Mass Lab

Question: Does mass change when baking soda reacts with vinegar? SNC2D, Chemical Reactions, Lesson 6

Name: _____ Date: _____

Hypothesis (If…, then…, because…), for the open cup and for the sealed bag:

Trial	Mass before (g)	Mass after (g)	Change (g)	Percent change
Open cup				
Sealed bag				

Observations during each reaction:

Safety

Goggles on. Only 2.0 g baking soda and 30 mL vinegar per trial. Point the bag away from faces and open it slowly. Keep liquids off the balance. Liquids down the sink with water; bags in the garbage.

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Analysis

Show your work. SNC2D, Chemical Reactions, Lesson 6

Name: _____ Date: _____

Percent change = |mass after − mass before| ÷ mass before × 100%

1. Calculate the change in mass and the percent change for each trial (use your data or the class sample data).

2. Why did the open cup lose more mass than the sealed bag? Name the substance that escaped.

3. The sealed bag lost a little mass too. Give two possible reasons.

4. Does your evidence support the law of conservation of mass? Explain.

Apply it: A student heats 2.54 g of copper powder in an open dish. After heating, the product, copper(II) oxide, has a mass of 3.18 g. Did the student break the law of conservation of mass? Explain, and write the balanced equation.

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