

# Science Knowledge Organiser

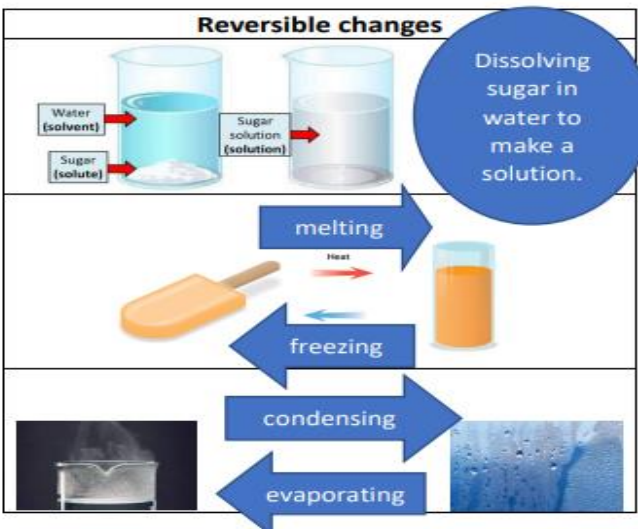


<b>Topic: Changes of Materials</b>	<b>Year 5: Spring Term</b>	<b>Strand: Chemistry</b>
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<b>What should I already know?</b>
<ul style="list-style-type: none"> <li>• Water is a liquid</li> <li>• Air is a gas</li> <li>• What a solid is</li> </ul>

Key vocabulary	
<b>thermal insulator</b>	Does not allow heat to pass through it easily.
<b>thermal conductor</b>	Allows heat to pass through it easily.
<b>electrical insulator</b>	Does not allow electricity to pass through it.
<b>electrical conductor</b>	Allows electricity to pass through it.
<b>dissolve</b>	A solid that completely mixes in with a liquid and cannot be seen.
<b>solution</b>	A mixture of a liquid with a dissolved solid or gas.
<b>soluble</b>	Solids and gases that dissolve in liquids.
<b>insoluble</b>	Solids that do not dissolve in a liquid.
<b>sieve</b>	Separates solids of different sizes.
<b>filter</b>	Separates an insoluble solid that is mixed in a liquid.
<b>evaporation</b>	Separates a soluble solid and a liquid.
<b>reversible change</b>	Changes that can be switched back and are not permanent. E.g. dissolving, melting, freezing
<b>non-reversible change</b>	Changes that can not be reversed back to their original state. E.g. burning, rusting

Separating materials	
<p><b>Sieving</b> separates the stones and twigs from the soil.</p>	
<p><b>Filtering</b> separates the sand from the mixture.</p>	
<p><b>Evaporating</b> separates the dissolved salt from the water.</p>	



Non-reversible changes - these result in the formation of new materials	
<b>Burning</b>	
<b>Mixing vinegar and bicarbonate of soda</b>	
<b>Rusting</b>	

<p style="text-align: center;"><b>Materials can be grouped together based on their properties. For example:</b></p> <ul style="list-style-type: none"> <li>• hardness</li> <li>• solubility</li> <li>• transparency</li> <li>• thermal conductivity</li> <li>• electrical conductivity</li> <li>• response to magnets</li> </ul>
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