



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Daniela T. Riedelsheimer	Project Number J1022
Project Title Aromatherapy: The Effects of Various Aromas on Animal Behavior	
Abstract Objectives/Goals The purpose of my science project is to observe if aromatherapy affects a hamsters behavior. My hypothesis stated that the hamster's scivity level and appetite would increase by the aroma from the different oils. I am using three hamsters in three separate cages. When the hamster's are exposed to different aromas, will it change their activity level and appetite. I observed each hamster's daily routine for two days and recorded their activity level(run on the wheel) as well as how much they ate. Methods/Materials I'm using the following aromatic oils: Lavender, Orange Ginger, Sweet Fennel, Cardamom. I put one drop of oil on a cotton ball and taped it on the bottom of a film container. I poked holes in the lid of the film container and placed the containers in each cage. The hamster's will not come in contact with the oil except to smell the aroma. I recorded each hamster's time in seconds on the activity wheel between the hours 4:00PM to 12:00AM. I repeated this procedure with each oil. The second part of my test I recorded the amount of food the hamster's ate in a 24 hour period. Results Activity Level in seconds: Control (no aromatherapy)average time on wheel 19.8 seconds Lavevder oil (relax, sleep) average time on wheel 1.1 seconds Orange Ginger (energizing) average time on wheel 91.4 seconds Cardamom (appetite stimulant) average time on wheel 32.4 seconds Sweet Fennel (appetite suppressant) average time on wheel 9.8 seconds Percentage of food consumed in a 24 hour period: Lavender 55%, Orange Ginger 53%, Cardamom 70%, Sweet Fennel 67%. Conclusions/Discussion When Lavender was added the hamster's did not go on the wheel (1.1 seconds.) When Orange Ginger was added the hamster's were very active an average time of 91.4 seconds. The percentage of food eaten compared to the control at 63% the hamsters ate less food when Orange Ginger aroma was in the cage at 53% and when Cardamom aroma was in the cage their appetite increased at 70%. Depending on the aroma the activity level and appetite did increase or decrease.	
Summary Statement The purpose of my science project is to observe if various aromas, Lavender, Orange Ginger, Swweet Fennel and Cardamom affect a hamster's activity level and appetite.	
Help Received My mom helped with proof reading this project and the district science teacher helped with graphs.	