



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>Flora G. Chang</b>	<b>Project Number</b> <b>J1302</b>
<b>Project Title</b> <b>The Effect of Eye Color on Peripheral Vision</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The question that my project hoped to answer was if eye color had an effect on peripheral vision. I tested the peripheral vision of people with brown, blue, and green eyes, five times each for each eye, left and right. <b>Methods/Materials</b> In order to conduct my experiment, I had to first prepare a peripheral vision protractor to measure the range of peripheral vision each person had. I constructed the protractor by using a thick poster board. The poster board was cut in a semi-circle with a small nose hole. Then, it was marked with lines showing the angles in degrees. Afterwards, a push pin was attached, acting as the focus point. Once the protractor was made, volunteers were experimented on. There were seven volunteers for each eye color, brown, green, and blue. Each volunteer then used the peripheral vision protractor by putting their nose against the nose hole while staring at the focus point. As soon as the volunteers were ready, I slowly moved a blue symbol/marker along the side of the protractor. When the volunteers were able to see the blue marker, they would say 'stop,' and the data would be recorded in the lab book. Each person was tested five times for each eye, left and right. <b>Results</b> After obtaining the range of peripheral vision for each person, the averages were then found to determine which eye color had the widest range of peripheral vision. My results were that people with brown eyes had the widest range of peripheral vision. The average for the range of peripheral vision the people with brown eyes had was 14.7 degrees for the left eye and 12.7 degrees for the right eye. (The smaller the number, the wider the range of peripheral vision.) The average for the people with blue eyes was 19.9 degrees for the left eye and 18.6 degrees for the right eye. Lastly, the average for the people with green eyes was 18.6 degrees for the left eye and 17.9 degrees for the right eye. This shows that the people with brown eyes had the widest range of peripheral vision, the people with green eyes was in between, and the people with blue eyes had the narrowest range of peripheral vision. <b>Conclusions/Discussion</b> With my results, it was evident that my hypothesis was accurate. People with brown eyes did have the widest range of peripheral vision, people with blue eyes had the narrowest range, and people with green eyes had a range of peripheral vision that was in between the people with brown and blue eyes.	
<b>Summary Statement</b> My project summarizes the effect eye color has on peripheral vision.	
<b>Help Received</b> My father bought the supplies I needed, and the volunteers that were tested on helped me obtain my results.	