
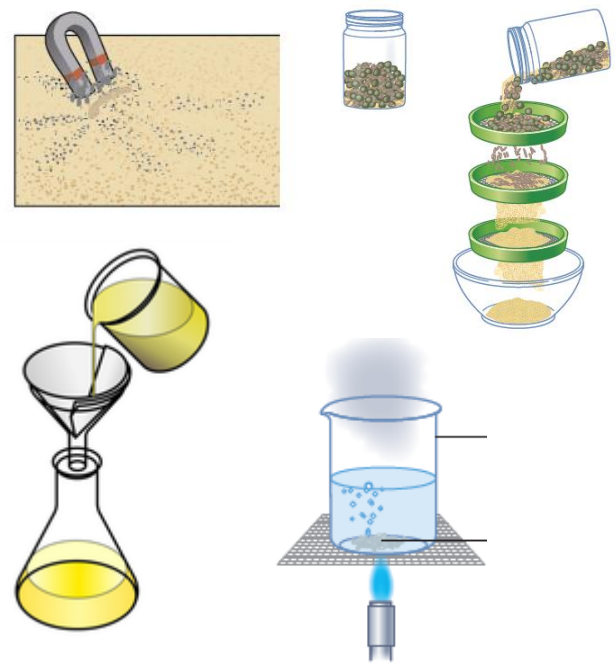
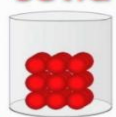


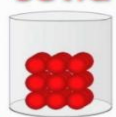


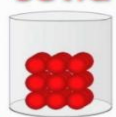




YEAR 5 SCIENCE – CHANGES IN MATERIALS (Summer 1)

Tier 3 Vocabulary	Knowledge Facts	Recommended Reads			
States of matter – solids, liquids, gasses	On Earth, all matter exists as a solid, liquid or a gas. Some materials can change between these states, usually by heating or cooling.				
Substance – material matter with specific chemical composition.	Depending on the type of materials, a mixture can be separated by sieving, filtering, evaporating or using magnets.				
Mixture – a mix of two or more different chemical substances.	Not all materials are soluble. Temperature affects the speed of dissolving.				
Sieving – A method of separating different sized particles.	A dissolved solid can be removed or recovered from a liquid (solvent) by the process of evaporation.				
Filtering – A method of removing small particles of undissolved material from a liquid.	A physical change in a material is reversible , e.g. melting, solidifying, freezing, evaporating, condensing.	Separating Mixtures			
Evaporating – The process of changing a liquid to a gas, usually involving heat.	A chemical change in a material is irreversible – a chemical reaction occurs. E.g. burning, cooking, rusting.				
Soluble – A material or substance that is able to dissolve in a liquid.	<p>National Curriculum End Points</p> <p>Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>Explain that some changes result in the formation of new materials and that this kind of change is not usually reversible, including changes associated with burning and the action on bicarbonate of soda.</p>				
Saturated – When a liquid solution can dissolve no more of the substance (solute).					
Reversible – A change that can be undone or reversed.					
Irreversible – A change that cannot be undone or reversed.					
Physical change – a material change in which a different substance is NOT formed.					
Chemical change – a material change where a chemical reaction occurs: a different substance is formed.					
Chemical reaction – a process by which one or more substances are changed into different substances.					
	<p>States of Matter</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 33%; border-right: 1px solid black;"> <p style="color: red; font-weight: bold;">solid</p>  <ul style="list-style-type: none"> ● rigid ● fixed shape ● fixed volume </td> <td style="text-align: center; width: 33%; border-right: 1px solid black;"> <p style="color: blue; font-weight: bold;">liquid</p>  <ul style="list-style-type: none"> ● not rigid ● no fixed shape ● fixed volume </td> <td style="text-align: center; width: 33%;"> <p style="color: green; font-weight: bold;">gas</p>  <ul style="list-style-type: none"> ● not rigid ● no fixed shape ● no fixed volume </td> </tr> </table>	<p style="color: red; font-weight: bold;">solid</p>  <ul style="list-style-type: none"> ● rigid ● fixed shape ● fixed volume 	<p style="color: blue; font-weight: bold;">liquid</p>  <ul style="list-style-type: none"> ● not rigid ● no fixed shape ● fixed volume 	<p style="color: green; font-weight: bold;">gas</p>  <ul style="list-style-type: none"> ● not rigid ● no fixed shape ● no fixed volume 	
<p style="color: red; font-weight: bold;">solid</p>  <ul style="list-style-type: none"> ● rigid ● fixed shape ● fixed volume 	<p style="color: blue; font-weight: bold;">liquid</p>  <ul style="list-style-type: none"> ● not rigid ● no fixed shape ● fixed volume 	<p style="color: green; font-weight: bold;">gas</p>  <ul style="list-style-type: none"> ● not rigid ● no fixed shape ● no fixed volume 			