Electric Circuits

An electric circuit is a *complete pathway* that allows *electrons* to flow. Electric potential is provided at a source and is "used" by elements of a completed electric circuit.

Define each of the following basic components of an electric circuit.

- (a) source the source of electrical energy (example: a battery)
- (b) conductor the wire through which electric current flows.
- (c) load <u>a device that transfomrs electrical energy into other forms of energy (example: a lightbulb</u>
- (d) switch a device that can turn the circuit on or off by closing or opening the circuit

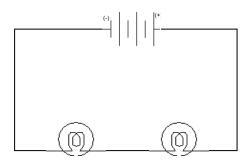
Draw the circuit symbol for each component See page 262

| Component | Circuit Symbol |
|----------------------|--|
| 1. conducting wire | |
| 2. bulb | |
| 3. voltmeter | |
| 4. open switch | → |
| 5. cell | —————————————————————————————————————— |
| 6. closed switch | |
| 7. battery (3 cells) | |
| 8. ammeter | —(A)— |
| 9. resistor | |

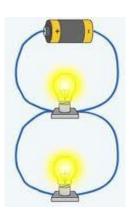
Draw a proper circuit diagram for each of the following circuits.

Circuit A

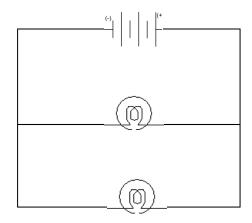
Circuit Diagram A



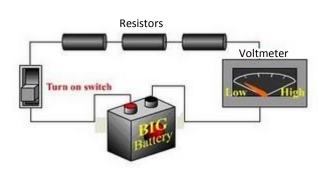
Circuit B



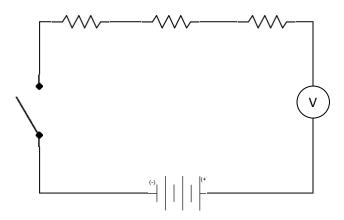
Circuit Diagram B



Circuit C



Circuit Diagram C



Complete 8-2B "Drawing Circuit Diagrams" on page 263 in your notebook.