Name: Date: Score: / 8

Electric Circuits: Learn and Practice

Voltage, current and resistance

Read each question. Circle the best answer.

💡 Electric Circuits

- Current is the flow of electric charge around a closed loop.
- Voltage is the push from a battery, and resistance slows the flow.
- More voltage gives more current, and more resistance gives less current.
- open the switch: loop broken: bulb goes out

1 What is resistance?

A. How much a part slows current

B. The speed of light C. The push from a battery

D. The mass of a wire

2 In a series circuit with 2 bulbs, one bulb burns out. What happens?

A. Nothing changes B. The battery recharges

C. The other gets brighter D. Both bulbs go out

3 🔋 What gives the push that moves charge in a circuit?

A. The plastic coating B. The battery

C. The switch cover D. The bulb

4 Which material is a good conductor for wires?

A. Rubber B. Wood C. Copper D. Glass

5 What is electric current?

A. A type of magnet B. A unit of length

C. The color of a wire

D. The flow of electric charge

6 In a parallel circuit, one bulb burns out. What happens to the others?

A. They get colder B. They start flashing

C. They all go out D. They stay lit

7 What does a switch do?

A. Stores water B. Measures mass

C. Makes energy D. Opens or closes the circuit

8 What does a circuit need for current to flow?

A. A complete closed loop B. A plastic wire

C. A broken loop D. No battery

✏️ Explain it! Write two facts you learned about electric circuits.

ANSWER KEY

Electric Circuits: Learn and Practice (answers)

Voltage, current and resistance

Read each question. Circle the best answer.

1 What is resistance?

A. How much a part slows current

B. The speed of light C. The push from a battery

D. The mass of a wire

Resistance makes it harder for current to flow.

2 In a series circuit with 2 bulbs, one bulb burns out. What happens?

A. Nothing changes B. The battery recharges

C. The other gets brighter **D. Both bulbs go out**

Series circuits have one path, so one break stops the whole loop.

3 🔋 What gives the push that moves charge in a circuit?

A. The plastic coating **B. The battery**

C. The switch cover D. The bulb

The battery provides the voltage that pushes charge around the circuit.

4 Which material is a good conductor for wires?

A. Rubber B. Wood **C. Copper** D. Glass

Copper lets electricity flow easily, so it is used in most wires.

5 What is electric current?

A. A type of magnet B. A unit of length

C. The color of a wire

D. The flow of electric charge

Current is moving charge, usually electrons, flowing through a conductor.

6 In a parallel circuit, one bulb burns out. What happens to the others?

A. They get colder B. They start flashing

C. They all go out **D. They stay lit**

Parallel circuits have separate paths, so the other bulbs still get current.

7 What does a switch do?

A. Stores water B. Measures mass

C. Makes energy **D. Opens or closes the circuit**

A switch breaks or completes the loop to turn things off or on.

8 What does a circuit need for current to flow?

A. A complete closed loop B. A plastic wire

C. A broken loop D. No battery

Charge can only flow when the path makes a full loop.