

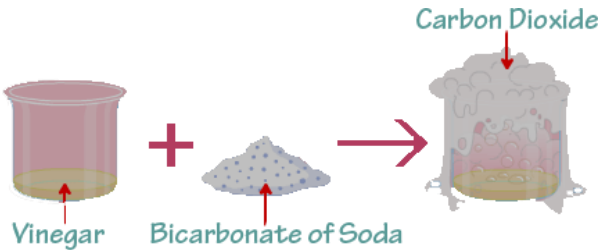



# Mighty Oaks: Material World 2 Knowledge Organiser

Subject vocabulary		Some changes that cannot be reversed.	Key facts to know by the end of this unit
<b>Irreversible change</b>	A change that cannot be undone. In an irreversible change, new materials are formed.	<ul style="list-style-type: none"> <li>When wood burns you cannot get it back again. It becomes smoke and ash.</li> </ul> 	When vinegar and bicarbonate of soda are mixed, a gas is produced.
<b>chemical change</b>	A change that happens when substances react with one another to create a different substance		When a candle is lit, although the wax melts first, it then releases a gas which burns, making this an irreversible change.
<b>Physical change</b>	An irreversible change where the appearance of the substance changes in some way	<ul style="list-style-type: none"> <li>When iron rusts this change is irreversible.</li> </ul> 	Adding water to casting powder (plaster of Paris) causes a chemical change. Heat is released and the liquid hardens to a solid
<b>gas</b>	A gas does not keep its shape. It spreads out to fill whatever space or container it is in and can be squashed. Gases are often invisible		Cooking causes an irreversible change caused by heat. Often liquids can become solids, such as flour, salt and water being baked to create salt dough or cooking an egg.
<b>solid</b>	A solid keeps its shape and does not spread out and always takes up the same amount of space		You can spot an irreversible change by looking for: <ul style="list-style-type: none"> <li>Fizzing or bubbling to show a gas is produced</li> <li>The colour changes</li> <li>A liquid becomes solid (heating will not return it to a liquid)</li> <li>A smell is produced</li> <li>The substances become warmer or cooler.</li> </ul>
<b>liquid</b>	Liquids change their shape according to the container they are in	<h2>Cooking Eggs</h2>  <p>uncooked egg → cracked egg → whisked egg → cooked egg</p>	
<b>burning</b>	An irreversible change caused by extreme heat / fire.	<p>Cooking eggs is an example of an <b>irreversible change</b>.</p> <p>It does not matter how the egg is cooked, the change will always be <b>irreversible</b>.</p>	