



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> <b>A. Gabriella Gutierrez</b>	<b>Project Number</b> <b>J0711</b>
<b>Project Title</b> <b>Snooze It or Lose It!</b>	
<div><div><b>Objectives/Goals</b> My goal was to determine if the amount of sleep you receive will affect your cognitive abilities.</div><div><b>Methods/Materials</b><ol style="list-style-type: none"><li>1. Record age, education level, stimulants; sleep/awake times Mon-Sun</li><li>2. Identify participant as non-sleep deprived (7.5 or more hrs of sleep) or sleep deprived (less than 7.5 hrs of sleep) so I can tell them apart</li><li>3. Measure the timed test by using a 1/100 second resolution accuracy stopwatch</li><li>4. When testing the participants repeat the same lighting, materials, noise level, and administer the test around the same time of the day</li><li>5. Repeat steps 1-5 doing three trials</li><li>6. Perform memory test</li><li>7. Perform judgment test</li><li>8. Perform coordination test</li></ol></div><div><b>Results</b> Non-Sleep Deprived: Memory Test: Score/min/sec 32, 35, 44, 53, 1:15, 1:18 Judgment Test: Levels 7, 3, 3,3,2,2 Coordination Test: Laps 24, 20, 19,19,14,13 Sleep Deprived: Memory Test: Score/Min/Sec 32, 55, 58, 2:00, 2:00, 2:00 Judgment Test: Levels 5, 5, 3,3,2,1 Coordination Test: Laps 19, 16, 15,15,13,12</div><div><b>Conclusions/Discussion</b> My hypothesis stated that non-sleep deprived people would achieve higher results on memory, judgment, and motor skills cognitive abilities tests. The results of my experiment proved that my hypothesis was correct. When I began deciding how I was going to test my hypothesis, I wanted to test subjects who professed to be dealing with sleep deprivation on a regular basis, who said they slept less than 7.5 hours per night and often waking up between 1-3 times a night, against non-sleep deprived subjects, which I based on sleeping 7.5 hours or more per night on a regular basis. An interesting future study would be to test non-sleep deprived and sleep deprived teenagers, elderly and in general more test subjects.</div></div>	
<b>Summary Statement</b> My project was about sleep and the effect it has on your cognitive abilities of memory, judgment and coordination skills.	
<b>Help Received</b> I used my school's science lab and benches to perform my experiment on my subjects, and my mom drove me to the store to purchase my science fair board and supplies.	