



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Darvy J. Alpuche, Jr.	Project Number S0301
Project Title Effects of Alcohol on Mice	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The experiment consists the measurement of a mouse intelligence while crossing a maze. I did my investigation on what alcohol can do to the human body and how mice live.</p> <p>I have an interest of how the human body functions. Also I know people who have a problem with alcohol and by investigating and performing this experiment; I do hope that I will be able to help them by providing a more depth of information.</p> <p>Methods/Materials 2X4, floor moldings thing long board of Wood; Lots of Nails, screws; 6 white feeder mice of the same sex; Laboratory Notebook; 1 Pencil; 1 Pen; 1 Ruler; 1 Hammer; 1 bag of Mouse Food; 3 Mouse Cages; Science Fair Application; A person who is M.D., D.V.M., teacher, etc. to advise; Plenty of Water; Plenty of Cheese; 1 manual or electric Saw; 2 Goggles; 3 Mouse watering tubes; 1 Timer(stopwatch); 1 Camera; Two small bowls; 2 bags of Bedding; 1 Large Plexiglas; 1 Drill; 1 Measuring Tape; One Drinking Alcohol.</p> <p>Conclusions/Discussion The result of this experiment was recognized when mouse BB#s behavior changed when it drank alcohol and there was a decrease in speed. I am certain that I recognized the results accurately because there is only one way how alcohol can affect external functions, such as body motion which was visible. Before the intoxication, mouse BB was very active and it performed all of the normal body movements and it changed when it gulp down alcohol. I found this result because alcohol goes into the blood stream which lowers down the amount of oxygen which can affect the brain because it is organized with many blood vessels. When the brain is not exposed to alcohol, it can perform its regular body functions and have its usual behavior. Since the brain was exposed to alcohol, it lost some oxygen from the bloodstream and with that loss it changed mouse BB#s behavior.</p> <p>I hypothesized that alcohol will affect the behavior of the mouse and I thought that I will be able to visualize it. Since alcohol affects the brain, I was able to visualize the loss of the mouse#s control of its body movements. Some physical tasks are visible to the eye. Such losses that were visible were the ability to walk, and the simple tasks such as moving its shoulder.</p>	
Summary Statement Mice, in the influnce of alcohol, were challenged to go through a maze.	
Help Received uncle Roberto Peña guided during the experiment; my father helped build 4'x 6' maze.	