



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> <b>Deanna C. Duncan</b>	<b>Project Number</b>  22105
<b>Project Title</b> <b>Which Characteristics Make a Difference in Your Peripheral Vision?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective is to determine if peripheral vision is affected by the variables of gender, athletic history, eye color, glasses, handedness, brightness of light, and an object's color.</p> <p><b>Methods/Materials</b> A vision protractor was made from cardboard and measuring tapes. Parent consent and individual surveys were obtained from fifth, sixth, and seventh graders. The peripheral vision of these twenty students was tested using the peripheral vision protractor. Both eyes of each subject were tested in bright light and dim light using four colored shape printouts. Vision results were measured in centimeters. A total of sixteen test runs per subject equaled 320 total test runs. Results were graphed and compared.</p> <p><b>Results</b> Brightness of light and the object's color had the greatest affect on peripheral vision. Bright light made it easier for people to see color. The object's color had an impact on the subject's peripheral vision. In both dim and bright light, red was the easiest color to see.</p> <p><b>Conclusions/Discussion</b> Brightness of light improved peripheral vision as compared to dim light. The most difficult color to see in bright light was green. Subjects often confused the color green with gray. Both of these colors resulted in the lowest averages because of this mistake. For both eyes, red objects were easier to see in both bright and dim light.</p>	
<b>Summary Statement</b> My project explores the personal characteristics and testing conditions that produce differences in peripheral vision.	
<b>Help Received</b> Mother helped edit writing, father helped use Excel for graphing, Project Advisor reviewed project binder	