



ENGINEERS &
GEOSCIENTISTS
BRITISH COLUMBIA

TEACHER BACKGROUND INFORMATION

ENERGY TRANSFORMATIONS

ELECTRICAL ENERGY

The energy used by things that plug in and turn on. Also, our nervous system and brain run on electrical currents!

LIGHT ENERGY

The energy that enables us to see things. A natural source of this energy is the sun.

CHEMICAL ENERGY

The energy that our bodies get from food and that airplanes get from fuel.

SOUND ENERGY

The energy that we can hear. It is caused by the vibration of air or objects. There is a range of sound frequencies; we can only hear part of the spectrum.

MECHANICAL ENERGY

The energy in a moving object, such as a car or animal running.

NUCLEAR ENERGY

The energy that holds the nucleus of an atom together. Releasing this energy creates nuclear reactions. It is sometimes known as atomic energy.

MAGNETIC ENERGY

The energy that causes some metals to attract each other. Magnets, compasses, and even the Earth have magnetic energy.

GRAVITATIONAL ENERGY

The energy that causes things to fall to Earth and planets to be attracted to the Sun. The gravitational energy in falling water is used to create hydroelectricity.

THERMAL OR HEAT ENERGY

The energy that is caused by the vibration and movement of atoms and molecules. Students will have direct experience of this when cooking warm food or putting on a winter coat.

ELASTIC ENERGY

The energy involved when an object's shape changes by stretching (being pulled apart) or compression (being pushed together). A stretched rubber band and a trampoline have elastic energy.