



Section 1: Key Vocabulary	
Key Word	Definition
Energy	The capacity for doing work
Potential Energy	The energy stored by an object
Thermal Energy	Energy that is generated and measured by heat
Chemical Energy	Energy stored in the bonds of chemical compounds, usually fuels or food
Sound Energy	Energy related with the vibration of matter that our ears detect
Light Energy	Energy our eyes detect
Kinetic Energy	Energy of movement
Elastic Energy	Energy stored in stretched or compressed objects
Nuclear Energy	Energy stored in the centre of particles
Electrical Energy	Energy of particles moving through a wire
Gravitational Potential Energy	Energy of an object that is raised above the Earth's surface
Magnetic Energy	Energy causing the force exerted by a magnet
Joule	Unit of energy, J
Efficiency	How much of the energy in is transferred into useful energy

Section 2: Quick Questions	
What is the Law of Conservation of Energy?	Energy cannot be created nor can it be destroyed, it is transferred from one form to another
What is an energy transfer?	When one type of energy is transferred into another type of energy
What are energy diagrams?	Energy diagrams show energy transfers using arrows: Chemical → Sound + Kinetic
What energy transfer is done by a toaster?	Electrical → Heat + Kinetic + Light
Is any energy lost during an energy transfer?	No energy is lost, though it might be wasted.
What is waste energy?	Waste energy is energy not transferred to a useful output e.g. the heat given out by a light bulb
What type of energy do humans use to store our energy?	Chemical energy, stored in our food and then stored as carbohydrates and fats in our bodies.
How can we measure the heat given out by food?	We can use the energy to heat water, which we can measure the temperature change of.
What is a kilojoule?	A kilojoule, kJ, is equal to 1000 J.

### Section 3: Helpful Diagrams

chemical → kinetic  
sound  
heat

**Chemical Energy Stored in A Cell** → **Electrical Energy** → **Bulb**

Light Energy  
Thermal Energy

**Sankey Diagram**

Electrical energy 750 J

Kinetic energy 125 J

Sound energy 150 J

Thermal energy 550 J

**Section 4: Video Links**