CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY

Name(s)
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Project Number
J0720

Project Title
Don't Let the Hue Fool You

Abstract

Objectives/Goals
My objective was to find out if certain colors could cause the false perception of increased odor intensity. My hypothesis is that subjects will perceive the red gelatin as having the most intense scent, because red is a very vibrant color. I also believe that the yellow gelatin will be thought of as having the least intense scent, because yellow is the lightest color of those being tested.

Methods/Materials
Five glasses of unflavored, unscented gelatin were scented with a ½ teaspoon of raspberry extract. Using food coloring each was dyed red, orange, yellow, green, or blue. These glasses were taken to Del Monte Shopping Center and set up on a table with 50 surveys. Shoppers were asked to assist in an 8th grade Science Fair project. The subjects then smelled each cup individually and filled out the survey based on what they smelled.

Results
As hypothesized, red was selected as having the most intense scent by more subjects (40%) than any other color, and the yellow gelatin was selected as having the most intense scent by the fewest subjects (7%), with orange, blue, and green selected by 21%, 21%, and 9% of the subjects, respectively.

Conclusions/Discussion
I conclude that color can influence our perception and ranking of odor intensity. These results could be applied to advertising. Color alone could cause the desirability to be increased, or at least altered, without having to change the chemical composition of that product.

Summary Statement
My project is about the role of hue on human scent perception.

Help Received
My Dad acted as chaperon when I was surveying people at the shopping center and helped with editing my essays.