



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Meagan Yuen	Project Number 31913
Project Title The Nose Knows: Does Scent Enhance Work Efficiency?	
Abstract Objectives/Goals The objective is to determine if scent affects work efficiency. I hypothesize that scent does affect work efficiency. Methods/Materials Informed consent was obtained from 33 eighth grade students and their parents. Randomized multiplication sheets (2 tables through 9 tables) containing 100 problems each were created using Microsoft Excel. There were five different tests over five days: a control, a placebo (subjects were told there was a scent in the air when there was not), eucalyptus, spearmint, vanilla, and lavender. Each day, subjects were given 60 seconds to complete as many problems as possible. The tests were graded by the number of problems that the subjects attempted to do and the number of problems correct. Results Every manipulated test showed better scores than the control. However, the eucalyptus scent ranked lower than the placebo, contrary to research. The vanilla and lavender scents showed the highest scores. Conclusions/Discussion It seems that scents do improve work efficiency. However, results show an upward trend when placed in chronological order, so the improvement may have do to do with practice. In support of my hypothesis, the vanilla scent (fourth day) showed higher accuracy and a higher median score than the lavender scent (fifth day).	
Summary Statement To test if scents affect or enhance work efficiency, timed, randomized multiplication tests were given to a class of 33 eighth grade geometry students in a scented room.	
Help Received Parents and classmates helped to grade tests; Father created randomized multiplication sheets; Mother helped log scores; used classroom and students of Mrs. K. Nishimoto.	