Name:
Period:

C is for Cookie

In this lab, you'll be using "elements" from the periodic table below to construct a particular edible compound, which will be assigned to you. For your assigned edible compound, you will:

1. Determine the percent composition of each "element" in your compound
2. Write the empirical formula
3. Subject your compound to heat and determine whether the resulting reaction is chemical or physical
4. Use ALL of your senses to observe the compound
5. Your instructor reserves the right to fully observe your compound, as well.

Useful conversions:
16 tablespoons = 1 cup
3 teaspoons = 1 tablespoon

Abbreviations:
c = cup
tsp = teaspoon
Tbs = tablespoon

Figure 1: PERIODIC TABLE OF YUMMINESS (masses in units of grams/tablespoon)

Cn	**Ot**	**Fl**	**Bu**	**T**	**Rs**
6.65	7.46	10.63	11.98	12.31	13.02
Cinnamon	Oatmeal	Flour	Butter	Cream of Tartar	Raisin
Sg	**Bp**	**Vn**	**Pn**		**Mi**
14.15	14.68	14.93	15.55		16.04
Sugar	Baking pow der	Vanilla	Peanut Butter		Milk
Bg	**$NaHCO_3$**	**Ch**	**E**	**NaCl**	**M**
17.59	17.64	17.79	18.66	19.26	20.04
Brow n sugar	Baking soda	Chocolate Chip	Egg	Salt	Molasses

Don't forget this!

Pre-Lab Questions: Write your compound number here: _____

1. In the periodic table above, why might a space have been left between Pb and Mi? Be as specific as you can.

2. What process will you use to determine the percent composition of each "element" in your compound? (Think about what information you need to find out.)

Data:

Data Table 1: Data used to determine percent composition of elements in edible compound

Element	Atomic Mass	Mass in Compound	Percent Composition
	Total Mass:		

Additional observations utilizing all of your senses (consider appearance, texture, taste, etc both prior to and after your compound was subjected to heat.):

Calculations:
Use this space to make any calculations you may need to make to determine either percent composition or empirical formula.

Conclusions:

1. The empirical formula for compound number _____ is: _____
2. What might account for the changes seen in your compound after being subjected to heat? Were these chemical or physical changes? Give evidence.

3. Did the reactants have properties similar to, or different from the products? Explain.