

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## Speed, Velocity, and Acceleration Virtual Lab

Note: This worksheet is to be used the virtual lab: [http://www.glencoe.com/sites/common\\_assets/science/virtual\\_labs/E12/E12.html](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E12/E12.html)

I. Complete the following questions before you begin:

1. Which challenge question are you answering? (It's the question near the timer on the simulation.) \_\_\_\_\_
2. Which three cars did you select? \_\_\_\_\_
3. Which one of the three cars do you predict will answer the challenge question? \_\_\_\_\_

II. Record your measurements and calculations in the table below:

| Car Color | Average Speed (m/s)<br>Given with each car | Time (seconds) | Distance: Average<br>Speed x Time<br>(meters) |
|-----------|--|----------------|---|
|           |  |                |   |
|           |  |                |   |
|           |  |                |   |

4. Which car actually answered the challenge question? How does the results compare with your prediction? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Does the fastest car always travel the farthest? Why or why not? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Does the car travelling the longest time always go the longest distance? Why or why not?  
\_\_\_\_\_
7. What real-world applications depend on the relationship between distance, average speed, and time? \_\_\_\_\_  
\_\_\_\_\_