



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> Nikita Akkala	<b>Project Number</b>  31186
<b>Project Title</b> The Effect of Aromatherapy on Cognitive Ability	
<b>Abstract</b> <b>Objectives/Goals</b> Aromatherapy has been used around the world for various applications-- stress relief, increase in alertness, memory improvement, relaxation, and even mood enhancements. In my experiment, I tested the effect of aromatherapy on cognitive ability and brain activity. Afterward, I determined which aroma showed the most improvement in performance level. <b>Methods/Materials</b> I used mice in order to conduct this experiment, because mice and humans have closely related homology and genome structures. Plus, humans cause numerous excessive variables. In total, I used 20 mice. 80 trials were conducted. Each mouse ran through 4 mazes in 3 different aromas (Lavender, Rosemary, and Peppermint) and 1 control (no aroma). For every aroma, each mouse ran through 4 different maze designs, in order to avoid the mice remembrance of the maze design. <b>Results</b> Then, I compared the average amount of time it took for the mouse to run through the maze with Peppermint (91.26 seconds), Rosemary (88.46 seconds), and Lavender aroma (75.55 seconds), with the control (123.71 seconds). <b>Conclusions/Discussion</b> In the end, I determined that aromatherapy has a positive effect on cognitive ability and brain activity, and exposure to lavender aroma shows the most improvement in the performance level of humans and animals. Therefore, my data and results supported my hypothesis, and overall I met my objectives.	
<b>Summary Statement</b> This purpose of this project is to determine if aromatherapy has an effect on cognitive ability and to determine which aroma shows the highest improvement in performance level.	
<b>Help Received</b> Mother helped in cutting and pasting, Father helped in handling mice. Shailaja Kasibhatla was the qualified scientist/biologist that approved the project.	