

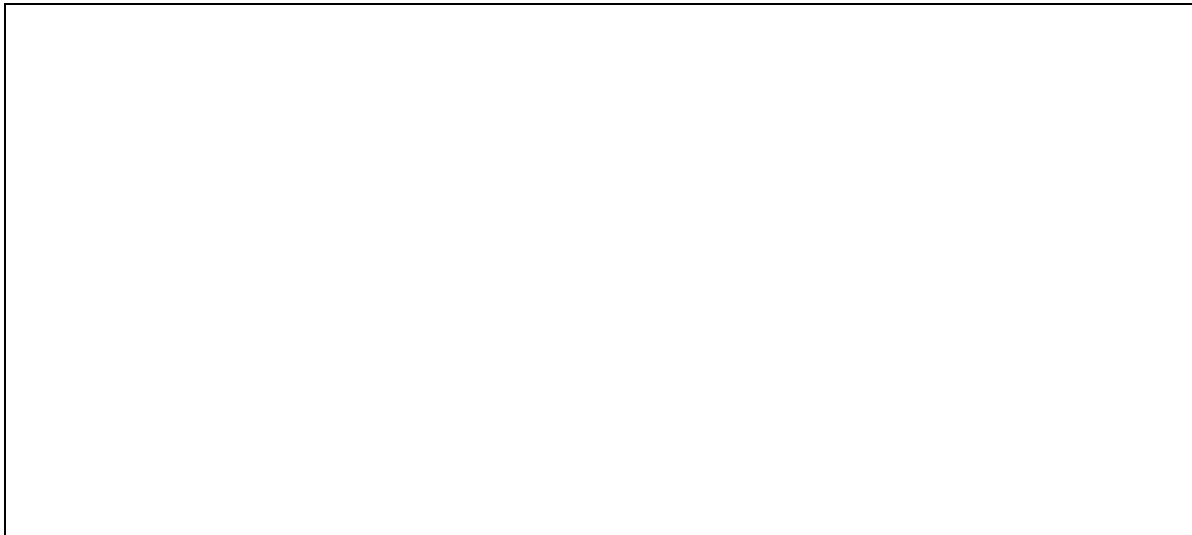
Where do the Particles Go? A Model of Combustion.

Name _____

Phenomenon: Watch as a piece of paper is burned. Ask three questions:

- 1.
- 2.
- 3.

Draw a model of what was happening to the particles of paper—label as needed.



Observe the candle in the jar demonstration.

| Mass before lighting the candle. | Mass after the candle goes out. |
|----------------------------------|---------------------------------|
| | |

Ask three questions:

- 1.
- 2.

3.

Draw a model of what was happening to the particles that helped explain the mass readings.
Label as needed.



4. Watch either of these videos [Matter Cannot Be Destroyed](#) or [The Law Of Conservation of Mass](#)

5. Write a general statement about the number of particles (atoms) when they undergo a chemical change before and after combustion? This idea is called _____

6. (For demonstration) Watch your teacher as they relight the candle from various positions. Predict if you think it will work. Write an explanation as to why this works. Use your knowledge of the Law of Conservation of Matter.

| Position of lighter | Results and explanation |
|---------------------------------|-------------------------|
| Lighter touching the wick | |
| Lighter to the side of the wick | |
| Lighter above the wick | |

7. (For class activity) Your challenge is to relight the candle without directly touching the lighter to the wick of the candle. Write your plan and the results on the chart. Use your phone to slow-motion record what is happening. Write an explanation as to why this works or does not work. Use your knowledge of the Law of Conservation of Matter.

| Position of lighter | Results and explanation |
|---------------------------------|-------------------------|
| Lighter touching the wick | |
| Lighter to the side of the wick | |
| Lighter above the wick | |

Summary:

Make a **claim** about the number of particles that go through a chemical reaction.

What **evidence** was convincing to you?

What is your **reasoning**?