Name Date Class

Directed Reading for Content Mastery

Section 2 ▪ Acceleration
Section 3 ▪ Motion and Forces

Directions: *Complete the paragraph by filling in the blanks using the terms listed below.*

acceleration	**velocity**	**direction**
negative	**positive**	**time**

Acceleration occurs when an object's 1. _____ changes. When an object speeds up, it has 2. _____ acceleration. When an object's final velocity is less than its initial velocity, however, it has 3. _____ acceleration. An object that is changing 4. _____ is accelerating, even if its speed remains the same. Acceleration can be calculated by dividing the change in velocity by the 5. _____ interval in which the change occurred. The SI unit of 6. _____ is m/s^2.

Directions: *Match the terms in Column II with the descriptions in Column I. Write the letter of the correct term in the blank at the left.*

Column I	Column II
_____ 7. result in a net force of zero	a. force
_____ 8. force that prevents two forces in contact from sliding past each other	b. net force
_____ 9. cause an object's velocity to change	c. unbalanced forces
_____ 10. a push or pull that can change an object's motion	d. balanced forces
_____ 11. force that acts in the opposite direction to the motion of a surface sliding on another surface	e. sliding friction
_____ 12. the combined force on an object	f. static friction

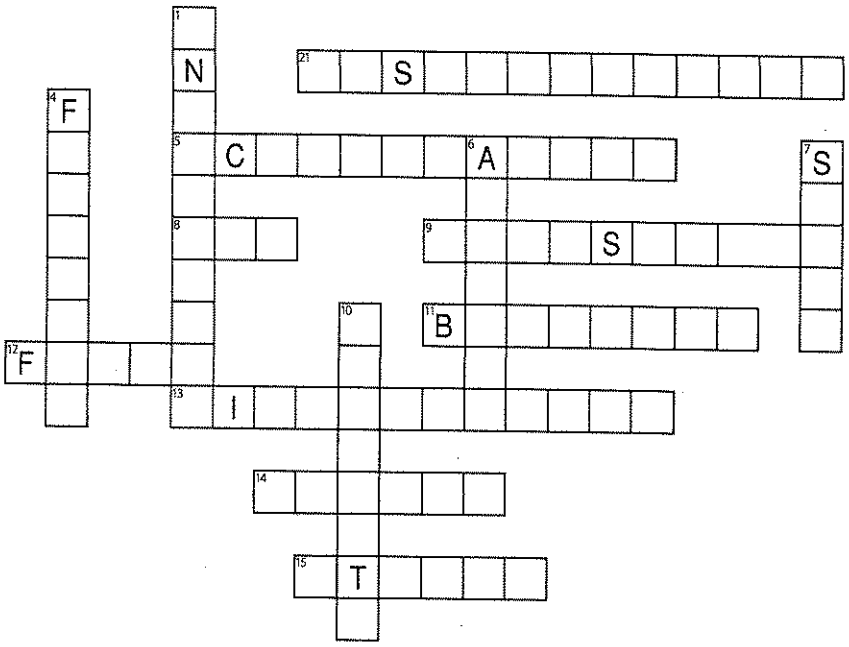
Meeting Individual Needs

Name Date Class

Directed Reading for Content Mastery

Key Terms
Motion, Acceleration, and Forces

Directions: *Use the clues below to complete the crossword puzzle.*



Across

2. Speed at a given instant in time is _____ speed.
5. change in velocity per unit time
8. and 9. _____ _____ causes objects to fall with different accelerations and speeds (two words)
11. forces on an object that are equal in strength but opposite in direction
12. a push or pull that is exerted on an object
13. the distance and direction of an object's final position from its initial position
14. Acceleration is a _____ because it has a size and a direction.
15. Both _____ and sliding friction are forces that oppose the motion of two objects that are in contact.

Down

1. type of force that can change the velocity of an object at rest or in motion
3. Equal, but opposite, forces are said to result in a(n) _____ force of zero.
4. force due to the microwelds that form between two surfaces in contact
6. Total distance traveled divided by the total travel time is _____ speed.
7. distance an object travels per unit time
10. includes both the speed of the object and the direction it is moving

Meeting Individual Needs