	
Abstract	
Methods/Materials My project used a ruler, stopwatch, and a reaction time test on the internet to determine reaction times of subjects in five age groups. The same amount of males to females were in each age group. The ruler was dropped through each subjects fingers and the point at which they caught it was recorded. The stopwatch was used to see how quickly each subject could start and stop time. The internet was accessed and each subject took the same reaction time test. Each test was repeated three times for each subject and the results were averaged.	
Results My results showed that the differences between males and females in each test were very small. The age group that consisted of subjects who were twenty to thirty years old, achieved the fastest reaction times. The subjects that were in the oldest age group and the youngest age group had the slowest reaction times. I found that the differences between the fastest and slowest age groups were large compared to the differences between genders.	
Conclusions/Discussion My data supported my hypothesis that age affects reaction time greater than gender. This data may further greater research in the medical and engineering fields to aid ageing populations with reaction time exercises or creating tools to obtain intact central nervous system activity.	
Summary Statement My project used three tests on people of different age groups to determine what affects reaction time greater, age or gender.	
Help Received My teacher Ms. Solaegui was my mentor during this project and helped me with my methodology and proofing papers. My teacher Mr. Snell and my mom also helped to proof read papers and guide me through research.	