Name Period Date

It’s the Law: Chemical Change

STARTER: Does the Law of Conservation of Mass apply to chemical changes? Defend your answer.

How are an open system and a closed system different from each other?

**Instructions:**

Before the class period is over today, you must be able to prove beyond a shadow of a doubt that the Law of Conservation of Mass is true for the chemical change of baking soda plus vinegar. You will need to decide how you will use the materials at your disposal to create a closed system so that any gases that are produced still can be massed (remember gases have mass and take up space).

**Grading Rubric:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Criteria | 3 | 2 | 1 | 0 |
| Organization | A neat and tidy table is used to organize the data collected and has all the elements of a good table | A table is used to organize the data collected and has most of the elements of a good table | It kind of looks like a table  | No table is used |
| Procedures | Procedures are detailed so that someone could repeat what you did and are in a numbered list | Procedures are mostly detailed but the reader would need to ask a question or two  | Procedures are somewhat detailed but the reader would need to ask a lot of questions | Procedures are not present |
| Journal of Attempts | An organized, detailed journal is kept of what you tried and the results of those tries | A journal is kept of what you tried and the results of those tries | A journal is kept but it is unclear what you tried and/or the results are unclear | A journal is not kept |
| Conclusion | Short paragraph describes your most successful attempt and the results of that attempt. It explains why this was your best attempt by referring to other attempts and their results | Short paragraph describes your most successful attempt and the results of that attempt.  | It’s not a short paragraph really, but more of a sentence | No conclusion |