Electricity Notes

Ohm's law describes the relationship between current, _____ and resistance

- Electric potential energy and Voltage

Voltage is the common name for _____ and is measured in _____ (V)

- Electric potential energy

Energy is the ability to do work.

Kinetic energy is energy a moving object has because of its motion

Potential energy is the energy stored in an object

- Electric potential energy

The electrical energy stored in a battery is called _____

Ohm's law describes the relationship between _____, voltage and resistance

- Current Electricity

_____ electricity is the flow of charged particles in a complete circuit

The unit for measuring electric current is the _____ (A)

Ampere (A) defined as one coulomb of charge passing a given point per second

- Circuit

To have a continuous flow of charge, the circuit must contain at least one source of _____

- Circuit

In a _____, electric potential energy is transformed into other forms of energy

Circuit diagrams are drawn to represent electric circuits

Energy around a circuit

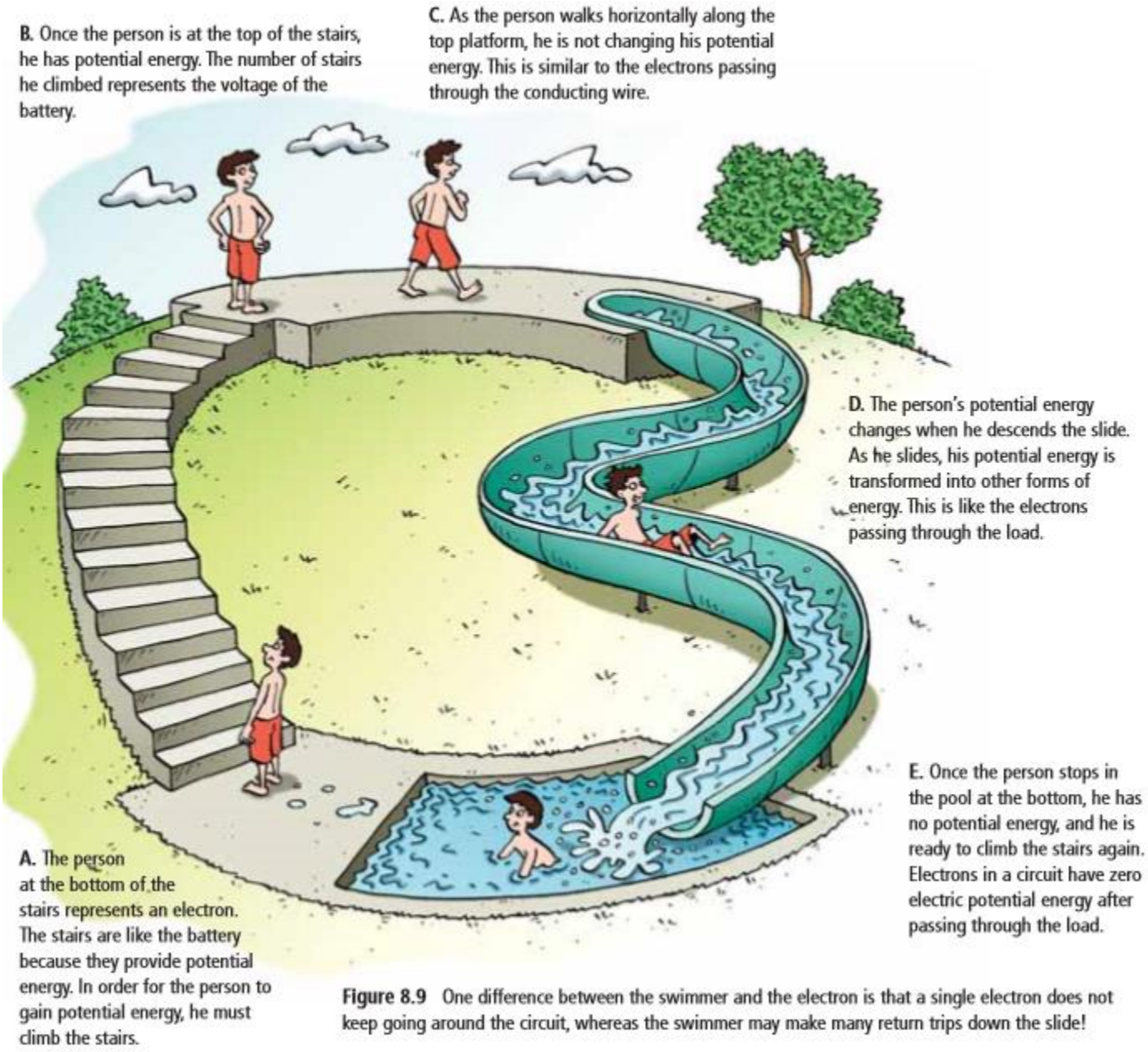


Figure 8.9 One difference between the swimmer and the electron is that a single electron does not keep going around the circuit, whereas the swimmer may make many return trips down the slide!

What happens if you increase the number of stairs leading up to the slide?

What happens if you narrow the slide that the swimmer must go down?

