

**Directed Reading B** *continued*

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9. One of the ways to express speed is by using the SI unit of \_\_\_\_\_.

10. Name two other units often used for expressing speed.

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11. What is the equation for average speed?

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12. Speed can be represented on a graph where \_\_\_\_\_ is plotted on the  $x$ -axis and position of the object is plotted on the  $y$ -axis.

13. In the graph in your book illustrating the speed of a dog walking beside a fence, why does the distance traveled in a given second vary?

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**VELOCITY: DIRECTION MATTERS**

14. How could two birds flying at the same speed from the same starting point end up at different destinations?

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15. What is the difference between velocity and speed?

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16. What can change when an object's velocity changes?

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**ACCELERATION**

17. Acceleration is the rate at which \_\_\_\_\_ changes over time.

18. The units of \_\_\_\_\_ are the units of velocity divided by a unit of time.

**Directed Reading B** *continued*

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**19.** A common unit for acceleration is meters per second per \_\_\_\_\_.

**20.** An increase in speed is sometimes called \_\_\_\_\_ acceleration.

**21.** What are the two terms sometimes used to describe a decrease in speed?

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**22.** Why is an object traveling in a circle considered to be accelerating?

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**23.** The type of acceleration that occurs when an object travels at a constant speed in circular motion is called \_\_\_\_\_ acceleration.

**24.** Acceleration can be shown on a graph of speed versus \_\_\_\_\_.

**25.** In the graph in your book showing the acceleration of a radio-controlled toy car over 10 s, how can you tell acceleration is positive from 0 s to 5 s?

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**26.** In the same figure, how can you tell that the speed of the radio-controlled car is constant between 5 s and 7 s?

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