

SP3a Energy stores and transfers

Word	Pronunciation	Meaning
atomic energy		A name used to describe energy when it is stored inside atoms. Another name for 'nuclear energy'.
chemical energy		A name used to describe energy when it is stored in chemical substances. Food, fuel and batteries all store chemical energy.
elastic potential energy	<i>po-ten-shall</i>	A name used to describe energy when it is stored in stretched or squashed things that can change back to their original shapes. Another name for 'strain energy'.
gravitational potential energy	<i>grav-it-ay-shon-al</i> <i>po-ten-shall</i>	A name used to describe energy when it is stored in objects in high places that can fall down.
joule (J)	<i>jool</i>	A unit for measuring energy.
kinetic energy	<i>kin-et-ick</i>	A name used to describe energy when it is stored in moving things.
law of conservation of energy		The idea that energy can never be created or destroyed, only transferred from one store to another.
nuclear energy		A name used to describe energy when it is stored inside atoms. Another name for 'atomic energy'.
Sankey diagram		A diagram showing energy transfers, where the width of each arrow is proportional to the amount of energy it represents.
strain energy		A name used to describe energy when it is stored in stretched or squashed things that can change back to their original shapes. Another name for 'elastic potential energy'.
system		A set of things being studied – for example a kettle, the water in it and its surroundings form a simple system.
thermal energy		A name used to describe energy when it is stored in hot objects. The hotter something is the more thermal energy it has.

SP3b Energy efficiency

Word	Pronunciation	Meaning
dissipated		Spread out.
efficiency	<i>e-fish-en-see</i>	A way of saying how much energy something wastes. A more efficient machine wastes less energy.
lubrication		To reduce friction by putting a substance (usually a liquid) between two surfaces.

SP3c Keeping warm

Word	Pronunciation	Meaning
absorb		To soak up or take in.
conduction	<i>con-duck-shun</i>	The way energy is transferred through solids by heating. Vibrations are passed on from particle to particle.
convection	<i>con-veck-shun</i>	The movement of particles in a fluid (gas or liquid) depending on their temperature. Hotter, less dense regions rise, and cooler, denser regions sink.
emit		To give out.
fluid		A liquid or a gas.
infrared radiation	<i>ray-dee-ay-shun</i>	Another name for energy that travels by radiation. It can travel through transparent things and a vacuum or empty space.
insulation		A material that does not allow something, e.g. heat or electricity, to pass through it.
radiation	<i>ray-dee-ay-shun</i>	A way of transferring energy by heating. Also known as infrared radiation.
thermal conductivity		A measure of how easily energy can pass through a material by heating. A material with a low thermal conductivity is a good insulating material.
thermal conductor		A material that allows energy to be transferred through it easily by heating.
thermal insulator		A material that does not allow energy to be transferred through it easily by heating.

SP3e Non-renewable resources

Word	Pronunciation	Meaning
climate change		Changes that will happen to the weather as a result of global warming, which is caused by the increase in the amount of carbon dioxide in the atmosphere.
fossil fuel		A fuel formed from the dead remains of organisms over millions of years (e.g. coal, oil or natural gas).
non-renewable		Any energy resource that will run out because we cannot renew our supplies of it (e.g. oil).
nuclear fuel		A radioactive metal such as uranium. Nuclear fuels are used in nuclear power stations to generate electricity.
renewable		An energy resource that will never run out (e.g. solar power).
uranium	<i>you-rain-ee-um</i>	A radioactive metal that can be used as a nuclear fuel.

SP3f Renewable resources

Word	Pronunciation	Meaning
biofuel		A fuel made from plants or animal wastes.
hydroelectricity		Electricity generated by moving water (usually falling from a reservoir) turning turbines and generators.
solar cell	<i>sO-lah sell</i>	A flat plate that uses energy transferred by the light to produce electricity.
solar energy	<i>sO-lah</i>	Energy from the Sun.
tidal power		Generating electricity using the movement of the tides.
wind turbine		A kind of windmill that generates electricity using energy transferred by the wind.