



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

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| <b>Name(s)</b><br><b>Charlie K. Crane, III</b>   | <b>Project Number</b><br><b>J0305</b> |
| <b>Project Title</b><br><b>Shut Up and Drive: Testing a Driver's Reaction Time While on a Cell Phone</b>   |                                       |
| <p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b><br/>To test subjects, both while talking on a cell phone and not; to see which way their reflexes are better and thus minimize the risk of an accident while driving.</p> <p><b>Methods/Materials</b><br/>Three tests given, each with and without cell phone</p> <ol style="list-style-type: none"><li>1. Ruler test: to measure reaction time</li><li>2. Tetris test: to measure eye-hand coordination</li><li>3. Timed Task test: to measure mental cognitive</li></ol> <p><b>Results</b><br/>The subject's combined scores while on a cell phone for the following categories: Part One: Ruler Test, was 5 centimeters slower. Part Two: Tetris Test, their score decreased by 6,262.75 points, and Part Three: Timed Test, was performed 13 seconds slower.</p> <p><b>Conclusions/Discussion</b><br/>If a subject is talking on a cell phone while driving, their reflex reaction time is significantly slower and thus putting themselves and/or others in danger. Drivers need to give 100% of their attention to driving, so they can avoid dangerous situations with their fastest reflexes. Talking on a cell phone while driving is an irresponsible behavior and puts many lives at risk.<br/>*As a bonus, but not included in my results was the additional testing of the subjects using a hands-free cell phone. The scores for this option were better than the hand-held cell phone, but not as good as their scores using their undivided attention!</p> |                                       |
| <b>Summary Statement</b><br>How talking on a cell phone will affect a driver's reflexes.   |                                       |
| <b>Help Received</b><br>Summer school classes for research and testing subjects; mom helped with the board layout, securing the testing site and subjects; dad purchased all supplies.   |                                       |