# CALIFORNIA STATE SCIENCE FAIR
# 2009 PROJECT SUMMARY

**Name(s)**
Christopher A. Powers

**Project Number**
**J1320**

**Project Title**
## Effects of Conversation on Driving

**Abstract**

**Objectives/Goals**
The purpose of my project is to find out if talking on a hands-free cell phone while driving or talking to a passenger while driving is more distracting to your driving.

**Methods/Materials**
I simulated my experiment by having the participants play a driving video game called Mario Kart Wii while being asked questions.The participants were either asked no questions (the control), or asked questions from a person sitting next to them, or over a cell phone.The trials were each repeated three times. I used the same race each time so as not to affect the data.I made several question sets that were a mix of riddles, math problems, spelling questions, etc. I used different question sets for each race so the participants would have to think for each trial.I also gathered many participants of different ages to see if different groups of people reacted differently. I allowed people who had never played the game before more practices than skilled players. I also mixed up the order in which the control, seated, and cell trials were done.

**Results**
I found that talking on a cell phone was more distracting than talking to a passenger seated next to you. The difference between the average cell and seated times is 3.9 seconds. Both the seated and cell phone trials were slower than the control (no conversation). The cell was 8.4 seconds longer and the seated was 4.5 seconds longer. I also noticed that the subject you are talking about can make a difference in how much you are being distracted.

**Conclusions/Discussion**
My hypothesis was correct. Talking on a cell phone was more distracting than talking to a passenger seated next to you. The difference between the average cell and seated times is 3.9 seconds. Both the seated and cell phone trials were slower than the control. The cell was 8.4 seconds longer and the seated was 4.5 seconds longer. I also noticed that the subject you are talking about can make a difference in how much you are being distracted. I learned that a cell phone and a seated conversation are not the only factors that can affect your driving. It also depends on what you#re being asked about. If you are asked what you will eat for dinner it will not distract you very much. But if someone asks you what 6000 minus 56 is, you will have a little more trouble.

So, if you are driving and your cell phone rings or your child has a question you might want to think about not answering them.

**Summary Statement**
My project deals with comparing the effects of distractions while driving caused by talking on a hands free cell phone and talking to a passenger in the car.

**Help Received**
Mother helped tape things to board; Father instructed me on how to make excel graphs for board