

Chemistry 30: Prelab Quiz 1 Questions for Candle Combustion Lab

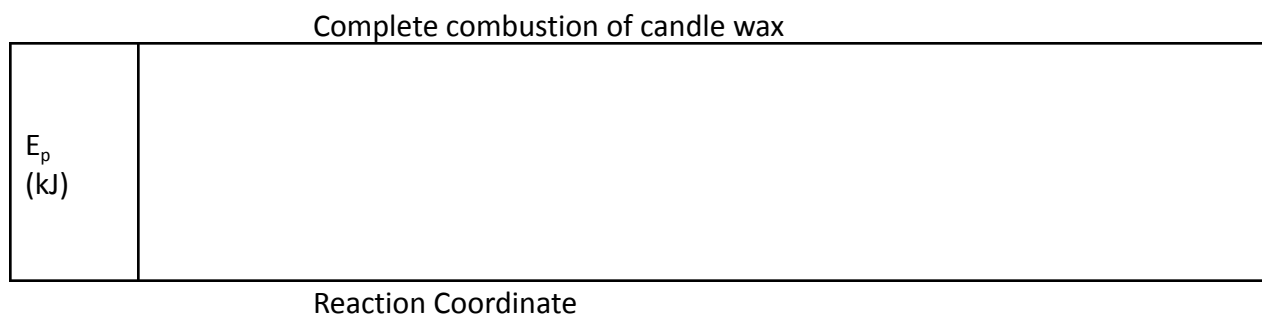
Name _____ Date _____ Score ____/5

1. You have observed candles burning many times. Fact: **the candle will not undergo complete combustion.** What evidence will support this? (Hint - think about what a flame undergoing complete combustion looks like)
2. Why are you starting with water that is 10 to 15 °C below the room temperature?
3. Why is there a specific distance that the wick of the candle should be below the bottom of the can?
 - What effect would there be if the wick was closer?
 - What effect would there be if the wick was further?
4. What is the chemical formula for candle wax? _____

Chemistry 30: Prelab Quiz 2 for Candle Combustion Lab

Score ____/5

1. Write and balance the reaction for the complete combustion of candle wax ($C_{25}H_{52(s)}$) (1 mark)
2. Sketch the potential energy diagram to represent the energy change as bonds are broken and reformed for this combustion reaction. Clearly show if the reaction is exothermic or endothermic. (2 marks)



3. In Alberta, People are reminded to carry emergency kits in their cars during the winter months to keep them safe in case of a breakdown on the road. Candles and matches are among the items we are supposed to carry. Based on the information in your balanced reaction, give two **dangers** that result from lighting and burning a candle in an enclosed space. (2 marks)
 - a. _____
 - b. _____