

Skills Worksheet

Directed Reading B

Section: Friction: A Force That Opposes Motion (pp. 350–355)

1. What type of force is needed to change the velocity of objects?

2. The force that opposes motion between two surfaces that are in contact is called _____.

THE SOURCE OF FRICTION

3. What are two factors that affect the magnitude of friction between two surfaces?

4. What happens to friction if the force pushing surfaces together increases?

5. Objects that weigh less exert _____ downward force than objects that weigh more.

6. Friction is usually _____ between materials that have rough surfaces compared to the amount of friction between smooth surfaces.

TYPES OF FRICTION

_____ 7. What are the two main types of friction?

- a. smooth and rough
- b. kinetic and static
- c. light and heavy
- d. moving and nonmoving

_____ 8. What is kinetic friction?

- a. friction between two heavy objects
- b. friction between two rough surfaces
- c. friction between two moving surfaces
- d. friction between two smooth surfaces

9. Two types of kinetic friction are _____ and

_____.

Directed Reading B *continued*

10. Which type of kinetic friction is usually greater?

11. What is one example of the use of sliding kinetic friction?

12. What is one example of the use of rolling kinetic friction?

13. When force applied to an object does not cause the object to move,
_____ friction occurs.

14. As soon as an object starts moving, what replaces static friction?

FRICITION: HARMFUL AND HELPFUL

15. Friction by wind and water can cause _____.

16. What is a substance put on surfaces to reduce the friction between the surfaces called?

17. Name three ways friction can be reduced.

18. What are two ways friction can be increased?
