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|  | **Vocabulary Word** | **Definition** | **Picture** |
| **1** | **Circuit** | A closed path where electricity travels. |  |
| **2** | **Voltage** | Provides the energy to be carried in a current. Usually provided by a battery. Measured in Volts |  |
| **3** | **Current** | The flow of electric charge. It can carry energy (voltage).Measured in Amperes  |  |
| **4** | **Resistance**  | Resistance is the measure of how strongly an object “resists” or slows down the current.Ex: The more light bulbs, the more resistance, so the less current. |  |
| **5** | **Resistor** | A resistor is an object that uses some of the energy that the current gives it. It does not let much of the current through. |  |
| **6** | **Ohm’s Law** | The current is directly related to the voltage and inversely related to the resistance.I = V/R |  |

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|  | **Vocabulary Word** | **Definition** | **Picture** |
| **7** | **Insulator** | A material with HIGH resistance. It will NOT let a lot of current through it.Ex: rubber, plastic |  |
| **8** | **Conductor** | A material with LOW resistance. So it will carry A LOT of current through it.Ex: metals, wires |  |
| **9** | **Semiconductor** | A material that has MEDIUM resistance. So it will carry a medium amount of current through it.Ex: computer chips, silicon, radios |  |
| **10** | **Series Circuit** | A current that has only ONE path. If you unplug one of the bulbs, all will turn off.Rtotal= R1 + R2 + …. |  |
| **11** | **Parallel Circuit** | A current that has more than one path.If you unplug one of the bulbs, the rest will stay on.$$\frac{1}{Rtotal}= \frac{1}{R1}+ \frac{1}{R2}+…$$ |  |
| **12** | **Short Circuit** | This happens when a circuit has very low resistance, so too much current passes through. This can cause too much energy, making wires melt, or catch fire.  |  |