

Name:

Chomper Challenge

Purpose: To introduce students to physics and speed

Hypothesis: Who in your lab group can chomp gum the fastest?

Safety: Don't choke, don't bite your tongue, don't drool

****READ ALL DIRECTIONS FOR EACH PART BEFORE STARTING!!****

Part 1:

- Get a piece of bubble gum
- Use a stopwatch to time 30 second intervals
- Count the number of chomps you can do in 30 seconds and record it in Table 1
- Repeat this 5 times
- Spit that gum out in the trash

Data Table 1-

Trial	Chomps	Time	Speed
1		:30	
2		:30	
3		:30	
4		:30	
5		:30	

Round speeds to the nearest hundredth!

$$\text{Speed} = \frac{\# \text{ of chomps}}{\text{time}}$$

Part 2:

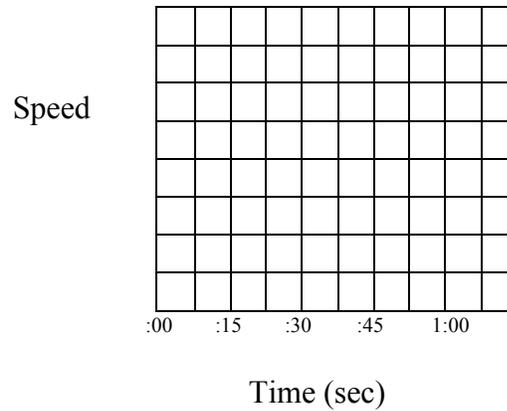
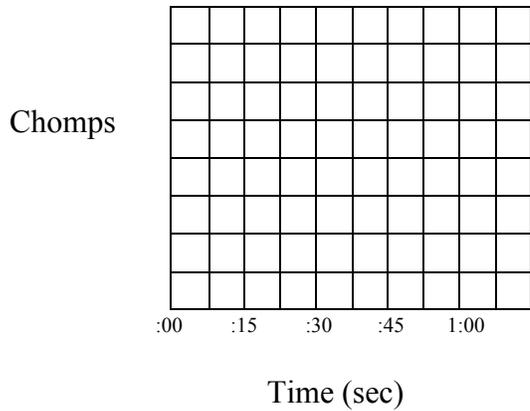
- Get a new piece of bubble gum
- Using a stopwatch to time 60 seconds start chewing
- Have a partner count the number of chomps you can do, record the number at 20 seconds, 40 seconds & 60 seconds (This is for speed! Chew fast!)
- Record the number of chomps data in table 2

Data Table 2-

Time	Chomps	Speed
20s		
40s		
60s		

Round speeds to the nearest hundredth!

- Using the numbers from table 2 make two graphs below



Now finish calculating the speed for data tables, compare chomp speed with your lab group members to see who was the fastest and answer the following questions:

1. What was your average speed from part 1?
2. What was your average speed from part 2?
3. Look at your average speed from part 1 and part 2, are they the same, did you maintain a constant rate? Why or why not?
4. Write a paragraph to summarize the results of your experiment.
5. Are your results from this lab reliable and accurate? Why do you think this?
6. What other experiments could we do with bubble gum?