

Law of Conservation of Mass Inquiry Lab

Purpose:

To design and complete a laboratory experiment that proves the law of conservation of mass.

Background Information:

Write a paragraph that includes the following:

- Define the law of conservation of mass and discuss the implications for chemistry.
- Explain what a closed system is.
- Explain what an open system is.

Reagents:

Water, Alka-Seltzer tablets

Procedure:

Experiment 1: Design an experiment to test the law of conservation of mass in an open system.

Experiment 2: Design an experiment to test the law of conservation of mass in a closed system.

You *must* get your procedure approved before you begin experimenting. Let me know what lab equipment you will need for your experiment.

Data/Observations:

Include a data table for both experiments. Be sure to include qualitative observations as well as measurements.

Run 2 trials of each experiment.

Calculations:

Include any calculations you made during this lab.

Questions:

1. Compare the differences in mass before and after the reaction for Experiment 1. Explain any discrepancies in the masses.
2. Compare the differences in mass before and after the reaction for Experiment 2.

Conclusion:

Did either of your experiments justify the law of conservation of mass? Why or Why not? Use your data to explain. Be sure to address any sources of error you made. Explain how you would improve this experiment.