

UFCh1 Magnetism and Electricity

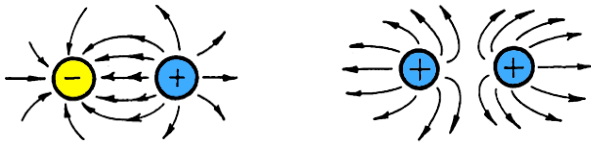
Study Guide

Lesson 1: Static Electricity

What is the measurement of an object's extra positive or negative particles called?

charge

What are the two kinds of electrical charges?



positive and negative

What is a charge that stays on an object called?

static charge

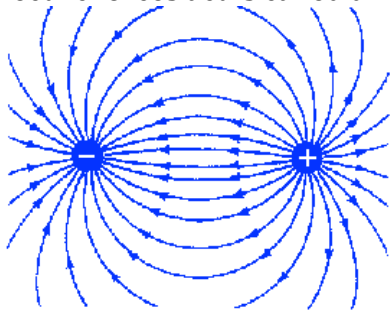
What is static electricity?

jumping electrons

When charges are separated on objects, it is always what charges that move?

negative charges

The space around a charged object where electric forces act is called a what?



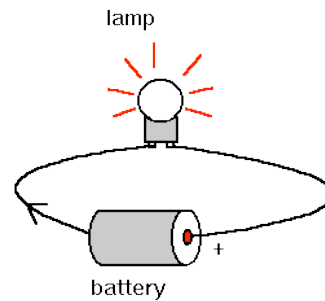
an electric field

Lesson 2: Electric Currents

A flow of electrical charges is called what?

an electrical current

What is a path for electric current called?



a circuit

What supplies the energy to move charges through a circuit? Give an example.



an electric cell. A battery

What do you call a material that electricity can pass through easily? Give some examples.

a conductor: copper, silver, steel (any metal)

What do you call a material that electricity can **not** pass through easily? Give some examples.

an insulator: plastic, wood, air

What do you call a material that slows down (resists) the flow of electricity? Give an example.



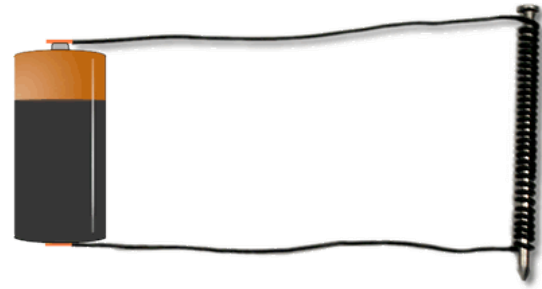
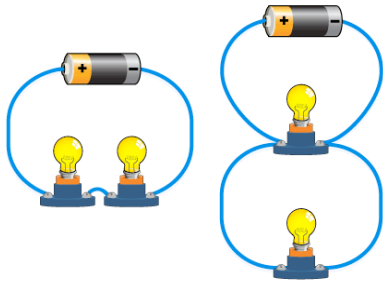
a resistor: tungsten

What do you call a circuit that has only one path for the electric current to flow?

series circuit

What do you call a circuit that has more than one path for the electric current to flow?

parallel circuit



What is the main difference between a bar magnet and an electromagnet?

An electromagnet can be turned on and off.

Lesson 3: Magnets

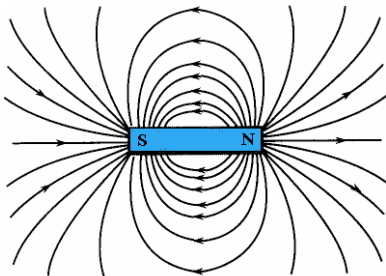
What do you call an object that attracts things made of iron or steel?

a magnet

What are the ends of a magnet called?

the poles (North and South)

What do you call the space around a magnet where the force of the magnet acts?



a magnetic field

What do you call a device that uses the Earth's magnetic field to help you find direction?



a compass

Lesson 4: Electromagnets

What do you call a device that has an arrangement of wire wrapped around an iron core?

an electromagnet

What are two ways to make an electromagnet stronger?

Make more wire loops and increase the current.

What can produce electricity from a magnetic field?

a generator

What do electromagnets in motors do?

make motion