Name:
Period:
Date:

MASS MANIA

ACTIVITY ONE – Guess the Mass:

Pre-Lab: Before beginning your combination predictions select four objects from your cup and measure the mass and record in the chart below. Use this information to help you make estimations about which objects you will combine to achieve the desired mass in the lab activity below.

Object Name	Mass of the Object (g)

Directions: Using your observation and estimation skills, predict what objects (when combined) would get closest to the targeted mass. After you write your prediction, find the mass of the object and record the true mass of the objects. REMINDER: Make your prediction **BEFORE** you actually find the mass using the electronic balance.

Target Mass (g)	Object Combinations (Predict)	Measured Mass (g)
5 g		
10 g		
15 g		

ACTIVITY TWO – Mystery Eggs:

Direction: Figure out how much **matter** (the "stuff" that makes up all objects) is in 3 different eggs.

Predict: If you know that an electronic balance (scale) is used to measure mass, what do you think is the definition of mass?

- *I think mass means* _____
  _____

Procedure:

1. Turn on the electronic balance and double check to make sure it is at 0.0g. If not, tare the electronic balance to make sure it is back to zero.
2. Measure egg 1 and record the mass in your data table.
3. Before measuring the next egg, check again to make sure that the electronic balance reads 0.0g.
4. Measure and record the mass of eggs 2-3.

Egg #	Mass (g)

Analyze: Rank the eggs from highest to lowest measured mass *(write the number of the vial).* **Explain** which vial has the *most* matter in it. **Justify** your explanation using the data you collected.

- Ranking: (highest mass) _____, _____, _____ (lowest mass)
- *The egg with the most amount of matter is* _____ *because* _____

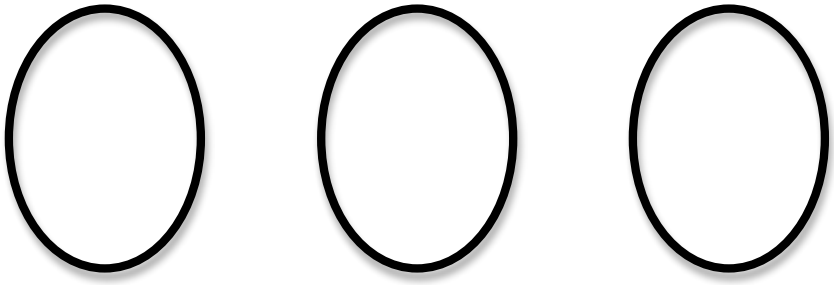
  _____ .

Apply: You go to the store and buy a piece a cheese that has a mass of 150g. If you cut the cheese in *half* and gave one piece to your friend, how much would *each* person have? Using the term "**mass**", **explain** how you were able to find the amount for each person.

ACTIVITY THREE – Show What You Know!

Read: Read the short article (on a separate piece of paper) and answer the questions on the back of the paper. When you are done, finish answering the questions below.

Apply: Using your measurements from the data table, below, **draw** what the ***matter*** would look like *inside* of EACH egg. Use dots, shading, or criss-cross lines to represent the *amount* of matter.



Egg # **Egg #** **Egg #**

Reflect: *Redefine* mass using your data and the reading as evidence. Make sure to use the terms "**mass**" and "**matter**" in your definition.