



Dr. Bbosa Science

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ENERGY

Energy is the ability to do work.

It is measured in joules

Work is a product of force and distance

Work = force x distance

A **force** is a push or a pull

Types of energy

Potential energy /stored energy

This is a form energy at rest or energy reserve. Stored energy cannot do any work unless released.

Stored energy is found in food, fuel, dry cells and car batteries as chemical energy.

Kinetic energy

This is energy possessed by moving objects, such as wind, kicked ball

Different forms of energy

They include

- (i) Light enables us to see and to make solar electricity
- (ii) Sound enables us to hear
- (iii)Electrical energy enable radio and television to work
- (iv)Heat energy make things hot
- (v) chemical
- (vi)magnet

Chemical energy

This is the energy contained in chemicals such as food, fuel, dry cells and car batteries.

Example of fuels include charcoal, paraffin, candle wax, petroleum gas.

Sources of energy

The sources of energy are divided into two

- (i) Renewable sources of energy do not get exhausted easily for example solar, biogas, wind, water fall, trees
- (ii) Non – renewable resources include coal, petroleum, and minerals

NB. Biogas is produced by mixing plant remains, dung and /or dead animals with water in absence of air.

Transformation of energy

Energy cannot be created or destroyed. It can only be converted or transformed from one type into another type of energy. Examples of devices or material that transform energy from one type to another type are shown in the table below:

Device	Energy transformation
Electric circuit	Chemical energy → electric energy → heat energy → light energy (in the wires) (bulb) (bulb)
Food	Chemical energy → heat (the food) (in the body)
Burning fuel	Chemical energy → heat energy → light energy → light energy (charcoal) (the burning charcoal) (flames)
Radio	Chemical energy → Electric energy → magnetic energy → sound energy (dry cells) (wires) (radio speakers)

