



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Paige A. Fontes	Project Number J2105
Project Title Burn Baby Burn: Which Wax Will Burn the Longest?	
Abstract Objectives/Goals My project was to determine whether Beeswax, Paraffin Wax, or Soy Wax would burn longer as a votive candle. I believed that Soy Wax would burn longer as a votive candle because it is a natural, non-animal product. Methods/Materials Ninety votive candles were made with exactly 65 grams of wax each. Thirty votive candles were made of Beeswax, thirty made of Paraffin Wax and thirty made of Soy Wax. All candles were numbered and placed on a cookie sheet. Candles were then lit and a timer started. As the candles burned out, the time was noted by the candle's number in the log book. Observations of smell, soot, and cleanliness were also noted. Results Soy Wax votive candles burned an average time of 25:21:56 (1521 total minutes). Paraffin Wax votive candles burned an average time of 16:04:13 (964 total minutes). Beeswax votive candles burned an average time of 1:02:30 (62 total minutes). Evidence of outliers in Paraffin Wax data and Beeswax data was observed. In recalculating the data after removing outliers, the results were: Paraffin Wax votive candles burned an average time of 19:38:26 (1178 total minutes) and Beeswax votive candles burned an average time of 0:40:57 (41 total minutes). Conclusions/Discussion My conclusion is that Soy Wax, being a natural, non-animal oil, burned longer than the other waxes. I also observed that Soy Wax seemed to burn cleaner and clean up was easier. This information is useful in the decision making process of buying candles.	
Summary Statement Which wax will burn the longest: Beeswax, Paraffin Wax, or Soy Wax	
Help Received Mother supervised the use of the fire with the candles. Father helped assemble project board.	