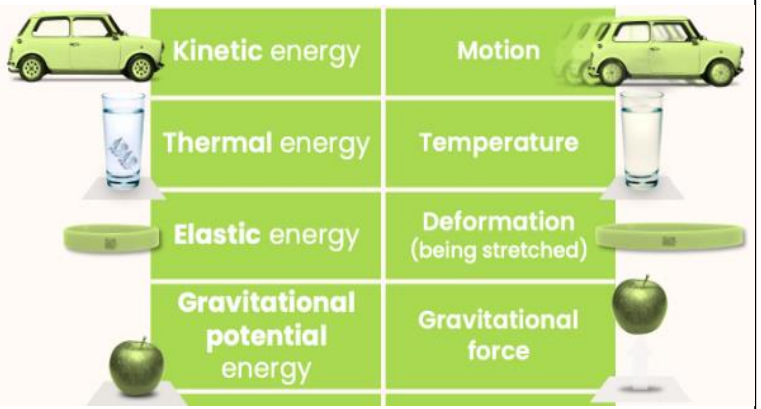
Year 9 Energy

Energy from the Sun

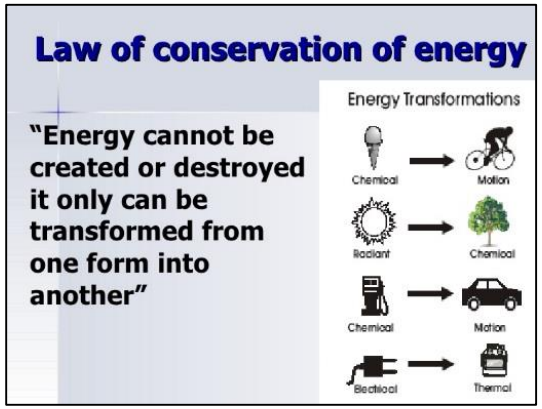
- Energy gives the ability to do things.
- Almost all of the energy on Earth comes from the Sun.

Stores of energy

- chemical (e.g. fuel + oxygen)
- kinetic (in a moving bject)
- gravitational (due to the position of an object in a gravitational field)
- elastic (e.g. in a stretched or compressed spring)
- thermal (in a warm object)



Conservation of energy



Renewable energy sources

Advantages

- Will not run out.
- Some of them do not generate greenhouse gases.
- Many will not have any fuel costs.

Disadvantages

- They often require the right environmental conditions, which are variable (e.g. sunlight, amount of wind).

Energy from food and fuels

- Energy is stored as chemical energy in food and fuels.
- We can find out how much energy is in food by reading the food labels.
- The unit for energy in foods is the kJ.

Non-renewable energy sources

Advantages

- Are readily available
- They are relatively inexpensive.
- They are easy to Transport.

Disadvantages

- Highly polluting including, carbon dioxide and carbon monoxide
- Sulphur oxides, nitrogen oxides and PM 10s
- Limited supply (will eventually run out)
- Accidents during transportation and drilling can have catastrophic events.