Electricity and Circuits

Name: _____ Date: _____ Grade: Grade 4

Part A: Multiple Choice

Circle the best answer for each question.

1. You rub a balloon on a wool sweater. The balloon gains extra electrons. What charge does the balloon now have?

- A) positive
- B) negative
- C) neutral
- D) no charge at all

2. Which action would be the MOST dangerous around electricity?

- A) turning off a light switch before changing a bulb
- B) using a plug with a plastic handle
- C) touching a frayed cord with wet hands
- D) unplugging a device by pulling the plug

3. A student connects a battery, a switch, and two bulbs in series. She opens the switch. What happens?

- A) only the first bulb turns off
- B) only the second bulb turns off
- C) both bulbs turn off
- D) both bulbs get brighter

4. Lightning rods are placed on tall buildings. Why are they made of metal?

- A) metal is a good insulator that blocks lightning
- B) metal is shiny so lightning can see it
- C) metal is a good conductor that safely carries the charge to the ground
- D) metal is lightweight and easy to attach

Part B: Fill in the Blank

Write the correct answer on each line.

1. A material through which electricity cannot flow easily is called an _____.

2. Static electricity is caused by an imbalance of positive and _____ charges on an object.

3. A grounding wire carries excess electricity safely into the _____.

4. When you walk across carpet in socks, your body builds up a _____ charge.

5. The three-prong plug on some appliances includes a _____ pin for safety.

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Part B: Fill in the Blank

Write the correct answer on each line.

1. A material through which electricity cannot flow easily is called an **insulator**.

2. Static electricity is caused by an imbalance of positive and **negative** charges on an object.

3. A grounding wire carries excess electricity safely into the **ground**.

4. When you walk across carpet in socks, your body builds up a **static** charge.

5. The three-prong plug on some appliances includes a **grounding** pin for safety.