

Name _____ Date _____ Period _____

Bubble Gum Science Review

Directions – Obtain a piece of bubble gum from the teacher to complete the following experiment to review types of observations...and some math! (You're Welcome!!)

Part A – Observations

- A) There are 2 main types of observations that are done while collecting data in an experiment;

Qualitative – observation that is a written description (adjectives)

Quantitative – observation that has numeric values (numbers)



- B) Complete the following data table to determine the type of observation being used.

	Bubble gum color	Bubble gum mass (digital scale)	Bubble gum smell	Bubble gum volume (mass x width x length)
Observation				
Type of Observation (qualitative or quantitative)				

- What is the difference between qualitative and quantitative observations?
- Why do you think both qualitative and quantitative observations are helpful for gathering data?

Part B – Chomper Challenge

- A) For this part of the experiment, you will conduct 5 trials and then determine the average number of casual chomps you can do in 30 seconds. ****You are just casually chomping, not speed chomping****
- B) Use a timer to keep track of time while you count how many official chomps you complete in 30 seconds
- C) Record the results in the data table below

Trial	1	2	3	4	5	AVERAGE
Number of Chomps						

- D) Use the average from the data table above to now calculate speed (CPS) that you casually chomp gum. Round to the nearest tenth.

Use the following formula to help you.

Speed = AVERAGE ÷ Time = CPS (Chomps Per Second)

Your AVERAGE Chomping Speed = _____

- E) Based on your AVERAGE speed (CPS) how many chomps will you complete in five minutes, one hour, or on day?

5 min = _____ CPS

1 hour _____ CPS

1 Day _____ CPS

1. What types of observations were made to gather information (data). Support your answer with evidence. (Hint – how do you know what type of observation is made? Definitions? Descriptions? Where did you find your answer?)

Part C – Speedy Chompers

- A) Use a timer to determine the number of speedy chomps you can in 30 seconds. With this experiment, you want to chew as fast as possible.

WARNING – tongues and cheeks have been known to suffer during this experiment. Please be careful as you do not want the memory of doing a science experiment and biting off your tongue or taking a huge chunk of skin out of the side of your cheek.

- B) Use a timer to keep track of time while you count how many official chomps you complete in 30 seconds
C) Record the results in the data table below

Trial	1	2	3	4	5	AVERAGE
Number of Chomps						

- D) Use the average from the data table above to now calculate speed (CPS) that you casually chomp gum. Round to the nearest tenth.

Speed = AVERAGE ÷ Time = CPS (Chomps Per Second)

Your AVERAGE Speed Chomping Speed = _____

1. Write a paragraph (4 to 6 complete sentences) to summarize the results of your experiments.



2. Are your results accurate and reliable? Why or why not?