

# Energy

Date:

Name:

Class:



**Task 1** – Using the words in the list below, fill in the gaps in the following sentences

clockwork toy ~ gravitational energy ~ elasticity ~ speed ~ trampoline ~ potential energy ~ elastic energy

**Potential energy** is the energy stored within a body or object. A good example of this is fully wound a **clockwork toy**.

**Elasticity** is the ability of a material to be stretched or compressed and return to its original form. The surface of a **trampoline** demonstrates this when we jump on it.

An archer drawing back the string in the bow forms **elastic energy** which will launch the arrow when they let go.

An object dropped from a height has **gravitational energy**; as the object falls it gathers **speed**.

If a cat, a tin of paint, a sack of flour and pile of books all weigh the same, put a **tick** in the box next to situation below which shows **the greatest potential gravitational energy**.

A cat sitting on a chair

A tin of paint at the top of a ladder leaning against a first-floor window

A sack of flour on the back of a pickup truck

A pile of books balanced at the top of one flight of stairs



**Task 2** – Use a line to match the types of energy listed with the relevant images below

Electrical

Kinetic

Chemical

Elastic

Thermal

Sound

Light



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**Task 3** - Identify all the types of energy you think are relevant to the images below  
The first one has been done as an example...

Gas stove	Jumping man	Light bulb	Food processor	Roller coaster
Once lit, the chemical energy in the gas canister transforms into thermal energy	Chemical energy from nutrition is used to power the body converting into kinetic energy and movement	Electrical energy is converted into light energy	When the blender is switched on, electrical energy is transformed into mechanical energy	At the top of the rollercoaster, the train has potential gravitational energy and as it plunges down this is converted into kinetic energy
Outcome	Outcome	Outcome	Outcome	Outcome
Thermal energy or heat for cooking	A jump or explosive physical movement	The bulb can light a room	The blades rotate	Creates a fast, exciting ride



**Task 4** – Using the words in the list below, fill in the gaps in the following paragraph  
connection ~ electrodes ~ electricity ~ heat ~ batteries ~ negative ~ light ~ potential ~ positive ~ chemical ~ electrons ~ bulb



The torch uses **batteries** which contain **potential** chemical energy.

Each battery has two terminals or **electrodes** at each end, one **positive** and one **negative**. The battery contains a **chemical** called an electrolyte.

When the switch is on, a **connection** is made allowing electrons to flow between the terminals forming **electricity**, which powers the **bulb**.

The outcome of this transformation is **light** energy however some energy is lost through **heat**.