



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

<p>Your Name (List all student names if multiple authors.) Emily B. Jaffe</p>	<p>Science Fair Use Only</p>
<p>Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) Positive Reinforcement in the Classroom -- Is it Effective?</p>	<p>J0216</p>
<p>Preferred Category (See page 5 for descriptions.) 2 - Behavioral Sciences</p>	<p>Division J Junior (6-8) J Senior (9-12)</p>
<p>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> <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>	
<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</p>	
<p>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.</p>	