



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Emily S. Blythe; Katherine L. Ward	Project Number J0305
Project Title Sensational Scents	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Question: Can we trick our brain by adding colors to fragrances? Hypothesis: If we add different shades of green to six varied concentrations of a mint fragrance, then it will be harder for the subjects to put them in order based on concentration.</p> <p>Methods/Materials Procedure: 1. Mix six solutions of mint from weak to strong, and six shades of green, dark to light. 2. Have subjects smell each test tube and put in order according to scent. We have the darkest color with the weakest scent and the lightest color with the strongest scent (experimental group used colored solutions, and control used clear solutions). Materials: green food coloring; 2 test tube holders; mint extract; 12 test tubes; stopwatch; dropper; 100 subjects: 50 control, 50 experimental (5 male and 5 female per age group).</p> <p>Results We found that the number of correct placements according to scent for the control group was 89 and for the experimental group was 55 (out of 300 possible correct).</p> <p>Conclusions/Discussion Our results support our hypothesis. The control group averaged 1.78 correct placements per person and the experimental group's average was 1.10. We think that people use their eyesight to help them make sense of smell.</p>	
Summary Statement We tested 100 subjects to find out if our vision affects our ability to recognize strengths of scents.	
Help Received Mothers helped with transportation and getting supplies. Subjects were from UCSC, Dominican Hospital, and Bonny Doon School and community.	