



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

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Project Title Economic Wax	
Abstract Objectives/Goals This project determine which wax would last longer and to test the affect of using different kinds of wax. It also studied the efficiency of re-using the burned wax. It was hypothesized that beeswax will lat longer because it has slightly higher melting point than paraffin wax. On the other, it was exected that candles made out of burned wax will burn slower than the frist time because the carbon chain gets shortened after burning which will make it harder to oxidize it.	
Methods/Materials To test the hypothesis, equal mass of each kind of wax was used. Molds with the same volume and shapes were prepared and candles were burned with both kinds of wick. The left over wax from each candle was re-used in preparing the next burning stage for each kind of wax. The burning took three stages until the left over was not enough to from two candles as well as its mass before and after burning. Flat wick in beeswax didn't burn as fast as square wicks in beeswax.	
Results Flat wick was better with beeswax than square wick while the last was better with paraffin wax. The difference in burning time between the two kinds of wick was big in beeswax companied to it paraffin wax.	
Conclusions/Discussion It was concluded that re-using the left over wax from burned candles regardless of the wax type is an economical way because the more the wax is re-used, the longer time it lasts to burn.	
Summary Statement It is about which wax lasts longer icase of a blackout.	
Help Received My teacher helped me for the final check of my project.	