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*How Heat Affects Wood Glue*

I tested the effect of setting temperature on wood bond strength. My testable question was “How does the temperature of wood glue affect its strength?” My hypothesis stated that if the wood set in a higher temperature, it would hold more weight. I hoped to see if the temperature was a factor in woodworking. The basic idea for this experiment was to allow the wood to set in different temperatures and test their strength. In the experiment, I glued 2 pieces of wood together and let them set in environments with different temperatures. After they set for 24 hours, I would apply weight onto the joint to see how much weight the bond could hold. My results supported my hypothesis. The pounds supported by the wood had a positive correlation with the temperature of the wood. The highest temperature had the highest average, while the lowest temperature had the lowest average. I interpreted the data by using the average amount of pounds supported for each temperature. While some temperatures had extreme lows and highs, the average usually balanced the two out in the end. Some joints would take a while to break, while other temperatures would break almost immediately. Glue is a major factor for the wood product industry and is used every day in woodworking.