

Post- Assessment

Concepts Assessed

Magnetism is a force that exerts a push or pull. Like poles of a magnet repel. Opposite poles of a magnet attract. A compass is an instrument that uses a freely moving magnetic needle to indicate direction. Static electricity is a build up of charge that can be released. A closed circuit is needed to light a bulb in a circuit. Switches open and close circuits. Metals conduct electricity. Electricity can be changed into heat, light, sound, or motion. Series circuits have one path for electricity to follow. Parallel circuits have more than one path for electricity to follow. Electromagnets can be made stronger by increasing the number of coils of wire.

Time 45 minutes

Materials Individual
Post-Assessment

Advance Preparation 1. Duplicate the Post-Assessment for each student.

Procedure:

1. Explain that this assessment is to help the teacher and the students tell what students have learned about magnetism and electricity.
2. Explain that you will use the information from this assessment to help determine how best to help students learn more about magnetism and electricity.

Magnetism and Electricity Post- Assessment

1. Magnetism is a force that _____.
 - a. pushes or pulls
 - b. freezes matter
 - c. expands and contracts
 - d. attracts wood

2. Choose the one that correctly describes magnetism.
 - a. Like poles of a magnet attract, while opposite poles repel.
 - b. Like poles of a magnet expand, while opposite poles contract.
 - c. Like poles of a magnet repel, while opposite poles attract.
 - d. Like poles of a magnet contract, while opposite poles expand.

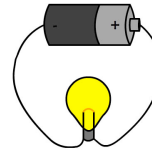
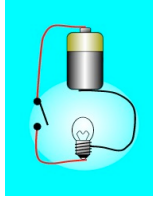
3. List all the uses of magnets that you know.

4. How does a compass work? A compass
 - a. uses a magnet to help us find which way gravity is pulling.
 - b. uses a freely moving magnetic needle to point out direction.
 - c. tells us something about north, south, east, or west forces.
 - d. tells us what time it is in different parts of the world.

5. What is the name for the type of electricity that happens when you drag your feet on the carpet and shock your friend?
 - a. Current electricity
 - b. Magnetic electricity
 - c. Simple electricity
 - d. Static electricity

6. What is the name for the type of electricity that happens when lightning strikes?
 - a. Simple electricity
 - b. Current electricity
 - c. Static electricity
 - d. Magnetic electricity

7. Circle the picture of the bulb that will light:



8. How does a light switch work? A switch
- a. expands and contracts the circuit.
 - b. attracts and repels the circuit.
 - c. opens and closes the circuit.
 - d. magnetizes the circuit.

9. Which of the following conducts electricity?
- a. Aluminum foil
 - b. Wood
 - c. Plastic
 - d. Rubber band

10. Circle all that are correct. Electricity can be transferred into
- a. Heat
 - b. Light
 - c. Sound
 - d. Motion

11. List all the uses of electricity that you know.

12. Which of the following describes a series circuit?
- a. More than one path for electricity to follow
 - b. One path for electricity to follow
 - c. Similar to conductors and insulators
 - d. Uses gravity to push and pull

