



CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s) Leila Soliman	Project Number 35166
Project Title Which One Wood You Burn?	
Objectives/Goals The purpose of this project is to burn different types of wood to see which one lasts the longest. The results will help people choose the longest lasting wood to burn in a fireplace in order to save on wood. It is hypothesized that the hard woods (birch, mahogany, walnut, red oak) will burn longer. Based on research, I hypothesized that the hardest of my wood samples, red oak, will last the longest before it completely burns. Abstract The purpose of this project is to burn different types of wood to see which one lasts the longest. The results will help people choose the longest lasting wood to burn in a fireplace in order to save on wood. It is hypothesized that the hard woods (birch, mahogany, walnut, red oak) will burn longer. Based on research, I hypothesized that the hardest of my wood samples, red oak, will last the longest before it completely burns. Methods/Materials Materials: Three 5.5 in. x 1 in. square pieces of: poplar, select alder, cherry, red oak, birch, maple, walnut, and mahogany, a BBQ gas grill, and a stopwatch. Procedure: After igniting the BBQ, two rows of three wood squares (same type in each row) were placed on the grill. The time that each wood block started to burn was recorded and after 10 minutes, the grill was turned off. The height of the flames were measured using the middle rack of the grill as a measuring tool. As the wood continued to burn while the grill is off, the time when each block of wood was completely burned was recorded. Repeat until all 24 samples of wood are burned. Results Based on the data, poplar, alder, and maple took about 10 minutes to burn. Cherry, birch, walnut, and mahogany burned in about 14-15 minutes. The longest burning wood, red oak, took an average of 17 minutes. Additionally, it is noted that the woods that produced small flames, burned longer with the exception of walnut. Conclusions/Discussion In conclusion, my hypothesis was proven correct in that red oak burned the longest.	
Summary Statement The purpose of this project is to burn different types of wood to see which one lasts the longest.	
Help Received Mom bought the supplies; Mentor supervised while using the BBQ grill.	