

Name: _____

The Burning Candle Exercise - Chem

Date: _____

Spend about 10-15 minutes observing the burning candle provided by your instructor. Document as many direct observations about the burning candle as you can. When you are finished, you should have captured enough information to accurately describe the many processes that are taking place as the candle burns.

1. Describe the different parts of the candle flame. What are their colors?
2. What happens if you put a cold object into flame?
3. Describe any movement of the flame in melted wax that you can observe.
4. Describe the heat produced by the flame. What happens to it?
5. Make an "educated guess" about the nature of the chemical process taking place.
6. Speculate on the impact that the following changes might have on your burning candle:
 - A. The percentage of Oxygen in the atmosphere around the candle is doubled to 42 percent.
 - B. The percentage of Oxygen in the atmosphere surrounding the candle is decreased to 11 percent.
 - C. The diameter of the candle was doubled.
 - D. The surrounding temperature was decreased to -150° Celsius an hour before the candle was lighted and is maintained as the candle burns.
 - E. The location of the burning candle was changed to inside of the space shuttle in orbit around the earth.

(Use additional paper if needed.)