Candle Lab – Observations and explanations Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date \_\_\_\_\_\_\_\_\_\_\_\_\_ Blk \_\_\_\_\_\_

1. Observe anUNLIT candle. Write down THREE QUALATIVE and THREE QUANTITATIVE observations.

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| --- | --- |
| Qualitative  | Quantitative  |
|  |  |

1. Light candle. Draw what you see. Write down as many observations as you can.

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| Drawing | Observations |
|  |  |

1. Blow out candle. Write down as many NEW observations as you can.
2. You should have a minimum of 15 observations in total.

**Questions:**

1. What is the difference between an observation and an inference?
2. In science, we use the words, “qualitative” and “quantitative” to describe observations. What do these words mean?
3. A PHYSICAL PROPERTY of a substance is a characteristic you can observe (see, feel, smell, measure). List 5 physical properties you observed.
4. A CHEMICAL CHANGE is a change in an object’s chemical properties and is indicated by a change in smell, colour, texture, or the production of energy in the form of heat or light. List THREE observations that indicated a chemical change occurred.

BEFORE LIGHTING:

1. What is the color of the string at the top of the candle?
2. Describe what the candle feels like.
3. Can you see any marks, or spots, inside the candle?
4. Look at the bottom of the candle. Is the string the same color as at the top?
5. Describe how hard the candle is. Tell if it is hard in some places, and soft in others.
6. Say something about the candle.

AFTER LIGHTING THE CANDLE:

1. How much of the exposed string (1/2, 1/3, etc.) is surrounded with flame?
2. What colors are in the flame?
3. The greatest part of the flame is what color?
4. Draw the flame. Be sure to show the string.
5. Is there any smoke?
6. What must you do to make smoke?
7. What color is the smoke?
8. Where is the flame dark?
9. Does the flame come to a sharp point?
10. What can you do to change the shape of the flame?
11. Draw a line to show how far into the candle the light goes.
12. Does the top of the candle have a little cup of melted wax?
13. Is the cup the same on all sides?
14. Is wax dripping down the side of the candle?
15. Draw the wax that is dripping down the side of the candle.
16. Let ONE DROP of melted wax fall onto your hand. How hot is it?
17. For how long a time does the drop of melted wax stay hot?
18. Does the candle make any noise as it burns?
19. Can you read the page by the light of your candle?
20. Does the burning candle produce an odor?