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## Lab: The Amount of Sugar in Bubble Gum

Purpose: To determine the percentage of sugar in bubble gum.

## Procedure:

1. Mass the piece of bubble gum on the balance while it is in the wrapper. Record this information in the data table; be sure to use estimated digits!) DO NOT THROW AWAY THE WRAPPER ©
2. Chew your gum for 5 minutes. During this time you should only be chewing your gum, not blowing bubbles or talking.
3. Place your gum back in the wrapper and take the new mass. Record this information in the data table.
4. Complete the questions and calculations. Remember to show all of your work.

## Data Table:

Mass of unchewed bubble gum
Mass of chewed bubble gum

## Calculations:

1. Calculate the amount of sugar lost when the gum was chewed
2. Determine the \% of sugar in the gum.
3. Calculate the percent error of the sugar in your gum compared to the manufacturer's.
4. What is the formula mass of sugar (sucrose)?

## Questions:

1. Do you think a dentist would recommend chewing this gum? Why or why not?
2. List two factors that might affect the percentage of sugar that you calculated. Explain HOW they affect your amount of sugar.
3. List some practical uses for determining the percentage composition of substances.
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## Percent Composition Calculations:

1. $\mathrm{C}_{12} \mathrm{H}_{22} \mathrm{O}_{11}$
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\%C
\%H
\%O $\qquad$
2. $\mathrm{Fe}\left(\mathrm{HCO}_{3}\right)_{3}$
\%Fe $\qquad$ \%H $\qquad$ \%C
\%O
3. $\mathrm{CuSO}_{4} * 5 \mathrm{H}_{2} \mathrm{O}$
\%Cu $\qquad$ \%S
\%O
\% $\mathrm{H}_{2} \mathrm{O}$
