



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Joyce L. Rushton	Project Number S0316
Project Title Concentration	
Abstract Objectives/Goals To study and determine which is the best test taking method- to listen to music through a CD/ Mp3 player, or to have a quiet atmosphere? Methods/Materials All students were tested from an Advanced Math course at Ukiah High School to control for math level. Each personal listening device, ie CD player, Mp3 player, was prepared with a copy of a CD. The songs on the CD were of mixed genre, to produce a variety of songs high school students might listen to. The test was recommended for the project by the teacher of the course, and was considered level appropriate. The students arrived to take the test on a voluntary basis. The students were divided into two groups, one group was assigned personal listening devices, and the other group took the test without any devices. Results The scores from both groups of test takers were generally poor, likely because students didn't study for the test. There were eight students who took the test, resulting in four students per group. The maximum amount of points a group could have earned on the 25 question test would be 100. Out of 100 points, the students who listened to music earned 36 points, and the students who did not listen to music earned 30 points. It was observed that the test takers without music generally finished faster than the test takers with music. The first three students to finish their tests were in the non-music group. Conclusions/Discussion The students with music performed better. This was possibly because they were more motivated to continue studying. The test required motivation for success, as the test was on a completely voluntary basis, different from a test taken during class. The students not listening to music could have been considering where else they could be at the same time students with music were tuning out all outside interest. The test takers who didn't have music finished too quickly to have given the test much thought, whereas the test takers with personal listening devices were the last to finish. Many people would agree that music is a distraction, but perhaps in this case it proves to be a positive distraction enabling us to tune out all our other interests.	
Summary Statement The objective of my project is to study the impact of listening to music on math related test performance.	
Help Received My math teacher, Mr. Cavender, helped choose a test; Friends lent me CD players; Mr. Shelton, my biology teacher, gave advice.	