



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Lee C. Rubinoff	Project Number J0333
Project Title The Magic Eye II	
Abstract Objectives/Goals The objective is to determine if visual acuity with and without corrective lenses affects the perception of hidden 3-d images. Methods/Materials Potential subjects were screened. Those without corrective lenses, over the age of 45, or colorblind were eliminated. Informed consent was obtained from 18 test subjects. The subject's age and gender were recorded. The subject was then tested with the Snellen acuity chart to define his or her acuity. Warm-up exercises were presented to the subject to view to clarify if the subject could perceive hidden 3-d images. After, a simple hidden 3-d image with subject's corrective lenses off was shown. The subject was asked if he/she saw the image as being concave or convex. Then, a simple hidden 3-d image was shown with subject's corrective lenses on. The subject was asked once again if he/she saw the image as being concave or convex. The above steps were repeated for the three image tests of increasing difficulty. Results Of the 18 subjects tested, three subjects could not perceive hidden 3-d images. For all other 15 subjects, if the subject could perceive the hidden 3-d image, then he/she perceived it the same way with and without the use of corrective lenses. Conclusions/Discussion From this study with a limited number of subjects, it appears that the use of corrective lenses does not affect the perception of hidden 3-d images. A broader study with hundreds of subject would give more conclusive results.	
Summary Statement My project is about the change in the perception of hidden 3-d images with corrective lenses on and off.	
Help Received Snellen Chart provided by Dr. Sneag.	