

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## Engage: Hook - I Can't Breathe

**Instructions:** Make sure to read and follow all the procedures listed below. BE CAREFUL/CAUTIOUS WITH FLAMES AND MELTED WAX... USE YOUR COMMON SENSE!!

### **Vocabulary:**

*QUALITATIVE* - Observations that describe qualities or characteristics.

*QUANTITATIVE* - Observations that involve quantities, amounts or measurements.

### **Procedures:**

**PERSON #1:** Measure the mass of the candle before lighting. **Mass** \_\_\_\_\_ **grams.** Carefully light a candle using a match. Make detailed observations of what is happening throughout the procedure.

*Observations:*

**PERSON #2:** Take a beaker and place it over the candle. Make detailed observations of what is happening throughout the procedure. Note at least 3 specific observations.

*Observations:*

**PERSON #3:** After making the observations, feel the inside of the glass. Make detailed observations of what is happening throughout the procedure. Note at least 3 specific observations.

*Observations:*

**PERSON #4:** Relight the candle. Hold your breath for as long as possible and then quickly release your breath into the glass and immediately place over the lit candle. Make detailed observations of what is happening throughout the procedure. Note at least 3 specific observations.

*Observations:*

Explain why your observations happened as they did in this procedure #4.

**PERSON #5:** Relight the candle.

- a. Turn on the lighter.
- b. Blow out the candle.
- c. Immediately move the lighter ABOVE the candle.
- d. DO NOT TOUCH THE WICK.
- e. Measure the mass of the candle after lighting. Mass \_\_\_\_\_ grams.

*Observations:*

Explain why your observations happened as they did in procedure #5.

**LEARNING CHECKPOINT**

Can you answer these questions, if not write these questions in the “during instruction” section of the Investigative Phenomenon Worksheet

1. What is needed for a combustion reaction to take place?
  
  
  
  
  
  
  
  
  
  
2. What is formed in any combustion reaction?
  
  
  
  
  
  
  
  
  
  
3. How would you know if a reaction is a combustion reaction?
  
  
  
  
  
  
  
  
  
  
4. What are the products of any combustion reaction involving a hydrocarbon?