


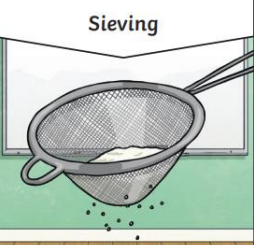
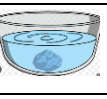



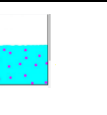

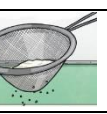


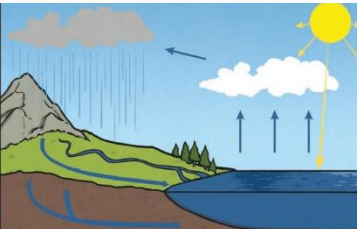
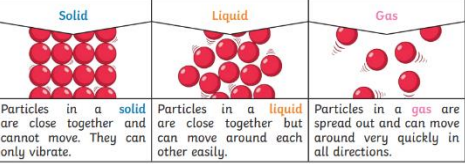


Year 5- Autumn 2- Separating Mixtures - If you mix two things together, can they always be separated?

Key Vocabulary		Prior knowledge	Sticky Knowledge						
Materials 	The substance that something is made out of, e.g. wood, plastic, metal.	In year 4 we : <ul style="list-style-type: none"> - Compared and grouped materials together, according to whether they are solids, liquids or gases - Observed that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) - Identified the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	Reversible changes, such as mixing and dissolving solids and liquids together, can be reversed by:						
Substance 	any solid, liquid, powder or gas.		Smaller materials are able to fall through the holes in the sieve, separating them from larger particles.						
Soluble 	The liquid that is produced after you have dissolved a solid into another liquid.	Particles in a solid are close together and cannot move. They can only vibrate.	Sieving 						
Insoluble 	When a solid is unable to dissolve into a liquid.	Particles in a liquid are close together but can move around each other easily.	Filtering 						
Dissolve 	The process that occurs when a solute is added to a solvent and the solute disappears.	Particles in a gas are spread out and can move around very quickly in all directions.	Evaporating 						
Solution 	The mixture of two or more substances, a solute dissolves in a solvent.	Particles in a solid are close together and cannot move. They can only vibrate.	The solid particles will get caught in the filter paper but the liquid will be able to get through.						
Evaporating 	When a liquid turns into a gas or vapour.	Particles in a liquid are close together but can move around each other easily.	The liquid changes into a gas , leaving the solid particles behind.						
Sieve 	When you separate a solid or a liquid by using a sieve.	Particles in a gas are spread out and can move around very quickly in all directions.	Dissolving 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.						
Filter 	to separate solids (that do not dissolve) from liquids.	Particles in a liquid are close together but can move around each other easily.	Sugar is a soluble material . Sand is an insoluble material .						
Mixture 	two or more substances mixed together without actually joining them so that they can be separated again.	Particles in a solid are close together and cannot move. They can only vibrate.	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.						
		Knowledge and Assessment <ul style="list-style-type: none"> - Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating - Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. 	Different materials are used for particular jobs based on their properties: electrical conductivity , flexibility, hardness, insulators , magnetism, solubility, thermal conductivity , transparency .						
			For example, glass is used for windows because it is hard and transparent . Oven gloves are made from a thermal insulator to keep the heat from burning your hand.						
			<table border="1"> <thead> <tr> <th>Solid (at room temperature)</th> <th>Liquid (at room temperature)</th> <th>Gas (at room temperature)</th> </tr> </thead> <tbody> <tr> <td>Wood Iron Copper Plastic</td> <td>water milk blood oil</td> <td>oxygen carbon dioxide nitrogen steam</td> </tr> </tbody> </table>	Solid (at room temperature)	Liquid (at room temperature)	Gas (at room temperature)	Wood Iron Copper Plastic	water milk blood oil	oxygen carbon dioxide nitrogen steam
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