

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)

Maddie E. Hutson

Project Number

J0714

Project Title

Now You See It, Now You Don't

Objectives/Goals

The objective of this experiment is to determine if the perception of objects in our peripheral vision is influenced by the object's color. I believe that people will be able to see the red-colored object best in their peripheral vision.

Abstract

Methods/Materials

I built a vision protractor using a foam board, a pushpin, and a cup. I also cut out blue, red, green, and yellow circles of the same size and glued them to a Popsicle stick. I asked each test subject to stare at the pushpin that was centered on the vision protractor, then moved the stick with the yellow circle on it along the edge of the protractor, first to the left and then to the right until the test subject could not see it anymore. I recorded the angle at which the object disappeared from the subject's vision for each side. I repeated this with the blue, green, and red circles and recorded all the results in degrees.

Results

According to my experiment, 87% of the test subjects were able to see red in their peripheral vision best. Blue was the second easiest to see, followed by green and yellow.

Conclusions/Discussion

Red was the easiest to see in the test subjects' peripheral vision. This could be because red is the color of blood and our mind automatically associates blood with danger - and danger captures our attention. It could also be due to the fact that humans see the most red wavelengths out of any color.

Yellow was the hardest to perceive in their peripheral vision because it was the lightest color and therefore seemed to fade into the background. Studies also show yellow is the most irritating color to the eye.

Summary Statement

My project was to determine if perception of objects in our peripheral vision is influenced by the object's color.

Help Received

Mother helped purchase the materials, took photographs, and acted as the qualified supervisor.