



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Gautam Tammewar	Project Number S0315
Project Title The Effect of Different Types of Background Music on Short-Term Memory	
Abstract Objectives/Goals "Memory is the potential ability to recall past experiences, or the stored experience, that an individual has at his disposal" (Merit Students Encyclopedia, 1990). Many factors affect how quickly we forget facts, and this experiment will deal with the factor of music. I hypothesize that it will be harder to memorize in the presence of rap/heavy metal, and that it will be easiest to memorize in the presence of baroque music, because it is soft and less distracting. Methods/Materials This project was done using 35 people separated into 7 groups of 5. Each group listened to a different genre of music--rap, country, techno, metal, baroque, classic rock, and one control group who listened to no music-- while trying to memorize a set of 20 numbers for one minute. After the minute, they each were given 30 seconds to write as many numbers as they remembered, and these numbers were organized depending on which genre of music was listened to. The numbers in each group were averaged as a percentage of 20 possible numbers to memorize. Results The highest average percentage was seen in the metal group with 38% remembrance, then in the rap and country groups with 36% remembrance each, then in the control group with 28% remembrance, the baroque group with 26% remembrance, the techno group with 23%, and finally the classic rock group with 15%. Conclusions/Discussion The hypothesis that the group listening to the baroque music would yield the highest average percent was not supported in this experiment. One possible reason for this is that while one tries to memorize a set of numbers with loud metal music, their mind tries harder to block out external distractions, not just the music. Thus, that group could concentrate more on memorization rather than the music. This idea also supports the low rank of the baroque group because the mind would not shut out softer music. Another possible reason is that the subject's taste in music could have affected the results.	
Summary Statement This project's purpose was to find the best musical genre to listen to while memorizing/studying.	
Help Received	