



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Roxanne S. Gibson	Project Number 22124
Project Title Investigating Rats' Ability to Distinguish Scents	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Scientists have been conducting experiments on rats for a long time. In the first half of the 20th century, scientists concentrated on understanding the physiology of rats. Many of these experiments included testing the rats' five senses. This experiment tested whether rats can discriminate between different scents if they are trained at an early age to associate that scent with food.</p> <p>Methods/Materials The subjects, nine female, albino, Simonsen out-bred rats, were put into three groups. Each group was assigned and trained to recognize a different scent. A maze was created to test the rats' ability to distinguish between the scents. Each rat was timed to see how long it took them to go through the maze.</p> <p>Results The results were that all groups improved over time. The no scent group started out with the best times, but improved the least during the experiment. Both the cinnamon group and peppermint group times through the maze improved significantly.</p> <p>Conclusions/Discussion The experiment concluded that the rats could be trained to distinguish between the different scents.</p>	
Summary Statement The project tested rats' ability to distinguish between different scents to find food when they were trained from an early age.	
Help Received Dad helped build the maze. Mom helped with the board. Oma helped edit the paper. Pappy helped print the digital pictures.	