



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> <b>Joshua D. Woods</b>	<b>Project Number</b> <b>J0399</b>
<b>Project Title</b> <b>The Mystery of Benham's Disk: Comparisons of Perception Due to the Age Process</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of my experiment is to find out if a person's age affects how quickly they perceive color. I did this project to show how ones eyes might be affected, as they get older. <b>Methods/Materials</b> I made the disk by printing the pattern off the computer (a pattern that was offered from a Benhams disk website) and then glued it onto a circle of cardboard. Next, I placed a Velcro dot on the center back of the cardboard and the opposite dot on the center of a battery operated nail file. I found 80 people (40 seniors and 40 children). Outside, in the daylight, I stood 2 to 3 feet back from each person and told him or her to watch the spinner. As soon as they saw color I asked them to call it out. With stopwatch ready, I said "go". After beginning the stopwatch and spinner, I waited for them to say a color. I wrote down the color they saw, how old they were, and how many seconds it took. <b>Results</b> The data showed that the 40 senior citizens had an average response time of 12 seconds. This was slower than 8 seconds, which was the average response time of the 40 children. It was also observed that seniors experienced both the slowest response time (50 seconds) and the fastest response time (.98 seconds). <b>Conclusions/Discussion</b> The data that I collected showed that on an average, the children perceived the colors more quickly then the seniors. The seniors average was slower because they have aged. They have used their eyes longer causing them to become more worn out so they do not respond as quickly as those with younger eyes.	
<b>Summary Statement</b> The purpose of my project was to compare how perception changes as a person ages; the data showed that as people grow older, perception slows.	
<b>Help Received</b> My mother helped me type	