

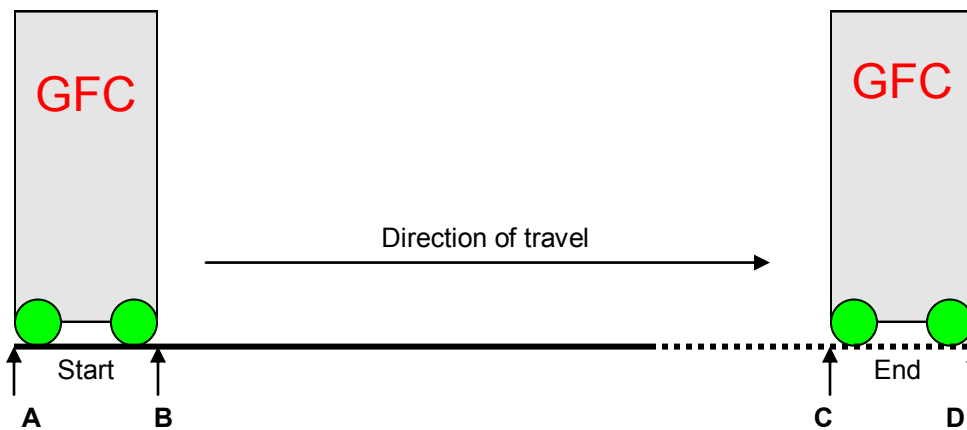
# Gravity Power Cars GFC in Motion Student Inquiry Sheet



Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Investigation #6: How do you measure the motion of the GFC?

You can measure **distance traveled (cm)**, **time of moving in seconds (s)**, and **average speed or velocity (cm/s)**. To do these tests, you want to use just enough washers to make the car move well and lift them just as high as needed to travel 50 to 100 cm. Different groups may want to use different wheels, weights, and heights. Then compare results between groups.



### Measure velocity or speed:

Find the average speed of the GFC moving from A to C or B to D. To calculate the average speed just divide the distance traveled by the time of travel.

Distance traveled (cm)	Time of travel (s)	Average Speed (cm/s)
Trial 1 _____	Trial 1 _____	Trial 1 _____
Trial 2 _____	Trial 2 _____	Trial 2 _____
Trial 3 _____	Trial 3 _____	Trial 3 _____
<b>Average:</b> _____	<b>Average:</b> _____	<b>Average:</b> _____

**Note:** Speed measures how quickly an object moves a specific distance. Velocity measures the same thing but also tells the direction of motion. For example, if a GFC has a speed of 10 centimeters per second, the velocity would be 10 centimeters per second toward the classroom door (or what ever direction it was moving). These measurements can also be measured electronically if you have motion detector probe ware.

List some things you found out about the distance, time and speed of the GFC.



**Check  
Point**