

## Chapter 4 Review Guide

1. When is an object in motion?
2. How fast does the Earth move as it orbits the Sun?
3. What is a reference point?
4. What does SI mean in English?
5. What is the basic SI unit of length?
6. What is the formula for calculating speed?
7. If a car travels 70 km in 1.75 h, what is its speed?
8. What do you need to know to describe the velocity of an object?
9. When you plot distance against time on graph, what are you graphing?
10. When you graph motion, what does the steepness of the line show?
11. When graphing motion, what does a straight line show? What does a horizontal line show?
12. What formula is used to calculate distance?
13. What are the pieces that make up the upper layer of Earth called?
14. How long ago do some scientists believe that Earth's continents were connected?
15. What is special about a conversion factor?

16. What is acceleration?

17. What are the two components that can be changing for an object to be accelerating?

18. What are the three ways these two components can change?

19. What is the formula for calculating acceleration?

20. Suppose you are traveling in a car at 30 mph. Exactly 2 minutes later, the speedometer reads 60 mph. What is your acceleration?

21. If you plot speed versus time on a graph, what are you graphing?

22. When graphing acceleration, what does a straight line show? What would a horizontal line show?