

SCA Science 6 – Study Guide

Chapter 9

Name: Key

I. Fill in the Blank: Write the correct answer in the blank

| | | | | |
|--------------|----------|----------|--------|----------|
| acceleration | friction | momentum | motion | velocity |
|--------------|----------|----------|--------|----------|

- motion 1. the change of an object's position
- friction 2. a force that keeps objects from moving against other objects
- momentum 3. determined by the mass and velocity of an object
- velocity 4. the speed of a moving object in a given direction
- acceleration 5. occurs whenever an object speeds up, slows down, or changes direction
- work 6. When a force moves an object a certain distance, ____ is done.
- machine 7. Any object that makes work easier is called a ____.
- inclined planes 8. Wedges and screws are two simple machines that actually consist of ____.
- mechanical 9. The decrease in effort that is needed to move an object is called a ____ advantage.

II. Identification: Write the letter of the correct answer. Answers may be used more than once.

- A. Force is equal to the mass of an object and its acceleration.
- B. When one object exerts a force on another object, the second object reacts by exerting an equal force back on the first object.
- C. An object at rest tends to stay at rest, and an object in motion tends to stay in motion with the same direction and speed.

C 10. First Law of Motion

A 11. Second Law of Motion

B 12. Third Law of Motion

A 13. Ruth likes to play softball and go bowling. She uses less force to throw a softball than she uses when she rolls a bowling ball.

C 14. Dad slammed on the brakes when a ball bounced out in front of our car. My sister's doll that had been on the back seat ended up on the floor.

III. Matching: Write the letter of the correct answer

| | | |
|-------------------|----------|-------------------|
| A. inclined plane | B. lever | C. pully |
| D. screw | E. wedge | F. wheel and axel |

F 15. doorknob

C 16. flagpole

E 17. knife blade

A 18. ramp

D 19. jar lid

B 20. broom