Name:_____ Date:_____

1. Wanda's dad wired new lights for her playroom. When he thought everything was connected correctly, he turned on the switch and nothing happened. What could be the problem?

A. He put too many lights and switches in the circuit.
B. He needed to connect more batteries to the circuit
C. He made a mistake that caused an open circuit.
D. He should have wired the circuit in parallel.

---

2. When materials combine to form new compounds it is a chemical change. Which example is a chemical change?

A. baking powder fizzing
B. water boiling
C. ice melting
D. sugar cube dissolving

---

3. Mark is observing a burning candle. He notices that the candle wax makes a pool and dribbles down the side of the candle, where it hardens again. The candle wax has undergone

A. a physical change.
B. a chemical change.
C. a physical and a chemical change.
D. the formation of a new substance.

---

4. Which of these is a conductor?

A. a short length of string
B. a plastic drinking straw
C. a piece of aluminum foil
D. a piece of chalkboard chalk

---

5. Toni's class grows sugar crystals. Her teacher asks each student to sketch the shape of the sugar crystals. What will help Toni see the shape of the crystals?

A. a satellite
B. a telescope
C. a magnifying glass
D. a pair of binoculars

6.

Static electricity can be built up by

A. clothes spinning around in a dryer.
B. a battery and a light bulb.
C. plugging in an iron.
D. a glass of water.

7.

If you took a woolen cloth and rubbed it briskly over your hair, your hair would stand on ends.
What has been created?

A. insulator
B. lightning
C. chemical change
D. static electricity

8.

Why does plugging in and turning on a hair dryer make it operate?

A. electrons have a complete circuit to travel.
B. light energy can be converted into heat and wind.
C. heat energy can be transferred from a power station.
D. the flow of electricity is now stopped and can be contained.

9.

Two students design a circuit that includes a switch, a battery and light bulb all directly connected by wires. Before flipping the switch, what could the students do to BEST ensure that it will work?

A. clean the wires
B. check the brightness of the bulb
C. reverse the direction of the wires
D. make sure there is a complete path

10.

A closed circuit is a(n)

A. switch.
B. battery.
C. blocked path.
D. free flowing path.

Answer Key

1. C) He made a mistake that caused an open circuit.

2. A) baking powder fizzing

3. A) a physical change.

4. C) a piece of aluminum foil

5. C) a magnifying glass

6. A) clothes spinning around in a dryer.

7. D) static electricity

8. A) electrons have a complete circuit to travel.

9. D) make sure there is a complete path

10. D) free flowing path.