



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Zachary E. Berger	Project Number J0701
Project Title To Music, or Not to Music? An Exploration in Seeing How Music Affects Concentration	
Objectives/Goals I've always listened to music when completing schoolwork, so I wanted to know: How does music actually affect my ability to work? This project, 'To Music, or Not To Music' looks at how music with different intensities and music in different genres affects one's ability to perform rote tasks (simple multiplication) and tasks that require a large amount of concentration (memorization of letters). My hypothesis was that soothing songs would help people perform both rote and concentration oriented tasks more efficiently, and as the songs increase in intensity, peoples ability to perform the given tasks would progressively cripple. I also hypothesized that songs in the classical genre would be easier to work with than songs in the pop/electronic genre, which would be easier to work with than listening to hip hop/rap.	
Abstract	
Methods/Materials METHOD I had my test subjects help me classify which songs could be deemed intense, or soothing. Then, I had another group of people listen to those songs while performing the given simple multiplication and letters to memorize. I collected that data, and processed it. MATERIALS Computer, Libre office spreadsheets, Libre office documents, iMovie, iTunes, Printer, Paper, Paper clips, 9 Pencils, White binder (storage), 15 Classical songs, 15 Pop songs, 15 Hip hop/rap songs, 10 Test subjects for part A 9 Test subjects for part B, Poster board	
Results For memorization tasks, the results did not show a clear pattern of music intensity, across genres, impacting one's ability to memorize more or less. The same was true for rote mathematical tasks.	
Conclusions/Discussion My experimental results neither proved or refuted my hypothesis because my results proved inconclusive. However, anecdotal evidence through interviewing test subjects supported my hypothesis. Consequently, my understanding is that to create conclusive results in my experiment, I would have to add many more songs to my experiment, allow for many more people to do the experiment and control an array of variables I stumbled upon when analyzing my data and speaking to my test subjects.	
Summary Statement This experiment explores the impact of music on concentration and cognition when performing tasks.	
Help Received	