- Circuit Components & Diagrams

4 basic types of parts

- Source: the source of electrical energy
- _____: the wire through which electric current flows
- _____: a device that transforms electrical energy into other forms of energy
- Switch: a device that can turn the circuit on or off by opening or closing the circuit

Circuit Diagrams

Diagrams that use _____ to represent the different components of the circuit

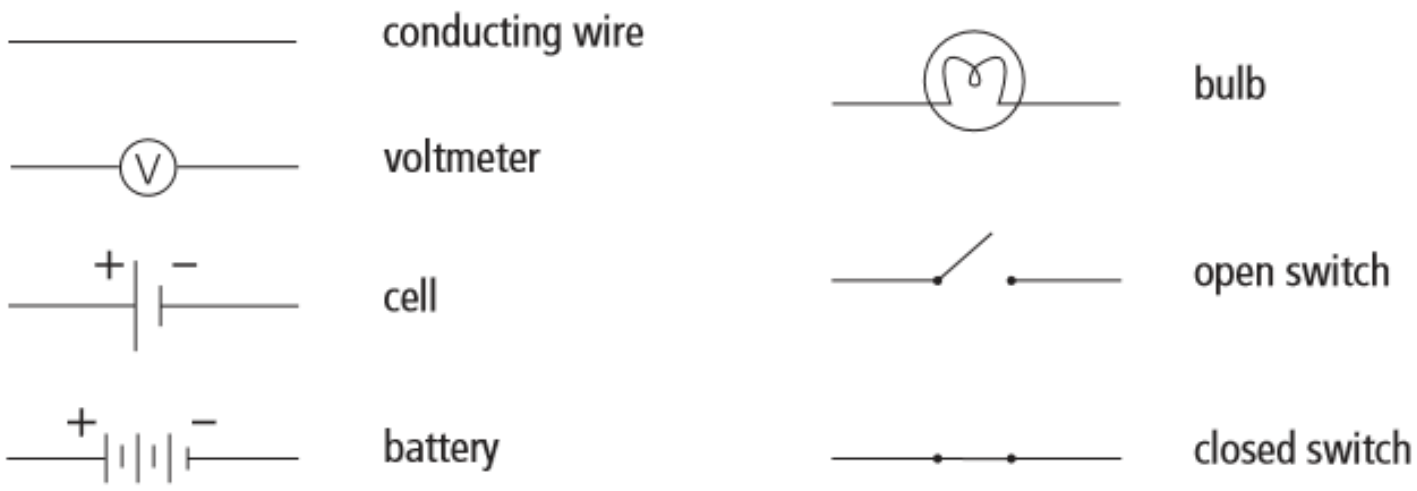
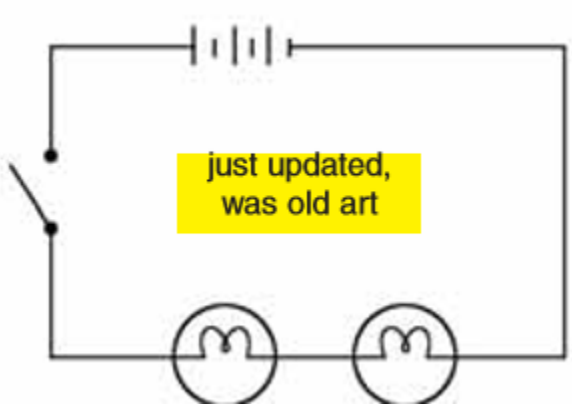
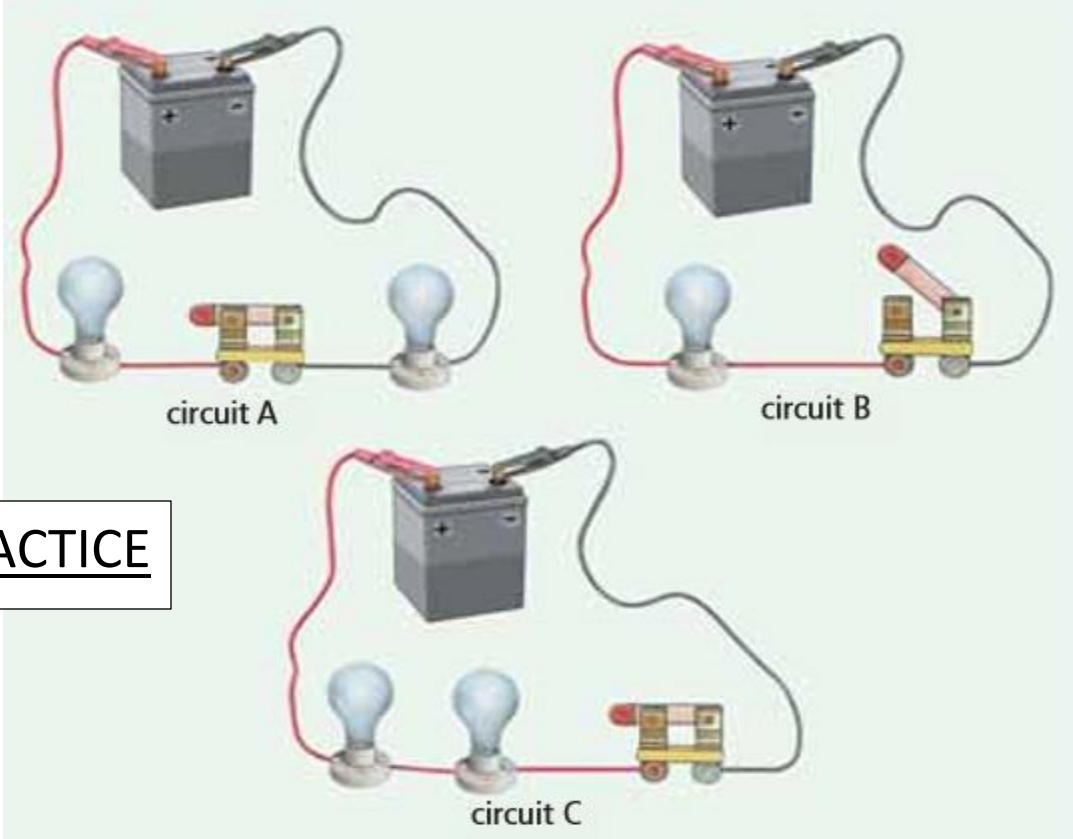


Figure 8.10 Circuit symbols help simplify complex circuits.





PRACTICE

A

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