

# Science Keys

## Lesson Assessment

### Reviewing Main Ideas: True or False

Write T (True) or F (False) on the line before each sentence.

- T 1. All objects are made up of tiny bits of material that have electric charges.
- F 2. Most objects have positive charges.
- F 3. When two objects have the same charge, they attract each other.
- T 4. An electric charge may be either positive or negative.
- T 5. An electric current is a flow of negative charges.
- F 6. An electric circuit must have an opening for the electricity to enter through.
- T 7. A conductor is a substance that electric current easily passes through.
- F 8. A light bulb gives off light because the wire inside it is an insulator.
- T 9. Batteries and generators provide electric power.

### Applying Strategies: Cause and Effect

Use complete sentences to answer question 10.

10. You rub two balloons on your sleeve. When you hold each balloon by a string, they move away from each other. Explain why this happens.

Both balloons have negative charges. Objects with like charges repel (push away from) each other.

## Lesson 1 Assessment Teacher's Assessment Package

## Lesson Assessment

### Reviewing Main Ideas: True or False

Write T (True) or F (False) on the line before each sentence.

- T 1. Electric current flows only through a closed circuit.
- T 2. When you turn on a light or other electric appliance, you close a circuit.
- F 3. In a series circuit, each light or appliance has its own path for electricity.
- T 4. Most circuits in your home and school are parallel circuits.
- T 5. Electricity can kill or seriously injure you.
- F 6. It is safe to use electricity around water, because water is an insulator.
- F 7. A frayed electrical cord cannot start a fire.
- T 8. You should always unplug a hair dryer or iron when it is not in use.
- F 9. A safety power strip is used to increase the amount of electricity flowing into your computer.

### Applying Strategies: Cause and Effect

Use complete sentences to answer question 10.

10. Explain two ways that the unsafe use of electricity can cause harm.

Plugging too many appliances into one outlet can cause it to overheat, causing a fire. Using electricity in or near water can cause a shock.

## Lesson 2 Assessment Teacher's Assessment Package p. 82

## Lesson Assessment

### Reviewing Main Ideas: Matching Words and Meanings

Match each term with its meaning. Write the letter of the term on the line.

- |                                                                        |                      |
|------------------------------------------------------------------------|----------------------|
| <u>G</u> 1. an object that pulls iron and steel toward it              | a. repel             |
| <u>B</u> 2. the force around a magnet                                  | b. magnetism         |
| <u>E</u> 3. the area around a magnet where magnetic forces can be felt | c. lodestone         |
| <u>J</u> 4. that part of a magnet where magnetic forces are strongest  | d. northern lights   |
| <u>A</u> 5. to push away                                               | e. magnetic field    |
| <u>C</u> 6. a magnetic rock                                            | f. attract           |
| <u>H</u> 7. a small magnet that can turn freely                        | g. magnet            |
| <u>D</u> 8. lights in the sky caused by the earth's magnetic field     | h. compass           |
| <u>F</u> 9. to pull toward                                             | i. parallel circuits |
|                                                                        | j. poles             |

### Applying Strategies: Cause and Effect

Use complete sentences to answer question 10.

10. Explain why a compass can be used to find direction.

The earth is like a giant magnet, with a north and a south magnetic pole. A compass is a small magnet that can swing freely. When the compass needle is allowed to swing freely, it points toward Earth's magnetic poles.

## Lesson 3 Assessment Teacher's Assessment Package p. 83

## Lesson Assessment

### Reviewing Main Ideas: True or False

Write T (True) or F (False) on the line before each sentence.

- T 1. Electric current can be generated with magnets.
- F 2. The magnets inside electric generators are usually small enough to be turned by hand.
- T 3. Magnetism and electricity are closely linked.
- F 4. An electromagnet is created when electric current flows through a compass needle.
- F 5. Hans Christian Oersted discovered electricity.
- T 6. An electromagnet made of a coiled wire and a metal bolt is stronger than one made with a wire alone.
- T 7. Electromagnets can be turned off by opening an electric circuit.
- T 8. Telephones use electromagnets.
- F 9. Electric current causes a coiled wire to become an electric bell.

### Applying Strategies: Cause and Effect

Use complete sentences to answer question 10.

10. Explain how Hans Christian Oersted realized that electricity and magnetism are related.

Oersted noticed that when electric current flowed through a wire, a compass needle pointed toward the wire. This made him realize that electricity and magnetism are related.

## Lesson 4 Assessment Teacher's Assessment Package p. 84