Student Activity:
Speed of the Buggy

Name _____
Date _____
Period _____ Table _____

Measuring the Speed of the Buggy

(students may use remote controlled vehicles instead of the buggy – full throttle)

Procedure:

1. Make a metric measuring tape: using a meter stick measure 12 meters of string; place masking tape every meter and label each starting with 1 and ending with 12.
   (Do not let the "measuring tape" get tangled!)
2. Outside, find a level place (concrete) and place your measuring tape in a straight line.
3. Place your buggy at the beginning of the string and set it in motion. (you may wish to practice)
4. One student will call out the word "time" every 2 seconds. Other students will place an index card on the ground where the buggy passes when they hear the word "time".
5. Using the metric measuring tape, measure the distance between the index cards (intervals) and record the results in the table below.
6. Repeat procedures 3 through 5 for two more trials.

Data Chart: (add more frames to the chart if needed for additional timing)

	2 seconds	4 seconds	6 seconds	8 seconds	10 seconds	12 seconds
Trial #1	cm	cm	cm	cm	cm	cm
Trial # 2	cm	cm	cm	cm	cm	cm
Trial # 3	cm	cm	cm	cm	cm	cm

Calculations, Observations and Conclusions:

1) Calculate the speed for each Trial for the highest seconds recorded: Trial # 1 _____cm/sec

Trial # 2 _____cm/sec

Trial # 3 _____cm/sec

Average Speed: _____cm/sec

2) Looking at the data chart, where was the greatest distance recorded for the interval? _____ sec

3) Why do you think this happened? _____

4) Looking at the data chart, where was the least distance recorded for the interval? _____ sec

5) Why do you think this happened? _____

6) According to the data, did the dune buggy remain at constant speed? _____

7) Write a statement that explains the relationship between the distance of the index cards and speed,
_____

8) On the back of this paper, choose a Trail # and draw a Slope Graph for 0 to 10 seconds
(Reminder: distance is y axis; time is x axis)

Choose a Trial # and draws a Slope Graph for 0 to 10 seconds