

Task A

Match each energy store to its description and two examples.

What do you notice about energy stores?

This store fills as an object is lifted higher.	Energy stored in moving objects. The store empties as an object slows down.	The energy in this store increases as the temperature increases.	This store fills as an object is squashed or stretched.
Gravitational potential energy store	A parachutist jumping out of a plane empties this store.	Kinetic energy store	A jack in the box being released empties this store.
A car braking empties this store.	A runner speeding up fills this store.	A storage radiator cooling down empties this store.	Melting ice empties this energy store.
A fuel being burnt empties this store.	Chemical energy store	Lifting a book above your head fills this store.	Thermal energy store
A catapult being stretched back fills this store.	Energy stored in the bonds of chemical compounds. The energy in this store is decreased if the bonds are broken.	Elastic energy store	During photosynthesis, this energy store is filled - as energy is stored in the bonds of the glucose molecules that are produced.

Task B

Match the energy store to its description and two examples.

Energy stores	Definition	Example of energy transferring to fill the store	Example of energy transferring to empty the store
Kinetic energy store	This store fills as an object is squashed or stretched.	A catapult being stretched back fills up this store.	A fuel being burnt empties this store.
Gravitational Potential energy store	The energy in this store increases as the temperature increases.	During photosynthesis, this energy store is filled - as energy is stored in the bonds of the glucose molecules.	A jack in the box being released empties this store.
Chemical energy store	Energy stored in moving objects. The store empties as an object slows down.	A storage radiator cooling down empties this store.	Melting ice empties this energy store.
Elastic energy store	This store fills as an object is lifted higher.	Lifting a book above your head fills this store.	A parachutist jumping out of a plane empties this store.
Thermal energy store	Energy stored in the bonds of chemical compounds. The energy in this store is decreased if the bonds are broken.	A runner speeding up fills this store.	A car braking empties this store.

Teaching notes and answers

Task A is more challenging than Task B.

If cutting and pasting is too time consuming for the group then instruct them to colour matching cards in the same colour.

Use the task to discuss how energy stores can be filled or emptied as energy is transferred. Follow on by exploring how energy is transferred from one store to another - as one store is emptied another is filled.

Energy stores	Definition	Example of energy transferring to fill the store	Example of energy transferring to empty the store
Kinetic energy store	Energy stored in moving objects. The store empties as an object slows down.	A runner speeding up fills this store.	A car braking empties this store.
Gravitational Potential energy store	This store fills as an object is lifted higher.	Lifting a book above your head fills this store.	A parachutist jumping out of a plane empties this store.
Chemical energy store	Energy stored in the bonds of chemical compounds. The energy in this store is decreased if the bonds are broken.	During photosynthesis, this energy store is filled - as energy is stored in the bonds of the glucose molecules.	A fuel being burnt empties this store.
Elastic energy store	This store fills as an object is squashed or stretched.	A catapult being stretched back fills up this store.	A jack in the box being released empties this store.
Thermal energy store	The energy in this store increases as the temperature increases.	A storage radiator cooling down empties this store.	Melting ice empties this energy store.