



# Understanding Electricity and Electrical Safety

## Pre/Post Test

*Directions: Circle the correct answer.*

- 1. Why is it so dangerous to touch a power line?**  
a) you might set off alarms  
b) the voltage is strong enough to injure or kill you  
c) you will stop the electrical flow  
d) the power line will blow up
- 2. A complete circuit is**  
a) a straight path for electricity  
b) when the flow of electricity is stopped  
c) two parallel paths for electricity  
d) like a circle where the electricity travels along a path that takes it back to where it started
- 3. Why should you never experiment with the electricity that comes from a wall outlet?**  
a) you might damage a nearby power plant  
b) you might break the outlet  
c) you might be seriously injured or killed  
d) the current is too weak
- 4. Two examples of good conductors are**  
a) metal and water    b) plastic and rubber    c) water and glass    d) air and plastic
- 5. An insulator is**  
a) something that electricity can easily move through  
b) something that does not allow electricity to easily pass through  
c) a special type of metal  
d) warm water
- 6. Why is a short circuit dangerous?**  
a) more electricity flows through it  
b) the electricity moves faster  
c) the wires are too short  
d) it could cause a fire
- 7. True or false? Fuses and circuit breakers protect our home electrical systems by turning off the power when a circuit gets too hot.**  
a) True    b) False
- 8. Which of the following is an example of a dangerous electrical situation in a home?**  
a) electric cords with bare wire showing  
b) overloaded outlets  
c) electrical cords running under furniture  
d) all of the above
- 9. An electromagnet is**  
a) a giant magnet  
b) a very strong electrical particle  
c) a strong electron  
d) when electricity travels through a piece of metal, and it becomes magnetized
- 10. Why is it important to be careful around electricity?**  
a) our bodies conduct electricity  
b) you might get shocked or electrocuted  
c) you could be seriously injured or killed  
d) a, b, and c

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## **Answer Key**

*Information that relates to each question can be found on the pages listed below.*

- 1. b) the voltage is strong enough to injure or kill you. Page 4*
- 2. d) like a circle where the electricity travels along a path that takes it back to where it started. Page 5*
- 3. c) you might be seriously injured or killed. Page 6*
- 4. a) metal and water. Page 7*
- 5. b) something that does not allow electricity to easily pass through. Page 7*
- 6. d) it could cause a fire. Page 9*
- 7. a) True. Fuses and circuit breakers protect our home electrical systems by turning off the power when a circuit gets too hot. Page 13*
- 8. d) all of the above. Page 15*
- 9. d) when electricity travels through a piece of metal and it becomes magnetized. Page 12*
- 10. d) a, b, and c. Page 4, 6, and 7*