

NAME(S) _____

How Fast is Your Car?

Background: Examine the roadway. Is there anything that will get in the way of your car?

Hypothesis: (How fast can your car travel the 5 meters?)

Experiment:

Time how long it takes your car to go from start to the finish.

Record Data:

Fill in the chart below. Record the time it took your car to reach the finish line for each trial.

TRIAL	Time (seconds)	Distance (meters)	Velocity (meters/second)	Notes
1		5 meters		
2		5 meters		
3		5 meters		
4		5 meters		
5		5 meters		
Average Velocity				

Analyze Your Results

- Calculate Velocity - **VELOCITY = $\frac{\text{Distance (meters)}}{\text{Time (seconds)}}$**

NAME(S) _____

Examine your results and calculations from your first five trials. What do you think made your car go fast or slow? Things like weight, friction, and wind drag all influence a vehicle's performance. Do you think the angle of your solar panel makes a difference? Name at least three ways you could adjust your car that might improve its performance, make those adjustments.

Round Two:

Hypothesis: (Now with your adjustments how fast can your car travel the 5 meters?)

Experiment:

Time how long it takes your car to go from start to the finish.

Record Data:

Fill in the chart below. Record the time it took your car to reach the finish line for each trial.

TRIAL	Time (seconds)	Distance (meters)	Velocity (meters/second)	NOTES
6		5 meters		
7		5 meters		
8		5 meters		
9		5 meters		
10		5 meters		
Average Velocity				

