



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Catherine D. Wright	Project Number 33313
Project Title Am I Right? An Investigation of the Link between Handedness and Sidedness	
Abstract Objectives/Goals Many facilities are designed for right-handed people. Does this affect which side of the body people use for everyday activities other than writing, or does the writing hand determine sidedness? This project predicts that if subjects are right-handed, then they will use the right side of their body to perform other tasks; if subjects are left-handed, then they will use the left side of their body. Methods/Materials 56 subjects were tested (28 right-handed, 28 left-handed) on 4 categories of sidedness: handedness, footedness, eyedness, and earedness. Handedness was tested by instructing the subject to pick up a cup, use a pair of scissors, knock on a door, & toss a ball. The hand used was observed/recorded. Footedness was tested by instructing the subject to step over a rope, step on a coin, & kick a ball. The foot used was observed/recorded. Eyedness was tested by instructing the subject to look through a tube & look into a hole. The eye used was observed/recorded. Earedness was tested by instructing the subject to listen through a wall & listen to an object. The ear used was observed and recorded. Results Of the 28 left-handed subjects, 57% were predominantly left-sided in all 4 categories, 22% used their left and right sides equally, & 21% were predominantly right-sided. Of the 28 right-handed subjects, 93% were predominantly right-sided in all 4 categories, 7% used their left and right sides equally, & 0% were predominantly left-sided. Of the 56 subjects, 75% predominantly used the side of their body used for writing to perform other tasks, 14% used both sides equally regardless of handedness, & 11% predominantly used the side of their body not used for writing to perform other tasks. Conclusions/Discussion The data did support the hypothesis. Results showed that 75% of the subjects used the side of their body that they write with to perform other tasks in all 4 categories. This was more evident in right-handed subjects (93%) than with left-handed subjects (57%). This experiment could be conducted differently by testing a broader range of subjects on a broader range of tasks that revealed a subject's sidedness. Gender or age groups could also be tested to identify gender or age related factors. The information gathered from this experiment could be helpful in understanding how left and right-handed people use products/facilities, which could be used to improve future designs.	
Summary Statement This project tests the correlation between left/right handedness and left/right sidedness.	
Help Received Mother and father helped construct display board.	