

CHAPTER REVIEW

Electricity

I. Vocabulary Review

In the blank, write the word or words that best complete the sentence.

1. Charges can move freely in a(n) _____.
2. Charges CANNOT move freely in a(n) _____.
3. The amount of electrical energy changed to thermal energy and light is a measure of a material's _____.
4. An electrical _____ is a concentration of electricity.
5. The rate that electric charge flows past a point in a circuit is the _____.
6. Volts measure electric _____.
7. Charge flows in a closed path called a(n) _____.

II. Concept Review

If the underscored word or phrase makes the sentence true, write "TRUE" in the space provided. If the underscored word or phrase makes the sentence false, write the correct term or phrase in the space provided.

- _____ 8. Tungsten wire is used in light bulbs because it is a conductor with low resistance.
- _____ 9. If two copper wires are the same length but different thicknesses, the thicker wire has more resistance.
- _____ 10. When you pull cellophane tape off a desk, you cause the tape to have an electrical charge.
- _____ 11. Lightning jumps to the ground because of a buildup of static charge.
- _____ 12. If a glass rod is rubbed with silk, it will repel uncharged bits of paper confetti.

Answer the following questions in complete sentences.

13. Why does a toaster draw a lot of current? _____
- _____
- _____
14. Explain what happens to the charges in a circuit if you remove the battery. _____
- _____
- _____

Chapter Review 1 (continued)

15. What is the relationship among current, resistance, and potential difference? _____

16. Why do small bits of paper jump toward a plastic comb after the comb has been rubbed with wool? _____

III. Skills/Process Review

Use Figure 1 to answer the following questions.

_____ 17. In the Find Out! on page 32, you discovered how charge flows from a battery through a light bulb. In Figure 1, the current will flow from _____.

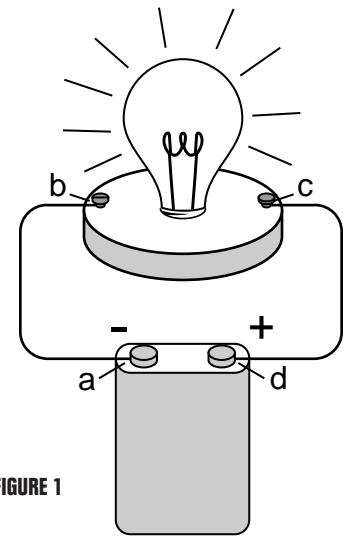
- a. point a to point b
- b. point a to point d
- c. point c to point d
- d. point d to point a

_____ 18. Increasing the potential difference between points a and d _____.

- a. increases the resistance
- b. increases the potential difference between points b and c
- c. decreases the current
- d. causes the bulb to become dimmer

_____ 19. Placing a longer, thinner wire between points c and d will _____.

- a. decrease the resistance
- b. increase the resistance
- c. decrease the current
- d. Answers b and c are both correct.



IV. EYV Review

20. Science and Society: Recycling Batteries Give several reasons why the Environmental Protection Agency should have regulations for the disposal of batteries. _____
