FOSS Energy Module
Glossary
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absorb to take in or soak up (SRB)

accelerate to change an object's speed (SRB)

amplitude the height of the peaks in a wave form (SRB, IG)

attract to pull toward each other (SRB, IG)

battery a source of stored chemical energy (SRB, IG)

bulb base the area on a lightbulb where one of the filament support wires extends down to the metal bead (IG)

bulb casing the inside of the metal screw case on a lightbulb where the second filament support wire connects (IG)

circuit a pathway for the flow of electricity (SRB, IG)

closed circuit a complete circuit through which electricity flows (SRB, IG)

code a set of signals that represents letters or words for sending messages (SRB, IG)

coil a series of loops (SRB, IG)

collide to come into contact with another object (IG)

collision when one object hits another object (IG)

compass an instrument that uses a free-rotating magnetic needle to show direction (SRB, IG)

complete circuit a circuit with all the necessary connections (SRB)

component one item in a circuit (SRB, IG)

compression sound waves that move back and forth through vibrations (IG)

conductor a substance, commonly a metal such as copper or aluminum, through which electricity will flow (IG)

constraint a restriction or limitation (SRB)

contact point the place in a circuit where connections are made to allow electricity to flow (SRB, IG)

core in an electromagnet, the material around which a coil of insulated wire is wound (SRB, IG)

crest the high point of a wave (SRB)

criteria a standard for evaluating or testing something (SRB)

cycle a set of events or actions that repeats (IG)

D-cell a source of electricity; also known as a battery (IG)

electric current the flow of electricity through a conductor (SRB, IG)

electricity energy that flows through circuits and can produce heat, light, motion, and sound (SRB, IG)

electromagnet a piece of iron that becomes a temporary magnet when electricity flows through an insulated wire wrapped around it (SRB, IG)

electromagnetism a property of electric and magnetic fields that causes interactions with electric charges and currents (SRB, IG)

electron a tiny particle that has a negative charge and goes around the nucleus of an atom (SRB)

energy the ability to do work (SRB, IG)

energy source a place where energy comes from, such as batteries, food, fuels, and the Sun (SRB, IG)

engineer a scientist who designs ways to accomplish a goal or solve a problem (SRB)

filament the material in a lightbulb (usually a thin wire) that makes light when heated by an electric current (SRB, IG)

force a push or a pull (SRB, IG)

fossil fuel the preserved remains of organisms that lived long ago and changed into oil, coal, and natural gas (SRB)

frequency the speed at which something oscillates. High-frequency vibrations are rapid vibrations. (SRB, IG)

friction a force acting between surfaces passing each other; friction acts to resist motion (IG)

fuel a source of energy when burned (IG)

generator a device that produces electricity from motion (SRB)

gravity a force that pulls objects toward each other (SRB, IG)

heat observable evidence of energy (SRB, IG)

incomplete circuit a circuit that has a break in it (SRB)

induced magnetism the influence of a magnetic field on a piece of iron, which makes the iron a temporary magnet (SRB, IG)

insulator a material that prevents the flow of electricity, commonly plastic, rubber, glass, or air (IG)

interact to act on and be acted upon by one or more objects (SRB, IG)

iron a metal that sticks to a magnet (SRB, IG)

key a switch that completes the circuit in a telegraph system (SRB, IG)

kinetic energy energy that matter has because of its motion (SRB, IG)

light observable evidence of energy (SRB, IG)

lightbulb a filament held by two stiff wires and surrounded by a clear glass globe (SRB, IG)

light source anything that makes light, such as the Sun, a lightbulb, or a flame (SRB)

load a weight or resistance that is moved or overcome when work is done (SRB)

magnet an object that sticks to iron or steel (SRB, IG)

magnetic field an invisible field around a magnet (SRB, IG)

magnetism a property of certain kinds of materials that causes them to attract iron or steel (SRB, IG)

metal a conductor for electricity (IG)

mirror a shiny surface that reflects light (SRB, IG)

motion observable evidence of energy (SRB, IG)

motor a device that produces motion from electricity (SRB, IG)

newton (N) the standard unit for measuring force in the metric system (SRB)

north pole the end of a magnet that orients toward Earth's magnetic north pole (SRB, IG)

open circuit an incomplete circuit through which electricity will not flow (SRB, IG)

opposite different as in the two poles of magnets (IG)

orient to position an object in a certain way (SRB)

oscillation a back-and-forth motion (SRB)

oscilloscope an instrument that displays electric pulses as a wave form on a screen (SRB)

parallel circuit a circuit that has two or more pathways for current to flow (SRB, IG)

peak the high point on a wave form (SRB, IG)

permanent magnet an object that sticks to iron (SRB, IG)

pitch how high or low a sound is (SRB)

pole the end of a magnet (SRB, IG)

potential energy energy that matter has because of its position (SRB, IG)

predict to make an educated guess based on data or previous experience (IG)

prism a piece of transparent material that separates light into a spectrum (IG)

property something you can observe about an object, material, or system (SRB)

prototype the first attempt to build a product (SRB)

ray an electromagnetic wave of light (IG)

reflect to bounce back (IG)

reflection the bouncing of light rays off an object (SRB, IG)

refract to change the speed and direction of travel (IG)

refraction the bending of light rays (SRB, IG)

repel to push away from each other (SRB, IG)

rivet a piece of iron or steel around which a coil is wound (IG)

series circuit a circuit that has only one pathway for current to flow (SRB, IG)

shadow the dark area behind an object that blocks light (SRB)

shaft the part of a motor that rotates when energy is present (IG)

short circuit an unintended pathway that allows current to flow from one terminal of an energy source directly to the other terminal without passing through any other component (IG)

sine wave a repeating s-shaped wave form (SRB)

solar cell a silicon cell that converts sunlight into electric energy and is used as a power source (SRB, IG)

solution the "answer" to a problem. Engineers solve problems. (SRB)

sound observable evidence of energy (SRB, IG)

sound source an object or material that vibrates in a way that sends oscillations through a medium (SRB)

south pole the end of a magnet that orients toward Earth's magnetic south pole (SRB, IG)

speed the rate at which an object changes position (SRB)

static electricity positive and negative electric charges that don't move and are separated from each other (SRB)

stationary not moving (IG)

steel a material made mostly of iron (IG)

stored energy energy available for use (SRB)

switch a device used to open and close circuits (IG)

system a set of objects that are related in some way and can be isolated for study (IG)

technology a modification of natural materials or processes done to satisfy human needs or desires (SRB)

telegraph a device that uses an electromagnet to send coded messages by closing and opening an electric circuit (SRB, IG)

temporary magnet a piece of iron that behaves like a magnet only when it is surrounded by a magnetic field (SRB, IG)

terminal the term used to refer to the ends of a battery (IG)

tool any device used to perform a specific function (SRB)

transfer to move from one source to another (IG)

transfer of energy what happens when objects collide and energy is transferred from the object with more energy to the object with less energy (IG)

transmit to pass through (IG)

trough the low point on a wave form (SRB, IG)

vibration a quick back-and-forth movement (SRB)

wave a repeating pattern of motion (up and down or back and forth) (IG)

wavelength the distance from the center of one peak to the center of the next peak on a wave form (SRB, IG)

white light a mixture of all colors (wavelengths) of visible light (IG)

wire a metal or other solid substance through which electric current moves (SRB, IG)

work to use force to move an object or achieve another outcome (SRB)