KS3	Unit P4: Energy	Year: 7/8

Energy stores and pathways		
1	Energy	ability to do work
2	System	an object or group of objects
3	Kinetic energy store (E_k)	energy within an object which is moving
4	Thermal energy store	energy within a hot object
5	Chemical energy store	energy released by a chemical reaction
6	Gravitational potential energy store (E_P)	energy within an object that is lifted
7	Elastic potential energy store	energy within an object that is stretched, squashed or twisted
8	Electrostatic energy store	energy within an object that has two charges that attract or repel each other
9	Nuclear energy store	energy within the nucleus of an atom
10	Joules	unit of measurement of energy
11	Conservation of energy	energy cannot be created or destroyed
12	Energy pathways	

Energy pathway		Examples
Mechanically	when a force does work	pushing an object
Electrically	when moving charge does work	current flowing through a light bulb
Heating	when energy moves from a hot object to a cold one	heating a pan of water
Radiation	transfer of energy by light or heat	light travelling to the Earth

13	Useful energy	transfer of energy to the intended energy store
14	Wasted energy	transfer of energy to an energy store that you do not want
15	Energy transfer	the movement of energy from one energy store to another
16	Efficiency	percentage of the total energy supplied to a device that is useful
17	Work done	transfer of energy from one store to another
18	Power	rate at which energy is transferred
Energy resources		
19	Renewable energy	a resource that is naturally replaced as quickly as it is used
20	Renewable resources	solar, wind, tidal, geothermal, hydroelectric, biofuels
21	Non-renewable resources	resources that will run out one day
22	Fossil fuel	made from fossilised remains of plants and animals
Heat transfer		
23	Thermal conductor	material that allows heat energy to pass through
24	Thermal insulator	material that does not allow heat energy to pass through
25	Convection	transfer of heat when a fluid flows carrying heat energy with it
26	Conduction	transfer of heat through a material by transferring kinetic energy from one particle to another
27	Radiation	transfer of heat energy in the form of electromagnetic waves
28	Density	measure of the mass in a volume of an object (mass/volume)
29	Particles	small pieces e.g. atoms or molecules that make a substance
30	Absorb	taking in energy resulting in a rise in temperature
31	Emit	release of thermal energy