
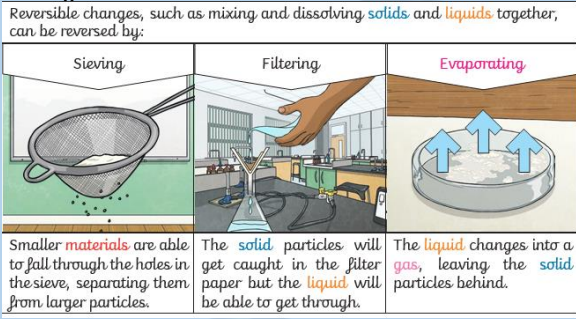
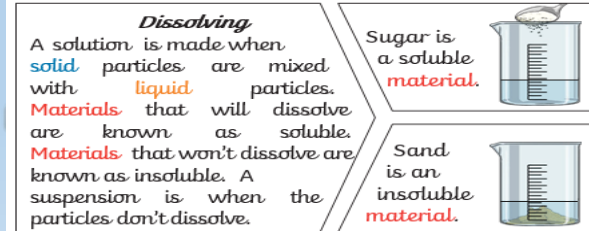


Key Knowledge	Key Skills	Key Vocabulary						
<ul style="list-style-type: none"> <li>Any substance that is used to make something is a material.</li> <li>Natural materials such as stone, wood and cotton are used or worked with in the way they are found in nature.</li> <li>Synthetic or human-made materials are made from natural materials, but are altered with the help of heat or chemicals such as plastics and polyester.</li> <li>Each material has its own set of properties. These properties make different materials useful for different purposes.</li> <li>Melting, freezing, evaporating, condensing and dissolving are examples of reversible physical changes. These are physical changes because no new materials are created. They are reversible changes because they can be changed back or reversed.</li> </ul>  <p>Irreversible changes often result in a new product being made from the old materials (reactants). For example, burning wood produces ash. Mixing vinegar and milk produces casein plastic.</p>	<ul style="list-style-type: none"> <li>To compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.</li> <li>To give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</li> <li>To explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible.</li> </ul>  <p>Reversible changes, such as mixing and dissolving solids and liquids together, can be reversed by:</p> <table border="1" data-bbox="955 763 1528 1078"> <tr> <td><b>Sieving</b> </td> <td><b>Filtering</b> </td> <td><b>Evaporating</b> </td> </tr> <tr> <td>Smaller materials are able to fall through the holes in the sieve, separating them from larger particles.</td> <td>The solid particles will get caught in the filter paper but the liquid will be able to get through.</td> <td>The liquid changes into a gas, leaving the solid particles behind.</td> </tr> </table>  <p><b>Dissolving</b> A solution is made when solid particles are mixed with liquid particles. Materials that will dissolve are known as soluble. Materials that won't dissolve are known as insoluble. A suspension is when the particles don't dissolve.</p> <p>Sugar is a soluble material. </p> <p>Sand is an insoluble material. </p>	<b>Sieving</b> 	<b>Filtering</b> 	<b>Evaporating</b> 	Smaller materials are able to fall through the holes in the sieve, separating them from larger particles.	The solid particles will get caught in the filter paper but the liquid will be able to get through.	The liquid changes into a gas, leaving the solid particles behind.	<p><b>Materials:</b> The substance that something is made from, e.g. wood, plastic, metal.</p> <p><b>Solids:</b> One of the three states of matter. Solid particles are very close together, meaning solids, such as wood and glass, hold their shape.</p> <p><b>Liquids:</b> This state of matter can flow and take the shape of the container because the particles are more loosely packed than solids and can move around each other. Examples of liquids include water and milk.</p> <p><b>Gases:</b> One of the three states of matter. Gas particles are further apart than solid or liquid particles and they are free to move around. A gas fills its container, taking both the shape and the volume of the container. Examples of gases are oxygen and helium.</p> <p><b>Absorbent:</b> Able to soak up liquid quickly</p> <p><b>Condensing:</b> to change from a gas or vapour to a liquid.</p> <p><b>Dissolving:</b> To pass into a solution (to become fluid)</p> <p><b>Evaporating:</b> The process of turning from a liquid to a vapour.</p> <p><b>Residue:</b> A small amount of something that remains after the main part has gone, been taken or used.</p> <p><b>Reversible:</b> Able to be turned the other way round.</p>
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