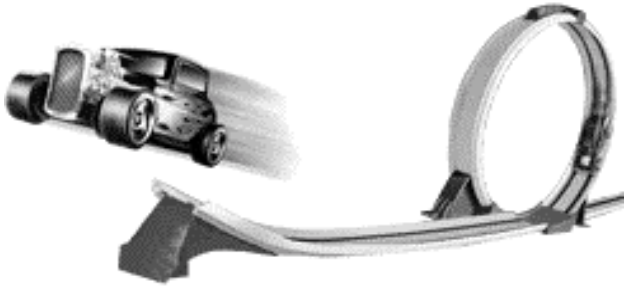
Hot Wheels Lab

Name _____

Materials:

- Hot Wheel Track Set
- 4 Hot Wheels Cars
- Balance Scale
- Meter Stick
- Stopwatch
- Calculator



Procedure:

1) Working in groups of four record the name, color, length and weight of each of your 4 cars in the data tables below.

2) Hypothesize with your group which car you think will be the fastest and why.

Hypothesis: If _____ (independent variable)

_____

_____, then _____ (dependent variable)

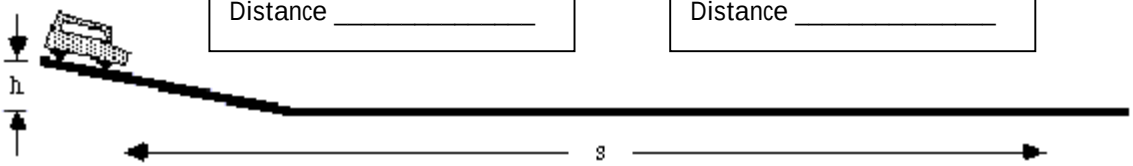
_____

3) Set up track as demonstrated by your teacher. Have one person release a car at the top of the track while one person at the bottom of the track uses the stopwatch, one person catches the car, and the fourth person records the times. Rotate jobs after each person has timed his or her car.

4) To calculate the average time for each car add the three times together and divide by three.

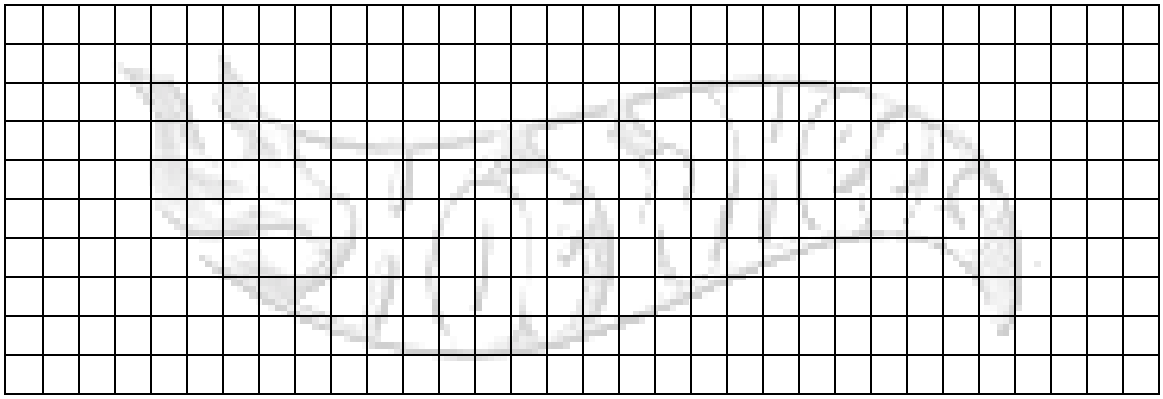
Car #1: _____
Color: _____
Length: _____
Weight: _____grams
Trial Time #1 _____
Trial Time #2 _____
Trial Time #3 _____
Average Time _____
Distance _____

Car #2: _____
Color: _____
Length: _____
Weight: _____grams
Trial Time #1 _____
Trial Time #2 _____
Trial Time #3 _____
Average Time _____
Distance _____



Car #3: _____	Car #4: _____
Color: _____	Color: _____
Length: _____	Length: _____
Weight: _____grams	Weight: _____grams
Trial Time #1 _____	Trial Time #1 _____
Trial Time #2 _____	Trial Time #2 _____
Trial Time #3 _____	Trial Time #3 _____
Average Time _____	Average Time _____
Distance _____	Distance _____

5) Using the grid below make a bar graph to show the average times of all 4 cars.



6) Discus your conclusions. Was your hypothesis correct? Why or why not?

_____
_____
_____
_____

7) Hypothesize which car you think will go the farthest and why.

Hypothesis: If _____ (independent variable)

_____

_____, then _____ (dependent variable)

_____

8) Get together with another group and join your track to theirs making one long track. Send each of the cars down and measure how far they go. Record the stopping distance in the appropriate data table for each car above.

9) Was your hypothesis correct? Why or why not?

_____

_____