



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Mei Lan Hughes; Dustin Jackson</b>	<b>Project Number</b> <b>J0611</b>
<b>Project Title</b> <b>Math Divided by Rock Music = ?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> We were curious whether our parents were right when they told us not to listen to music while we did our homework. Our science fair project focused on multitasking with auditory stimulation while performing mathematics. Our hypothesis is the auditory stimulation (music) will negatively effect our participants results while they calculate math problems.</p> <p><b>Methods/Materials</b> Two tests were created via the internet. Each test included 33 multiplication and division problems for an average seventh grade level. Test 1 was given to 15-7th grade boys and 15-7th grade girls for 9 minutes and 21 seconds in a quiet classroom. After a 2-3 minute pause, Test 2 was given to the same girls and boys for 9 minutes and 21 seconds with auditory stimuli: Hip-Hop/Rock Music at a loud volume using an iPod Speaker. Our materials were an iPod, Computer and Internet, pencils, a timer, quiet classroom, three songs ("Walkie Talkie Man" by Steriogram, "Crank That" by Soulja Boy, and "Wake Up Call" by Maroon 5), and scratch paper.</p> <p><b>Results</b> Although 7th grade girls did significantly better than the boys with and without auditory stimuli, our results showed the presence of loud music negatively effected the performance outcome accuracy.</p> <p><b>Conclusions/Discussion</b> Our conclusion is that the average 7th grader performs better without auditory stimulation. One of the many explanations for the outcome of the project is that the girls from this particular class have a better math ability, causing them to score better than the boys whether music was present or not. However, boys definately scored more accurately and completed more problems with no auditory stimuli.</p>	
<b>Summary Statement</b> Presence of auditory stimuli negatively effects 7th grade students math performance.	
<b>Help Received</b> Mei Lan's mom helped create and look up information on the computer, and took pictures; Dustin's mom provided materials, assisted with accessing County regulations, and took pictures; Mrs. Hubbard assisted in providing classroom and students.	