

Quiz Sheet: Chapter 17 Electricity

1. Name the three particles found in an atom and provide their charge.	2. Draw an example of a parallel circuit?	3. What are the two types of circuits?	4. A car has a 12 volt system. The headlights are on a 10 amps circuit. How much resistance do they have?
5. A refrigerator uses a current of 0.62 A and a voltage of 116 V. How much power does the refrigerator use?	6. What is an advantage of using series circuits?	7. How do electrons flow in a typical battery?	8. What is a disadvantage to using series circuits?
9. What are the two main kinds of electric current?	10. An electric mixer draws 200.0 W of power. If the mixer is plugged into an outlet across a voltage of 115 V, what current is in the mixer's circuit?	11. _____ is the voltage difference in potential between two points in a circuit. Also called voltage.	12. What is a disadvantage to using parallel circuits?
13. Explain the interaction between two like charges. Explain the interaction between two unlike charges.	14. _____ the rate at which charge (usually electrons) passes a given point.	15. Explain what happens when different materials rub together.	16. Materials that allow electrons to flow through them are called _____. Provide one example.
17. What kind of material has properties of both insulators and conductors? They are found in many new devices.	18. Describe the differences in resistance in a conductor and an insulator.	19. The attraction or repulsion on a charged particle that is due to an electric field is called _____.	20. What kind of materials do not allow the flow of electrons through them? Provide one example.
21. What is the difference between an open circuit and a closed circuit?	22. A _____ is a model of an electric circuit with standard symbols for the electrical devices.	23. Electrochemical cells contain electrolyte and two electrodes. Describe the electrolyte.	24. What are the units for Current?
25. What would the equation look like if you are trying to figure out current when using Ohm's Law?	26. What surrounds any charged object?	27. A CD player has a current of 5 amps flowing through it. If the CD player uses 40 watts of power, what is the voltage of the CD player's battery?	28. What is resistance?
29. Draw the symbols for a light bulb.	30. Draw the symbols for an open switch and a closed switch.	31. What is the unit for Voltage?	32. The rate at which electricity does work or provides energy is called?
33. If an object has a negative charge, in what direction does the force move?	34. Buildup of excess negative charge on an object is called?	35. When a positive charge is placed near a negative charge, what happens to the positive charge?	36. Draw an image that represents a battery on a schematic diagram.

37. If I want to increase the power in any device, what do I need to do?	38. What charge do most atoms want to be?	39. What is the unit for Resistance?	40. What is one way to increase resistance in a circuit?
41. What is the unit for Electrical Power?	42. Draw an example of resistor?	43. If you added a resistor to a circuit, how does that affect the current?	44. What does voltage do within a circuit?
45. Draw a schematic diagram with the following items, in a series circuit and makes sure to label it. 1. battery 2. open switch 3. 2 bulbs 4. 1 resistor			