



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Andrew S. Sundaram	Project Number 31426
Project Title Multitasking: Efficient or Counterproductive?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The purpose of this experiment was to find out whether or not multitasking is efficient; however, I also wanted to find out the effects of multitasking on the brain.</p> <p>Methods/Materials The materials I used were a paragraph to memorize, a set of exercises in a specific order with a specific amount of repetitions, volunteers, a stopwatch, a source of music, and a pencil and a piece of paper. First, I had my volunteers do the exercises individually, I timed them and rated them for accuracy. Accuracy was based on whether or not the exercises were done in the right order and the right amount of repetitions, and accuracy of the exercise itself. Then I had them say a speech, which I rated for accuracy. Then I had them do the activities together while I played music in the background. I timed them, rated them for accuracy of both exercises and the speech, and recorded whether or not they noticed the music. Finally, I recorded my results.</p> <p>Results My results were unanimous. While Multitasking the time was slower and both tasks were less accurate as well. None of the volunteers noticed the music. Thus multitasking is inefficient.</p> <p>Conclusions/Discussion I discovered that for the exercises the frontal lobe of the brain would send signals to the muscles using motor neurons. While saying the speech, the signal goes from the brain to the larynx using interneurons. While listening to music, the eardrum transmits the signal to the temporal lobe of the brain using sensory neurons. In conclusion, all this happening at once is too much for the brain to handle, thus, multitasking is inefficient.</p>	
Summary Statement This project displays whether or not multitasking is efficient, and its effects on the brain.	
Help Received My science teacher helped me with any questions I had; My parents helped me by being supportive and driving me to the library.	