

Law of Conservation of Matter Mini Lab

Materials:

1 zip lock bag Baking Soda (Sodium Bicarbonate) 2 small cups
Vinegar (acetic acid) Electric Balance

Procedure:

Part 1:

1. Fill one cup halfway with vinegar.
2. Fill a second cup halfway with baking soda.
3. Take the make of the two cups and substances together.
4. Pour the vinegar into the cup of baking soda.
5. After it has reacted, record the mass of the 2 cups and the mixture. Calculate the change in Mass. Record data for part one in the data table.

Part 2:

6. Repeat steps 1-2.
7. Put both cups in the plastic bag. Take care NOT to spill the contents of either cup.
8. Determine the mass of the cups and their contents, and the plastic bag. Write the values in your data table.
9. Seal the plastic bag.
10. Without opening the bag, pour the vinegar into the cup of baking soda.
11. Without opening the bag, record the mass of the contents of the plastic bag. Take care not to break the seal of the plastic bag.

Data:

	Initial Mass (g)	Final Mass (g)	Change in Mass (g)
Part 1			
Part 2			

Part 1 Observations:

Part 2 Observations:

Questions:

1. Describe what happens when the vinegar was poured into the cup of baking soda.
(Physical/chemical change?)

2. What is the law of conservation of mass?

3. Was mass conserved in part 1? Where did it go? Explain.

4. Was mass conserved in part 2? Explain.
