P4.1 Glossary

Degrees Celsius	The unit used for temperature. *The melting point of water is 0 **degrees Celsius** (°C).*
Density	The mass per unit volume. *Warm fluids have a lower **density** than cold fluids, causing them to rise.*
Displacement	The movement of something from its original position. *Irregularly shaped solids can be placed into a **displacement** can to determine the volume of water that is displaced.*
Fluid	A substance with no fixed shape: a liquid or gas. *Convection is thermal transfer when particles in a heated **fluid** rise.*
Hydraulic	Relating to liquid under pressure. ***Hydraulic** systems use liquids to act as force multipliers.*
Incompressible	Cannot be compressed (has a fixed volume). *Liquids and solids are **incompressible** but gases can be compressed.*
Internal energy	The total kinetic energy and potential energy of all the particles in a system. *When a substance is heated, its **internal energy** increases.*
Irregular shape	An object that has sides and angles of any length and size, so is not a cube, cuboid, cylinder etc. *A jelly baby has an **irregular shape.***
Kinetic energy	A store of energy that any object or particle has when moving. *Particles in a gas have the greatest store of **kinetic energy**.*
Mass	The amount of matter in an object. ***Mass** is measured in kilograms (kg).*
Potential energy	A store of energy related to the position of objects or particles. *Particles in a gas have the greatest store of **potential energy**.*

Pressure	The amount of force exerted per unit area. *Particles in a fluid exert **pressure** on any surface.*
Regular shape	An object that has sides and angles of equal sizes and lengths. *A **cube** has a regular shape.*
State	The physical form in which a substance is in: solid, liquid or gas. *Melting and boiling are examples of changes of **state**.*
System	A body, object or group of bodies. *When looking at the internal energy of a **system**, you must consider the kinetic and potential energy of all of the particles in it.*
Temperature	Related to the average kinetic energy of particles in a system. ***Temperature** is measured in °C.*
Upthrust	The upward force that a liquid or gas exerts on an object. *If **upthrust** is greater than weight, an object will float.*
Volume	The amount of space that a substance or object takes up. *Liquids and solids have a fixed **volume**.*