



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Kishan M. Ghadiya	Project Number J0409
Project Title Now You See It, Now You Don't	
Objectives/Goals To see if human behavior and sociology of analysis and perception or variables such as age and ability to perceive of Chromatic Adaptation makes a difference in how people can understand the objects or the pictures.	
Abstract	
Methods/Materials Materials: 1.Twenty humans as test subjects. 2.A stopwatch that measures the tenth of a second. 3.Three pictures with tinted sides. 4.A Computer. 5.Microsoft Spreadsheet/Word/Office Powerpoint. 6.One prepared survey to test on human subjects. Methods: Written consents were obtained from the volunteers. The method of the experiment was explained. The pictures with the two color tints regarding an airplane, baby, and dinosaur were shown. They were asked if they saw the color tint and recognized the true colors. They were told to hold the picture about 1 foot away from their eyes, and to just focus on the fixation point, and nowhere else. With the stop watch, I recorded the chromatic adaptation effect times for all three pictures of the twenty human subjects. The time of how long the chromatic adaptation effects lasted was recorded. The method was repeated twice to see if perception of chromatic adaptation was faster the second time, and to get accurate results. After that, the volunteer was asked which tinted side of the picture of the airplane looked real to them.	
Results Out of 120 tests, only 31 (26%) had the normal chromatic adaptation effect after 20 seconds and 89 (74%) tests had it before 20 seconds which is not normal.Younger people had more normal Chromatic Adaptation effects, but it was noted that the effect was different in different subjects.	
Conclusions/Discussion My hypothesis was correct. Chromatic adaptation normally occurs after 20 seconds and lasts up to one and a half minutes.In my research, it did not happen to most human surveys 89 out of 120 (74%). It happened earlier than 20 seconds which should not be the case. It should be 100%.Chromatic Adaptation was affected by psychological and other human factors such as a person's age and the ability to percept and understand the objects. Younger people may have understood the concept better then older people. Difference in human behavior and sociology of analysis and perception may have affected the outcome.	
Summary Statement Chromatic Adaptation, the physiologic phenomena, can be affected by behavior and sociology of subjects.	
Help Received General assistance from parents to help organize meetings with the subjects, put collected data in the spread sheet, and to put up the board.	