Word Bank: Changing Materials

Scientific term	Definition	Example(s) or Diagram
materials	A **material** is any substance that has a name, eg chalk, paper, wood. Everything is made up of materials and we can choose the best **material** for the job.	
solid	The shape of a **solid** does not change on its own. It is rigid and has a fixed volume.	
liquid	The shape of a liquid does change, it is not rigid. It fits the shape of the container it is put in.	
gas	**Gases** do not have a shape. They completely fill any container they are put into. have the same volume as the container.	
molecules	A **molecule** is two or more atoms joined (or "bonded") tightly together.	
changing state	We can **change** a material's **state** by **changing** its temperature, eg. ice (solid) to water (liquid) to steam (gas) and in reverse.	
condensation	Water vapour (water in its gas form) cools and turns into liquid.	
evaporation	When a liquid is heated, it evaporates and becomes a gas.	
melting	**Melting** is the process of changing a solid into a liquid (like ice into liquid water).	
filtering	**Filtering** is a process by which impurities or particles are removed from either a liquid or a gas.	
dissolving	When a substance **dissolves**, it might look like it has disappeared, but in fact it has just mixed with the water to make a transparent (see-through) liquid called a solution.	
soluble	A solution is made when one substance "**dissolves**" into another and forms a **solution**. Larger groups of molecules break down into much smaller groups or individual molecules.	
insoluble	A solid's particles will not dissolve and combine with a liquid's particles.	

Word Bank: Changing Materials

reversible change	This is when materials **can be changed back** to how they were before the reaction took place, eg. Ice melts to form water and can be frozen back to ice again.	
irreversible change	Irreversible **Change** is when materials **cannot be changed back** to how they were before.	
solidification	**Solidification**, also known as freezing, is when a solid is formed.	
sieving	**Sieving** is aprocess to **separate** finer particles from coarser ones or solids from liquids.	
chemical changes	A **chemical change** is any **change** that causes a new substance to be formed.	
physical changes	A **physical change** is a **change** in which no new substances are formed.	
reaction	A chemical **reaction** is a process where a set of substances undergo a chemical change to form a different substance.	
permeable	Means to allow liquids in particular to **pass** through a solid.	
transparent	**Transparency** is the property of allowing light to pass through something. An object that is **transparent** can be seen through.	
translucent	**Translucent** materials allow light to pass through but so the object is not clearly visible.	
opaque	**Opaque materials** do not allow any light to pass through. The object on the opposite side of the light is not visible at all.	
viscosity	**Viscosity** is the property of a liquid that describes how fast or slowly it will flow. You can think of **viscosity** as how thick a liquid is. ...	
conduct	**Conductors** are substances that an electric charge can pass through without difficulty.	
insulate	**Insulators** are materials which do not conduct heat very well and so we can use them to control heat and keep things hot or cold.	
magnetism	The force of attraction or repulsion between substances made of certain materials, eg. iron, nickel, cobalt and steel.	

Word Bank: Changing Materials