

Lesson 6 - Conservation of Matter (mass) and Energy

Purpose - Explain the law of conservation of mass after observing a chemical reaction.

1. Warm Up - What does your body do with the food you eat? Write at least 3 examples. Feel free to draw a picture.
2. Read together - the [Lab Safety agreement](#) (in Google Classroom)
3. Set up the experiment - Conservation of mass - Flaming Hot Cheetos
 - Student roles
 - i. Cheeto “holder” with a large paperclip
 - ii. Candle “wind blocker” with foil
 - iii. Measuring mass of all items separately

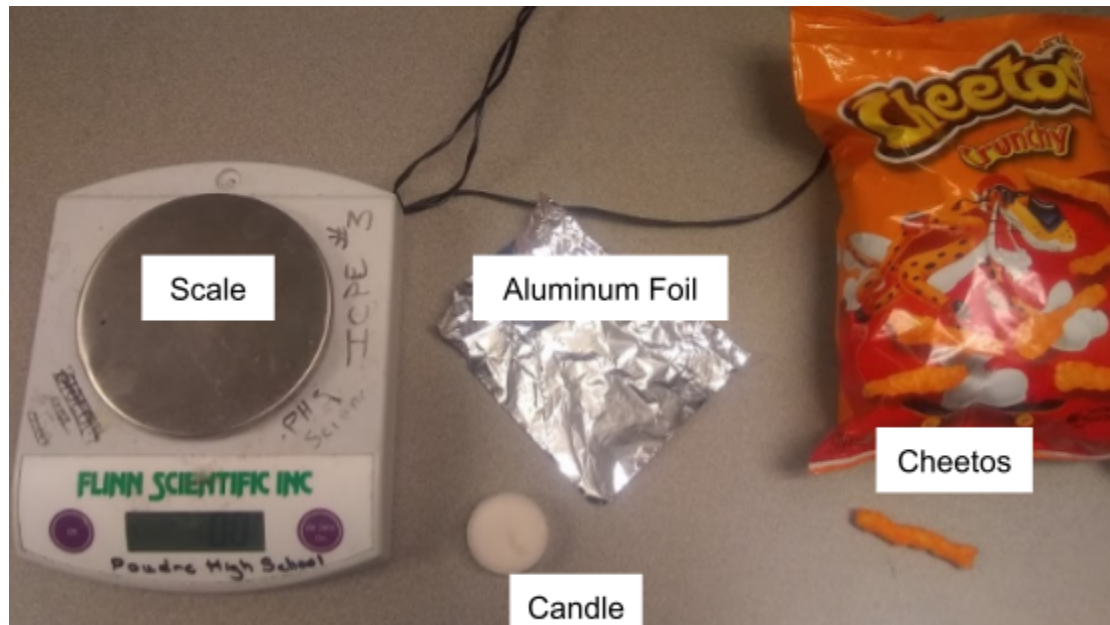


Conservation of Mass - Flaming Hot Cheetos

Objective - Measure the before and after mass of Cheetos that are burned.

WARNING: We will use fire today. Do not intentionally harm yourself or others. Keep Cheetos over the foil once burning. Allow to cool. Report any injuries (hair and fingernail polish).

Materials:



Write -

1. Question - What will happen to the mass of Cheetos when one is set on fire?
 - 3 possibilities - mass can...
2. Hypothesis - Write your guess about what you think will happen and why.

I think that the mass of the Cheetos will _____ because _____.



3. Data: Mass before _____ g (grams). Mass after _____ g

What did you observe while the cheetos burned?

4. Conclusion -

Answer each with a complete sentence.

A. Write a **claim** about your before and after mass.

Overall, the mass of the cheeto _____.

B. Use **evidence** to support your claim (use your data).

I know the mass _____ because I measured _____.

C. **Reason** - How does this experiment show the Law of Conservation of Mass.

This experiment shows the law of conservation of mass because _____.

D. How does this experiment show what happens to trees that are burned in a wildfire?

Law of Conservation of Mass

- *Mass is neither created nor destroyed in ordinary chemical and physical changes*
- Must start and end with the same amount
- **Example**



This experiment is like wildfires because _____.

Source - [The Law of Conservation of Mass](#)).

4. Review Grade Rubric - MYP language - ([Criterion C](#))
 - Note - not every part of the rubric will be assessed in every experiment.
5. Academic Language (using terms correctly) -
 - Watch - [It's OK to be Smart](#)
 - Discuss - How is the word "theory" often misused?
 - Write - [Law, Theory, and Hypothesis](#)

Finished Early - Correct mistakes on old work, Work on other classes, Read. Still, no phones or just being on the internet. Be productive.