

Electromagnetism

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Glossary

atom smallest unit of a substance that still has all the properties of that substance

conductor material through which electric current passes easily

current electricity electric charges that can flow steadily through a material; also called *electric current*

domain group of atoms whose magnetic fields are lined up with one another

electric charge basic property of matter that can be positive or negative and that changes when matter gains or loses electrons

electric circuit closed path along which electric current flows

electric energy form of energy that results from the way electrons behave

electricity interaction of electric charges; can be static (at rest) or current (flowing)

electric motor device that uses magnets to change electric energy into mechanical energy

electromagnet temporary magnet made when electric current flows through a wire wrapped around an iron or steel core

electron tiny particle that moves around the nucleus of an atom; an electron has a negative electric charge

energy ability to cause changes in matter or do work

field lines invisible lines around a magnet that show the direction and strength of the magnetic field; also called *lines of force*

generator device that uses magnets to change mechanical energy into electric energy

insulator material through which electric current does not easily pass

magnet material that has a magnetic field around it and so attracts metals containing iron, cobalt, or nickel

magnetic field space around a magnet where the force of the magnet acts

magnetic poles places on a magnet where the magnetic force is the strongest

magnetism force of a magnet that attracts the metals iron, cobalt, and nickel and materials that contain these metals

mechanical energy form of energy produced by a moving object

neutron tiny particle that is part of the nucleus of an atom; a neutron has no electric charge

nucleus center of an atom

parallel circuit circuit that connects two or more objects so that the current flows along a different path to each object

permanent magnet magnet that holds its magnetic properties for a long time

proton tiny particle that is part of the nucleus of an atom; a proton has a positive electric charge

resistance measure of how well a material resists the flow of current through it

series circuit circuit that connects two or more objects, one after the other, so that the current flows in a single path to all objects

static electricity electric charges at rest that can build up on a material and discharge, or jump from one material to another, but do not flow steadily

switch device used to start and stop the flow of electric current in a circuit

temporary magnet magnet that loses its magnetism after a short time