

Name \_\_\_\_\_

Date \_\_\_\_\_

Hour \_\_\_\_\_

Purpose: To understand the relationship between velocity, distance, and time.

Procedure: Use the following web address to complete the 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)

1. Choose three of the five cars from the Car Set by clicking and dragging them to the starting line.
2. Answer Journal questions 1-3.
3. Use the data table and record each car's color, average speed, and time values. Apply the formula  $d=vt$  and use the calculator tool to determine the distance each car will travel.
4. Click the Go button and find out how far each car travels.
5. Answer Journal questions 4-7.
6. Click the reset button to display a new set of cars and a new Challenge question.
7. Click the reset button until you have answered three different Challenge questions.

Data tables and questions

Car Color	Average Speed m/s	Time (s)	$d=s \times t$ (m)

Journal questions

1. Which challenge question are you answering?
2. Which three color cars did you use?
3. Which one of your three cars do you predict will answer the challenge question?
4. Which car actually answered the challenge question? How does this result compare to your prediction?
5. Does the fastest car always travel the farthest distance? Why or why not?
6. Does the car traveling the longest time always travel the greatest distance? Why or why not?
7. What real world applications depend upon the relationship between distance, speed, and time?

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