



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.) Emily B. Jaffe	Science Fair Use Only <h1 style="margin: 0;">J0216</h1>
Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) Positive Reinforcement in the Classroom -- Is it Effective?	Division <u>J</u> Junior (6-8) <u>J</u> Senior (9-12)
Preferred Category (See page 5 for descriptions.) 2 - Behavioral Sciences	
Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.) Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.	
<p>Objective: The objective is to determine whether third graders will retain more information with positive reinforcement than without.</p> <p>Materials and Methods: Classes will be given a pre-test on Roman numerals and will be told to do their best. The pre-tests will be collected and the students will be shown a video about Roman numerals. After the video they will take the same test again as a post-test. For half (five) of the classrooms, after the pre-test is taken, the class will be told that if they pay attention to the video and do well on the post-test, they will receive a reward (mini M&M's). For the other half of the classes, nothing will be said about a treat. The collected tests will be graded. The improvement of each set of classes (with and without reinforcement) will be averaged together. The results will be compared, and a conclusion will be made.</p> <p>Results: Classes tested without positive reinforcement had, on average, a 57.9% improvement, while the classes with positive reinforcement improved by 64.5%. The average test score of children who had positive reinforcement was 6.6% higher than the children tested without it.</p> <p>Conclusions: Positive reinforcement is effective in improving test scores.</p>	
Summary Statement (In one sentence, state what your project is about.) This experiment tests the effectiveness of positive reinforcement on third-grade students in a classroom situation	
Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4. Parents helped make contact with the schools and provided transportation; classroom teachers allowed me to come into their classrooms to perform the testing.	