



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Sarah Guillen; Skylar Shephard	Project Number S0706
Project Title Can You Hear Me Now?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The purpose of this project was to determine which carrier received the best cell phone reception in Simi Valley, determining which transmission worked the best. It also tested which areas of Simi Valley get the most and least reception, and if the model of cell phone used affects the reception.</p> <p>Methods/Materials To perform the experiment, divide the city into half-kilometer squares and drive through each one, reading the cell phone reception for each phone in each square. Record areas of no reception, partial reception, and full reception by marking them on the map, each carrier in a specific color. After all the data has been obtained, transfer the information for each carrier to its individual map. Compare the maps and make conclusions.</p> <p>Results Nextel, which uses IDEN transmission, performed the best in the experiment. T-Mobile, Verizon, and AT&T followed behind, with Cingular producing the least amount of reception. The size of the phone had no noticeable effect on the amount of reception received.</p> <p>Conclusions/Discussion The conclusions of the project did not support the hypothesis, but the prediction was correct in that the southwest corner of Simi Valley had the lowest reception, and the central areas had the greatest amount of reception. If this project was to be redone it would be expanded to include larger areas of Ventura County, more phones, and 1 or 2 minor cell phone carriers with further research into the exact technicalities of how the type of transmission affects the reception. This project is very valuable to the person looking to purchase a cell phone who spends a lot of time in or lives in Simi Valley by letting them know what areas of Simi Valley get reception, which carrier would give them the best reception, and not to consider reception as a factor when choosing which phone model of a specific carrier to use.</p>	
Summary Statement This project is about testing cell phone reception of different carriers in Simi Valley.	
Help Received Skylar Shephard's father drove throughout the city while we read the cell phones.	