

KNOWLEDGE & VOCABULARY

ORGANISER



Energy



Conduction	Method of transferring heat in solids.
Convection	Method of transferring heat in liquids and gases
Radiation	Method of transferring heat that does not need particles
Dissipation	Energy becoming spread out to the stores of surrounding objects (usually wasted thermal energy.)
Insulation	A method of reducing energy transfers by the use of insulators . Occurs in buildings e.g. Loft insulation.
Conservation of energy	The law that states that energy cannot be created or destroyed .
Input energy	Energy supplied to a device.
Useful energy	Energy transferred to where it is wanted in the way it is needed.
Wasted energy	Energy that is not usefully transferred.
Efficiency of a device	The proportion of the total input energy that is transferred in useful ways.

Science

Department

Methods of energy transfer (also known as energy carriers)		
Mechanical	Energy transferred by forces acting on objects.	
Electrical	Energy transferred when an electric current flows through a device.	
Radiation	Energy transferred by electromagnetic radiation (light, microwaves, sound etc.)	
Heating	Energy transferred by conduction, convection or radiation.	
Chemical energy		(e.g. fuel + oxygen) – Can be changed by bonds being made/broken
Kinetic energy		All moving objects have it.
Gravitational Potential energy		Energy stored in objects raised up against the force from gravity (possessed by anything that can fall .)
Elastic Potential energy		Energy stored in an object that has been stretched (stretched springs, rubber bands, elastic band etc.)
Thermal (Heat) energy		Flows from hot objects to colder objects.