Name: _____ **Period: _____ A/B**

Percent Composition of Double Bubble

Percent composition is a common method of analysis to help identify a substance. To calculate the percent composition of a specific component within a compound, the following formula is used:

$$\text{Percent Composition} = \frac{Mass\ of component}{Mass\ of\ Substance} \times 100\%$$

Double Bubble chewing gum contains several compounds, including sugar. When you chew double bubble gum, the sugar is dissolved by your saliva, leaving the other compounds behind. By weighing the gum before and after chewing it, you can determine the mass of the sugar, and using the above calculation, the percent composition.

Pre-Lab Question – Complete the following question. When you are finished, have your teacher sign off on them to get your materials.

A substance contains 25.2g of oxygen and 8.5g of carbon. What is the percent composition for each element?

Lab Procedure:

1. Obtain a piece of wrapped bubble gum. Determine the mass of the gum (with the wrapper on).
2. Remove the wrapper and chew the bubble gum until all the sugar has been dissolved (swallowed) – you will know this has happened because the gum will stop tasting sweet (3-4 minutes).
3. Find the mass of the wrapper while you are chewing, but don't throw the wrapper away.
4. Return the chewed gum to the wrapper and find the mass.

Data & Observations

Be sure to record all data to the correct number of significant figures and show all work for calcultions!

Mass of unchewed gum (with wrapper):	
Mass of wrapper:	
Mass of chewed gum with wrapper:	

Mass of unchewed gum:

Mass of chewed gum:

Mass of sugar in gum:

Calculate the percent composition of the sugar: