



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Philippa D. Price	Project Number 22615
Project Title Operant Behavior in Mice	
Abstract Objectives/Goals In my project I was testing whether mice rewarded by continuous reinforcement, variable reinforcement, or scheduled reinforcement would learn best. Methods/Materials I took six mice and required them to push a lever in a Skinner Box for a reward. The mice were grouped into three sets of two, distinguished by a color mark on their backs. One group was rewarded by continuous reinforcement, one by variable reinforcement and the other by scheduled reinforcement. I conducted a series of five tests by placing one mouse at a time in my Skinner Box, and leaving it there for ten minutes whilst recording the data. Results The mice rewarded by variable reinforcement learned the best and the fastest. The mice rewarded t continuous reinforcement became greedy, and sat on the lever the whole time. The mice rewarded bt schedule reinforcement became very confused and did not seem to learn. Conclusions/Discussion In my hypothesis I expected that the mice rewarded by continuous reinforcement would learn the best. This is what most people would expect to be the most obvious method of reinforcement that would teach mice the best. However this was not supported in my experiment. From my experiment I concluded tht mice rewarded by variable reinforcement learnt not only the best, but also the fastest.	
Summary Statement My project was to test if mice would learn best when rewarded by contnuous reinforcement, variable reinforcement, or scheduled reinforcement	
Help Received Family and school helped care for mice. Father helped make Skinner box	