Electricity and Circuits

Name: _____ Date: _____ Grade: Grade 4

Part A: Fix the Sentence

Each sentence has an error. Rewrite it correctly on the line.

1. Fix the sentence:

Static electricity happens when protons move from one object to another by rubbing.

Rewrite: _____

2. Fix the sentence: *A switch must stay closed for a circuit to stop working and turn off a light.*

Rewrite: _____

3. Fix the sentence: *In a parallel circuit, if one light bulb burns out, all the other bulbs go out too.*

Rewrite: _____

Part B: Fill in the Blank

Write the missing word or number on each line.

1. When you shuffle your feet on carpet and then touch a doorknob, you feel a shock from _____ electricity.

2. Every circuit needs an energy source, wires, and a _____ such as a bulb or motor.

3. Objects with the same electrical charge _____ each other.

4. A _____ is a device that stores chemical energy and converts it to electrical energy.

Part C: Short Answer

Answer each question in one or two complete sentences.

1. Why does a balloon stick to a wall after you rub it on your hair?

_____

_____

2. Describe what happens inside a flashlight when you flip the switch to the ON position.

_____

_____

Part A: Fix the Sentence

Each sentence has an error. Rewrite it correctly on the line.

1. Fix the sentence:

Static electricity happens when protons move from one object to another by rubbing.

Rewrite: Static electricity happens when electrons move from one object to another by rubbing, causing one object to become negatively charged and the other positively charged.

2. Fix the sentence: *A switch must stay closed for a circuit to stop working and turn off a light.*

Rewrite: A switch must be opened to break the circuit and turn off a light; closing the switch allows electricity to flow again.

3. Fix the sentence: *In a parallel circuit, if one light bulb burns out, all the other bulbs go out too.*

Rewrite: In a parallel circuit, if one light bulb burns out, the other bulbs stay on because each bulb has its own separate path for electricity.

Part B: Fill in the Blank

Write the missing word or number on each line.

1. When you shuffle your feet on carpet and then touch a doorknob, you feel a shock from **static** electricity.

2. Every circuit needs an energy source, wires, and a **load** such as a bulb or motor.

3. Objects with the same electrical charge **repel** each other.

4. A **battery** is a device that stores chemical energy and converts it to electrical energy.

Part C: Short Answer

Answer each question in one or two complete sentences.

1. Why does a balloon stick to a wall after you rub it on your hair?

> *Rubbing the balloon on your hair transfers electrons to the balloon, giving it a negative charge. The charged balloon attracts the positive charges in the wall, which makes it stick.*