

Heather Graham  
*A Sticky Situation*

For my science fair project I used what is called a come along (a device that has a pulling force of 4000 pounds) and a scale to measure how much pressure will be needed to pull the glued wood apart in order for it to break the glue or wood. I screwed the come along to the ceiling of the shop so it was hanging down vertically. I hooked the scale to the end of the come along. At the end of the scale, I hooked a U bolt to it and the U bolt hooked to the wood I was testing. I cut and measured the wood to 10 inches so that the wood would be approximately the same length. The wood I was testing was oak and pine. I put three strips of glue on each piece of wood and clamped the wood together. I then let the wood set for 48 hours before doing any testing.

After testing the 12 tests, the Gorilla Glue worked the best on the oak. The oak failed in that test after 500 pounds of pressure. In the pine tests, the Elmer's Carpenter's Wood Glue was the strongest with a wood failure at 425 pounds of pressure.

So in conclusion I found the tests that I did would help people in the real world. The people in the construction business might have been using some glues that might not be as strong as they thought the glues were.