Name:_____

Parent Signature_____

Unit 10 Study Guide

Directions: Draw a line from each vocabulary word to it's definition or hint.

1. Electric motor	The buildup of electric charge on something
2. Static electricity	If copper wire is attached to the positive and negative ends of a battery, this would be the effect
3. Electric current	A circuit with a battery, a switch, three lightbulbs, and more than one path for energy to flow would be considered this.
4. Electromagnet	A machine the changes electrical energy into energy of motion
5. Parallel circuit	A device in which current produces magnetism

Directions: Write the correct answer

6. If you were to rub a comb with wool and held it near bits of paper, what would happen?

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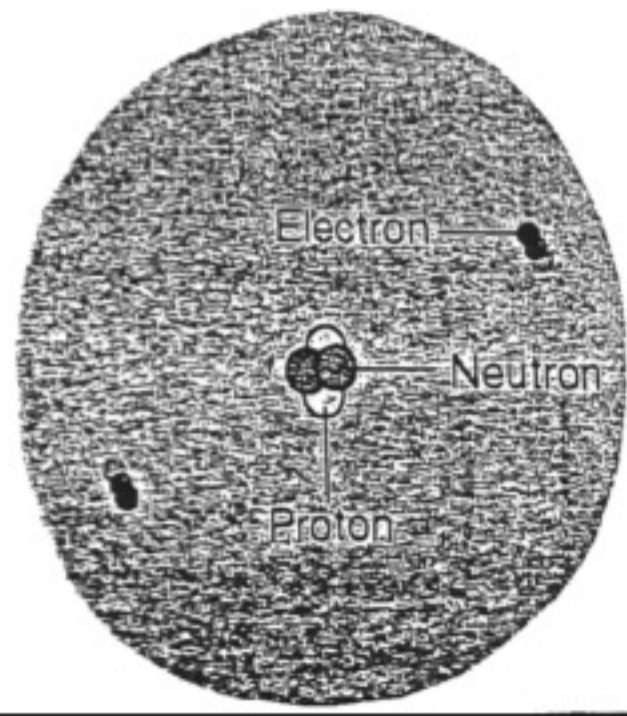
7. What would be the electric charge of the following atom?



8. If the previous picture lost an electron, what would the new electric charge be?

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9. What will happen if two objects, such as balloons, with negative charges come near one another?

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10. If a balloon is rubs with a wool cloth, what will happen if it is held near a wall and why?

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11. Imagine you hung two balloons by string close to one another but they are not touching. After a while you realize they are beginning to pull together. Do you think the balloons gained opposite charges or both gained a positive charge?

_____

12. What is the purpose of a battery in a circuit?

_____

13. If you were to replace a metal switch with a wooden switch, would your lightbulb light up? _____

14. If a parallel circuit has three lights bulbs and one of the light bulbs burn out, what will happen, if anything, to the other two lightbulbs.

_____

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15. What types of energy transfer does a blowdryer with a motor have?

16. If glass on your TV has a positive charge, why do you think your TV would become dusty before other furniture?

17. Imagine if you were to hang three balloons from string. You give the first balloon a positive charge and the second balloon a negative charge. You do not give the last balloon a charge. Explain what would happen to each balloon if you held a stick with a positive charge up to them.

18. What is the difference between a parallel circuit and a series circuit?

19. How are generators and electromagnets similar? How are they different?