



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Allison C. Lo	Project Number 22550
Project Title Will Color Contact Lenses Block Peripheral Vision?	
Objectives/Goals My objective is to determine if the series of color surrounding the pupil on the color contact lenses will block the user's peripheral vision. Methods/Materials 1 color contact lens, 1 clear contact lens, 1 eye patch, 1 gauze pad, 1 peripheral field testing machine, 1 contact lens case, contact lens disinfecting solution, and multiple test subjects. Test subjects wore the clear contact lens on their right eye and an eye patch was worn on top of the left eye. Then I tested their peripheral vision on a peripheral field testing machine. Each test took take about five minutes. After the test, test subjects took the clear contact off, rinsed it, and then put it in the contact lens case. The same steps were repeated again, but this time a color contact lens was used instead. Results The purpose of my testings was to discover if color contact lenses blocked peripheral vision. Of the two testings that were done, clear contact lenses proved to work better. On both trials, people who wore the clear contact lens tended to miss less points on the peripheral 68 point screening test than while wearing the color contact lens. The results showed that an average of 9.8% peripheral vision was lost when wearing clear contact lenses and that for color contact lenses, an average of 18.6% peripheral vision was lost. This is an 8.8% decrease of peripheral vision when you switch from clear contact lenses to color contact lenses. My test subjects also complained that while taking the peripheral visual test wearing a colored contact lens, he or she experienced haziness and blurriness, especially when looking through the side of their eye. An 8.8% decrease of peripheral vision may be insignificant to color contact lens wearers during daytime. But on a dark night 8.8% loss of peripheral vision can result in a car accident. Conclusions/Discussion My conclusion is that color contact lenses do block peripheral vision and that it can be detrimental to your health especially if you are driving during nighttime and cannot see well. Many of my test subjects complained during the testing, that their vision was somewhat hazy especially when looking through the side of their eye with a color contact lens. Through my experiment and testing, I would advise all contact lens wearers to use clear contact lenses instead of color contact lenses because they do not block your peripheral vision and enable you to see more clearly.	
Summary Statement My project was about color contact lenses and how they will affect a person's peripheral vision.	
Help Received My mom and dad helped me design my board. My father supervised my testings.	