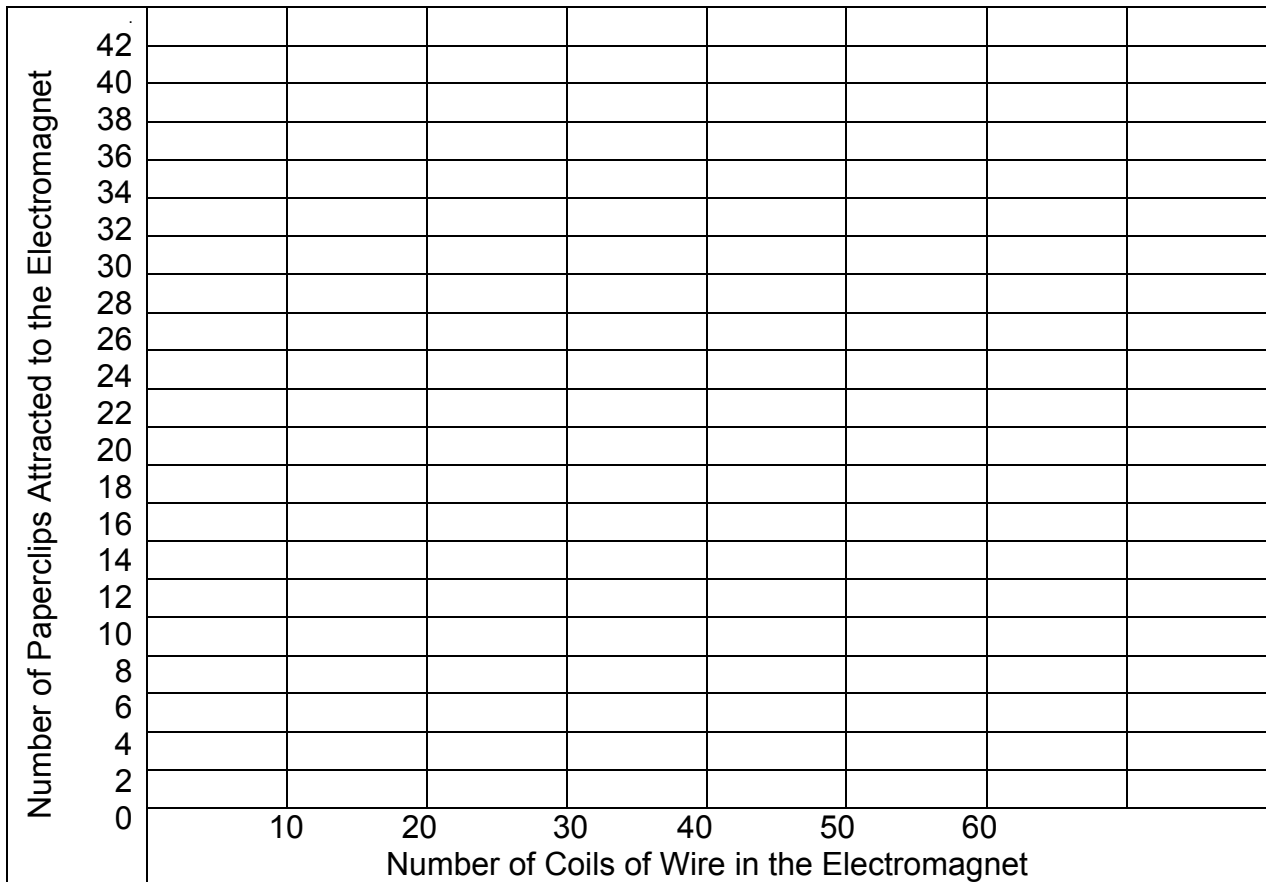
13. Circle all that describe a parallel circuit?
- a. More than one path for electricity to follow
 - b. One path for electricity to follow
 - c. Light stays lit if one bulb goes out
 - d. All bulbs go out if one bulb goes

14. Use the data in the chart to complete the graph below. What does the graph tell you about electromagnets?

| Number of Coils | Number of Paper Clips |
|-----------------|-----------------------|
| 20 | 10 |
| 30 | 16 |
| 40 | 21 |
| 50 | 32 |
| 60 | 40 |

Graph Title:

Number of coils of wire vs. strength of an electromagnet



Magnetism and Electricity Post Assessment Answer Key

1. Magnetism is a force that _____.

- a. pushes or pulls
- b. freezes matter
- c. expands and contracts
- d. attracts wood

2. Choose the one that correctly describes magnetism.

- a. Like poles of a magnet attract, while opposite poles repel.
- b. Like poles of a magnet expand, while opposite poles contract.
- c. Like poles of a magnet repel, while opposite poles attract.
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- a. uses a magnet to help us find which way gravity is pulling.
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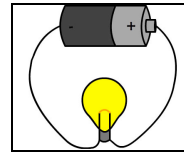
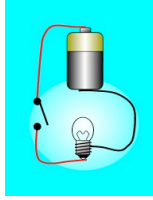
5. What is the name for the type of electricity that happens when you drag your feet on the carpet and shock your friend?

- a. Current electricity
- a. Magnetic electricity
- b. Simple electricity
- a. Static electricity

6. What is the name for the type of electricity that happens when lightning strikes?

- a. Simple electricity
- b. Current electricity
- c. Static electricity
- d. Magnetic electricity

7. Circle the picture of the bulb that will light:



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10. Circle all that are correct. Electricity can be transferred into

- a. Heat
- b. Light
- c. Sound
- d. Motion

11. List all the uses of electricity that you know.

14. Which of the following describes a series circuit?

- a. More than one path for electricity to follow
- b. One path for electricity to follow
- c. Similar to conductors and insulators
- d. Uses gravity to push and pull

15. Circle all that describe a parallel circuit?

- a. More than one path for electricity to follow
- b. One path for electricity to follow
- c. Light stays lit if one bulb goes out
- d. All bulbs go out if one bulb goes

14. Use the data in the chart to complete the graph below. What does the graph tell you about electromagnets? The coils of wire means the electromagnet is stronger because it picks up more paperclips.

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