



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Riley J. Norman	Project Number J0121
Project Title Don't Be a Drag: The Effect of Dimples on an Airplane Wing	
Abstract Objectives/Goals To determine how wing drag is affected by dimpling the top of the wing. Methods/Materials Two identical wings were constructed. Dimples were then drilled into one of the wings and weights were applied to equalize the weight. The wings were then tested nine times on three different occasions by suspending them in a wind tunnel and exposing them to a steady wind current. A spring scale was used to measure the amount of drag. Results The dimpled wing consistently produced less drag. Conclusions/Discussion A dimpled wing produces less drag than a smooth wing of the same shape. I observed the dimpled wing leaning towards its bottom, which could insinuate that it decreases lift.	
Summary Statement Determining how wing drag is affected by dimpling the top of a wing.	
Help Received Dad helped assemble wind tunnel, Mom gathered materials for display board.	