



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Mary A. Flemming	Project Number S0412
Project Title Phonics vs. Whole Words: The Effects of Rearranging the Letters in a Word	
Objectives/Goals I am determining which the brain would use more when confused by rearranged words, Phonics or Whole Word Language. I will determine if rearranging the letters in a word affects a reader's ability to read at a normal pace, without mistakes.	
Abstract Methods/Materials Explain to the human subject what they will be asked to do. (The subject must read the test paragraph aloud & while they are doing this, they will be tested on 4 key things: 1) if they could be read the test paragraph at all 2) their accuracy 3) their fluency 4) whether they read using Phonics or Whole Word Language reading.) Materials used: Stopwatch Printer Computer with 'Microsoft Office' 100 human subjects A paper with the rearranged paragraph on it Page protectors Recording journal/data journal	
Results My hypotheses stated that the Minors would read using Phonics more and the Adults would read using Whole Word more, both age groups would have the same amount of people who could read the paragraph, the adults would make less mistakes, and the Minors would be slower when reading. Overall both age groups used Whole Word more, but the Minors did use Phonics more. The Minors had 5% of the people that couldn't read the paragraph, of which I didn't use their data to analyze the rest of my results. The Adults did make less mistakes, but I proved that Phonics caused more mistakes overall.	
Conclusions/Discussion While completing my project , I found that as much as we may be taught to read using Phonics when we are younger, as we get older we use Whole Word Language and eventually Phonics is useless.	
Summary Statement To determine if rearranging the letters in a word affects a reader's ability to read at a normal pace, without mistakes in the chosen reading system.	
Help Received	