

Energy - Energy Transfer KEY LEARNING

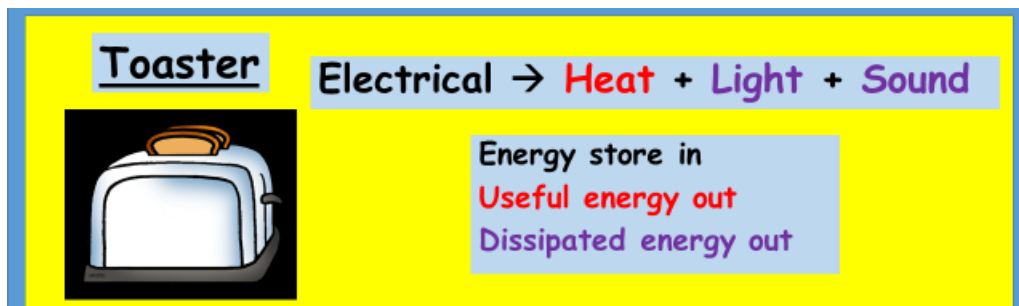
List energy types and link to common sources of these energy types: light, thermal (heat), sound, chemical potential, kinetic, elastic potential, electrical and gravitational potential.

Light energy	The Sun, lightbulb
Thermal (heat) energy	The Sun, fire
Sound energy	Radio, TV
Chemical energy	Match, food
Kinetic (movement) energy	Moving car, rolling ball
Elastic energy	Squashed spring, hair band
Electrical energy	Wires, lightning
Gravitational energy	Hot air balloon, plane

State that energy cannot be destroyed, it can only be transferred into other types of energy.

When energy is transferred, the total is conserved, but some energy is dissipated (spread out), reducing the useful energy.

Energy is measured in Joules (J).



Energy - Energy Costs KEY LEARNING

Electricity has to be paid for and it's expensive. The cost of electricity also keeps going up.



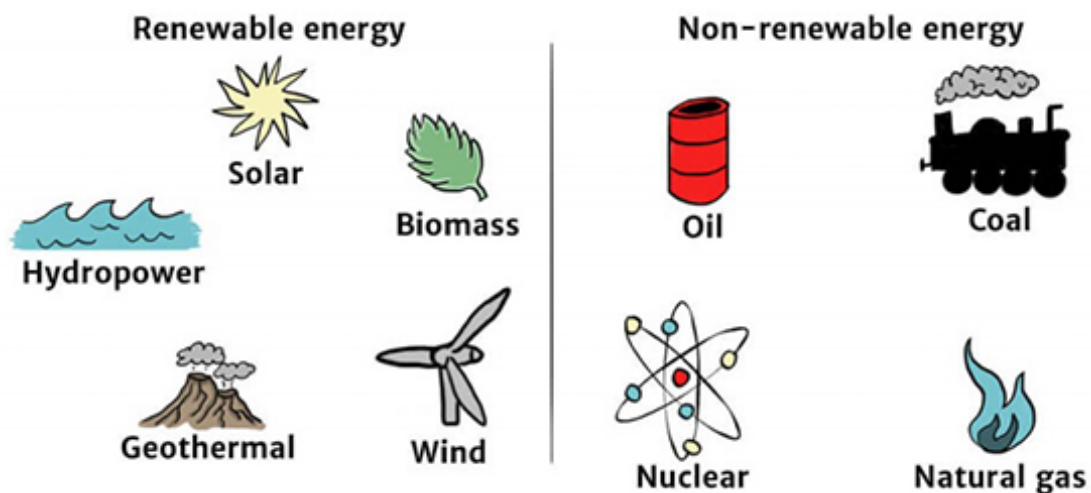
Our electricity bill increases if we use more electrical appliances and we use them for longer.

Keywords:

Non-renewable: An energy resource that cannot be replaced and will be used up.

Renewable: An energy resource that can be replaced and will not run out. Examples are solar, wind, waves, geothermal and biomass.

Fossil fuels: Non-renewable energy resources formed from the remains of ancient plants or animals. Examples are coal, crude oil and natural gas.



Key Learning Questions	Year 7 Energy
Which unit do we use for energy?	Joule/J
True or false? Energy can be destroyed.	False
True or false? Energy can be transferred into other types of energy.	True
Which energy type begins with the letter K?	Kinetic
Which energy type begins with the letter S?	Sound
Which energy type begins with the letter T?	Thermal
Our electricity bill is higher if we use more appliances. What else makes our bill higher?	Length of time appliances are used. Electricity cost rises.

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A renewable or non-renewable energy resource? COAL	
A renewable or non-renewable energy resource? SOLAR	
A renewable or non-renewable energy resource? WIND	
A renewable or non-renewable energy resource? CRUDE OIL	
Keyword: How quickly energy is transferred by a device.	
Which unit do we use for power?	
Power (kW) x time (h) x price per kWh (p) =	
What do we call energy that is spread out wastefully?	
Name one of the three types of potential energy.	
Name the useful energy released by a toaster.	
Name 2 dissipated energy types released by a toaster.	
Which energy is supplied to a light bulb?	

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Keyword: How quickly energy is transferred by a device.	Power
Which unit do we use for power?	Watt/W
Power (kW) x time (h) x price per kWh (p) =	Bill/Cost of electricity (p)
What do we call energy that is spread out wastefully?	Dissipated
Name one of the three types of potential energy.	Gravitational, chemical, elastic
Name the useful energy released by a toaster.	Heat
Name 2 dissipated energy types released by a toaster.	Light
	Sound
Which energy is supplied to a light bulb?	Electrical

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