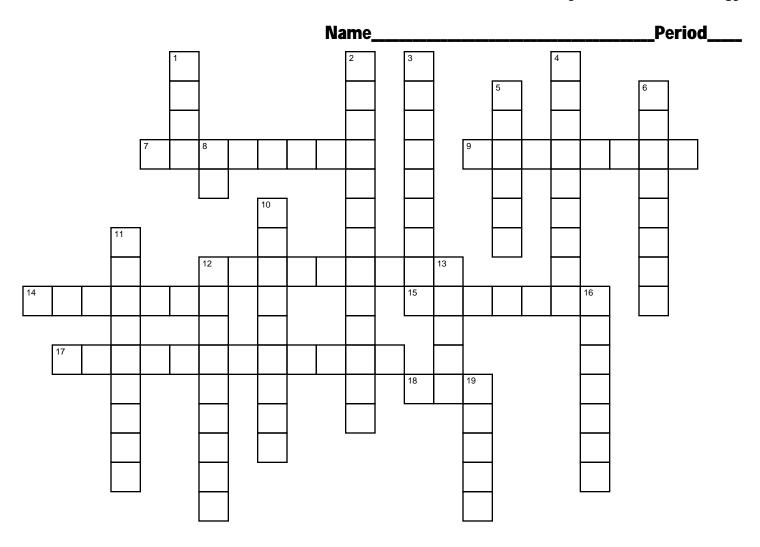
## **Chapter 4 Reading Guide: Motion**

**Physical Science: Energy** 



## **Across**

- 7. speed that stays the same is \_\_ speed
- 9. if an object falls with only the force of gravity acting on it, it is in \_\_\_\_.
- 12. what happens to speed if acceleration is negative?
- 14. total distance divided by total time is \_\_\_ speed
- 15. acceleration can be \_\_\_ down.
- 17. rate at which velocity changes
- 18. does a car accelerate if it goes around a corner at constanct speed?

## Down

- 1. if an object is moving at constant speed is has an acceleration of \_\_\_.
- 2. speed of a moving object at any moment is \_\_\_ speed
- 3. graphs show relationships between \_\_\_
- 4. acceleration can be a change in \_\_\_.
- 5. acceleration on a position vs. time graph is a \_\_\_ line.
- 6. speed and direction
- 8. if an airplane travels in a straight line at constant speed, is it accelerating?
- 10. what happens to the speed of an object that is dropped in free fall?
- 11. the difference between speed and velocity is that velocity includes \_\_\_

## **Down**

- 12. on a position vs. time graph, time is an independent variable and distance is a \_\_\_ variable
- 13. ratio of the rise over the run of a line on a graph
- 16. on Earth, the value of 9.8 m/s/s is called the acceleration due to \_\_\_.
- 19. how quickly an object moves, calculated by dividing distance travelled by the time it takes