



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

<b>Name(s)</b> Emerson K. Coman	<b>Project Number</b> <b>J0711</b>
<b>Project Title</b> <b>The Effects of Doodling on Student Recall</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> I have always doodled in class. I came across an article about a test involving adults, half of whom were told to doodle while listening to a telephone conversation. Later, when they were tested on their factual memory of the conversation, it was found that adults who doodled remembered 29% more than those who did not doodle. I decided to test the effects of doodling on elementary and middle school student recall. After some researching, my hypothesis was that students who doodled during a memory test would better recall information than students who did not doodle.</p> <p><b>Methods/Materials</b> For this experiment, I tested eight classes of students in grades 4 - 7. Each class was tested twice. During one test students were told to doodle on provided paper while listening to a factual article about a type of insect. For a second test, while listening to a similar article about a different insect, they were instructed not to doodle. I randomized the test order. In each case, when the article was finished the students waited 20 seconds, then were tested on their memory of facts from the article.</p> <p><b>Results</b> Approximately 136 students were tested. My results showed that subjects who did not doodle while listening to a test article recalled 11% more on average than those who did doodle. In fact, every class had significantly lower scores when they doodled. The findings showed that doodling has a significant adverse effect on student memory.</p> <p><b>Conclusions/Discussion</b> Due to my findings, I recommend that students maintain eye contact with teachers during class lectures for optimal information retention. In this experiment, the information I gathered did not support my hypothesis, which was that those who doodled would have greater recall of information. In the future I might test the effects of doodling on long-term memory. This experiment only tested short-term memory.</p>	
<b>Summary Statement</b> My project explores the effects of doodling in class on student recall.	
<b>Help Received</b> parents helped edit report; science teacher's guidance; participants in experiment	