



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Layne M. Francis	Project Number J1811
Project Title Glue Competition on Wood. Rhino, Gorilla, Titebond, or Krazy Glue: Which Is the Strongest and Best?	
Abstract Objectives/Goals My objective was to prove which of these four glues was the best and strongest for bonding basic craft wood and simple home furniture repairs: Gorilla Glue, Rhino Glue, Titebond III or Krazy Glue. Methods/Materials Materials: Krazy Glue, Gorilla Glue, Rhino Glue, Titebond III Glue. Built a wood testing frame and used round pieces of pinewood with hooks attached for the resistance testing of the glues. A fishing scale and turnbuckle were used to create the weight resistance on each test group and glue. The wood plank and balls were both sanded and cleaned to prepare the bonding surface area. An equal amount of each glue, three drops, was used on each wooden ball tested. The glues were allowed to cure for two weeks. Resistance was used until the balls released or the scale maxed out at fifty pounds. Results As I predicted / hypothesized, Titebond III and Rhino Glue proved to be the strongest and withstood the maximum of 50 pounds of weight pull. Krazy Glue was the weakest and Gorilla Glue had the most unreliable bonding, but could withstand more weight than the Krazy Glue. Conclusions/Discussion Based on my experiment, I conclude that the method of bonding, such as depriving a surface of oxygen, plays a major part in how effective a glue can bond wood together. I would recommend Rhino Glue or Titebond II because they proved to have the strongest bond ability for common craft wood such as pinewood.	
Summary Statement Out of four of the most popular glues, which are the best / strongest for bonding wood?	
Help Received Mother helped format data tables and report; Father helped construct and supervise building of display.	