

KNOWLEDGE & VOCABULARY

ORGANISER



Energy



| Conduction | Method of transferring heat in solids. |
|------------------------|---|
| Convection | Method of transferring heat in liquids and gases |
| Radiation | Method of transferring heat that does not need particles |
| Dissipation | Energy becoming spread out to the stores of surrounding objects (usually wasted thermal energy.) |
| Insulation | A method of reducing energy transfers by the use of insulators . Occurs in buildings e.g. Loft insulation. |
| Conservation of energy | The law that states that energy cannot be created or destroyed . |
| Input energy | Energy supplied to a device. |
| Useful energy | Energy transferred to where it is wanted in the way it is needed. |
| Wasted energy | Energy that is not usefully transferred. |
| Efficiency of a device | The proportion of the total input energy that is transferred in useful ways. |

Science

Department

| Methods of energy transfer (also known as energy carriers) | | |
|--|---|---|
| Mechanical | Energy transferred by forces acting on objects. | |
| Electrical | Energy transferred when an electric current flows through a device. | |
| Radiation | Energy transferred by electromagnetic radiation (light, microwaves, sound etc.) | |
| Heating | Energy transferred by conduction, convection or radiation. | |
| Chemical energy | | (e.g. fuel + oxygen) – Can be changed by bonds being made/broken |
| Kinetic energy | | All moving objects have it. |
| Gravitational Potential energy | | Energy stored in objects raised up against the force from gravity (possessed by anything that can fall .) |
| Elastic Potential energy | | Energy stored in an object that has been stretched (stretched springs, rubber bands, elastic band etc.) |
| Thermal (Heat) energy | | Flows from hot objects to colder objects. |