**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_Date\_\_\_\_\_\_\_­­­\_**

**Gum Lab**

**Physical Science**

**Purpose:** A laboratory activity confirming the law of conservation of matter by weighing chewing gum before and after it is chewed. “Will it weigh more, less or the same? What happens to the matter?”

**Materials:**

* Gum
* Balance
* **CaCalC**Calculator

**SAFETY NOTES:**

* Students should not handle their gum, it can be weighed before and after in its wrapper. The gum can also be transferred from the wrapper to the mouth with the wrapper and not be touched by the fingers. This is a science experiment.

**Procedure:**

1. Remember NOT to handle or touch your gum in this experiment
2. Use the gum wrapper to mass the gum and transfer it
3. **Record a Hypothesis in the table below**
4. Use the electronic balance to take the mass of the gum and wrapper (you do not need to unwrap it yet) and **RECORD in the table below**
5. Unwrap the gum but do not touch the gum, and chew for 10 minutes.
6. Reweigh the gum and wrapper (remember NOT to touch the gum) and **RECORD in the table below**
7. Throw the gum and the wrapper away into the trash can
8. Clean up any other mess or trash.

**Data Table:**

|  |  |
| --- | --- |
| **Hypothesis: will the gum weigh more, less, or the same after chewing?** |  |
| **Mass of the pre-chewed gum and wrapper** |  |
| **Mass of the post-chewed gum and wrapper** |  |
| **Mass lost or gained (pre-chew mass – post-chew mass)** |  |

**Analysis:**

1. **How much was lost or gained? Calculate the percentage.** 
   1. Amount lost in grams:\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Amount lost by percentage:\_\_\_\_\_\_\_\_\_\_\_\_

Mass lost or gained x 100 =

Pre-chewed mass

WORK:

1. **If you lost or gained mass, what do you think was lost or gained? Where did it go?**
2. **Was your hypothesis correct?**
3. **How does this lab relate to the conservation of mass?**