



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Joanna S. Jacobs</b>	<b>Project Number</b> <b>J0317</b>
<b>Project Title</b> <b>Read My Lips?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> This experiment was conducted to see if certain words are more easily identifiable through lip reading than others. The hypothesis was that some words formed on the lips are more articulated and easier to recognize while others are more guttural. Guttural sounds, such as the "nk" in the word "monkey", are produced in the back of the mouth and throat. Articulated sounds, such as those made in the word "football", involve primarily lip and mouth movements. <b>Methods/Materials</b> The lip reading skills of 96 subjects in grades five through eight were tested. Each of the 96 subjects watched a silent video of a male speaker pronouncing 20 words. The speaker said the words one at a time (without sound). The subjects wrote the words. The words the subjects wrote were scored for correctness against the word list. <b>Results</b> According to the results, some words were easier to lip read than others. Correct responses for each word ranged from one correct response for the word "virus", to 86 correct responses for the word "water". The fifth graders averaged only 7.52 words out of 20 correct. The sixth graders averaged 8.65 words correct. Seventh graders averaged 9.52 words correct, and the eighth graders averaged 11.2 words correct out of 20. The females (all grades) averaged 9.75 words correct which was 18% higher than the average male score (8.27 correct). One of the words in the word list was repeated (given twice). Subjects recognized the same word more accurately the second time it was given than when it was first presented. <b>Conclusions/Discussion</b> In general words with more oral articulation were easier to recognize than words with more guttural sounds. According to the results, the ability to lip read consistently improved with age. In this test, females seemed better able to identify words through lip reading than males.	
<b>Summary Statement</b> This experiment was conducted to see if certain words are more easily identifiable through lip reading than others.	
<b>Help Received</b> Darlene Katz for proof reading and editing; Robert Jacobs for general help and speaking on the videotape; Shawn Tubbs, an audiologist, for helping with the word list used to test subjects; Mrs. Hunker for supervising the whole project	