


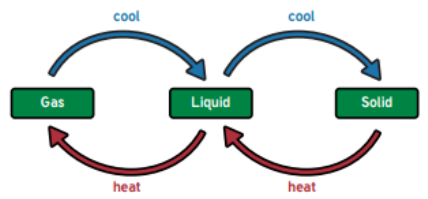


Properties and changes of materials

Solid	Liquid	Gas
<ul style="list-style-type: none"> • stay in one place • keep their shape • do not flow • always take up the same amount of space • do not spread out • can be cut or shaped 	<ul style="list-style-type: none"> • can flow or be poured • not easy to hold • change their shape to fit the container they are in • take up the same amount of space • volume stays the same 	<ul style="list-style-type: none"> • often invisible • do not keep shape • do not take up the same amount of space • can change shape and volume • can be squashed
		

Vocabulary –
Thermal Insulator – heat doesn't pass through e.g. wood.
Thermal Conductor - heat passes through easily e.g. metal.
Transparent - you can see clearly through it e.g. glass.
Opaque – you cannot see through the object e.g. wood.
Soluble – will dissolve.
Insoluble – won't dissolve.

States of matter can change when they are heated or cooled.



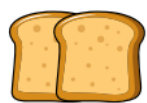
Words to describe materials:

- hard
- soft
- durable
- flexible
- transparent
- absorbent
- waterproof
- magnetic
- translucent
- opaque


Different materials are good for different jobs because of their qualities and properties. For example: rubber is a good material for tyres because it is durable.

Irreversible changes


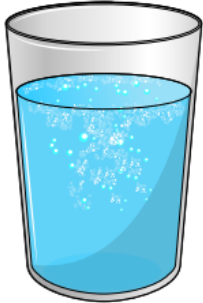
Irreversible changes are when you cannot get the original materials back again. Heating and chemical reactions can both cause irreversible changes.



Making toast




Baking a cake


Separating materials	Solutions
<p>Evaporation – used for separating a soluble solid and a liquid</p> <p>Sieving – used for separating two solids</p> <p>Magnets – used for separating magnetic and non-magnetic materials</p> <p>Filtration – used for separating a liquid and a solid</p>	<p>A solution is made when a material dissolves in a liquid. Sugar and water are soluble materials. An insoluble material is one that does not dissolve in liquid, such as sand. Materials in a solution can be separated by evaporation.</p>
	

Reversible changes

Reversible changes are when you can get the original materials back. Materials can be separated in different ways.



Making ice cubes



Mixing sugar in coffee