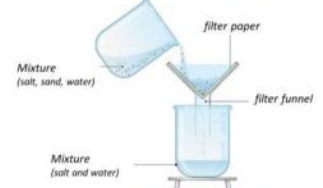
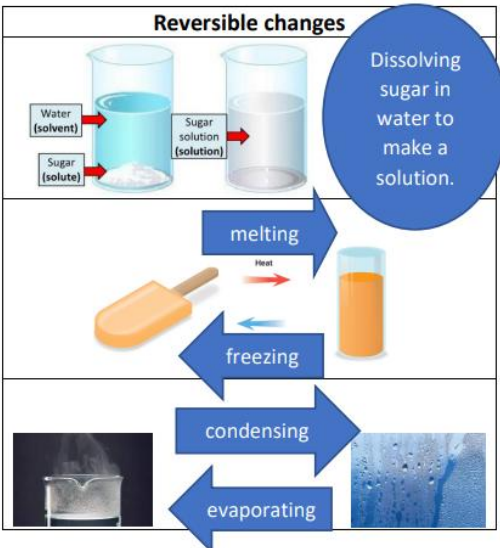


What do we know already:	Vocabulary:		
*I know solids keep their shape and have fixed volume. Liquids have fixed volume but change in shape to fit a container. *I know liquids can be poured. Gases fill all available space and have no fixed shape or volume. Solids like sand can be poured but form a heap, When water is heated it can change into steam which is water vapour not gas. *I know when water vapour cools it returns to its original state (liquid). *I know when water is cooled it can freeze to become ice (Solid). *I know how to group materials based on their properties using more complex vocabulary.	Tier 1	Tier 2	Tier 3
What's next: *I will learn to compare and group together everyday materials on the basis of their properties. *I will know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution *I will use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating *I will give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. *I will demonstrate that dissolving, mixing and changes of state are reversible changes *I will be able to 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 of acid on bicarbonate of soda	Condensation Evaporation Gas Liquid Melting Solid Transparent	Dissolve Filtering Insoluble Irreversible Particles Reversible Sieve Soluble Solution Temperature	Rate - the speed of which something happens.
			Permeable - a substance that a liquid or gas can pass through.
			State - The structure or condition of something.

How can we compare or group everyday materials?	What is dissolving?	How can we separate mixtures?	What are reversible changes?	What are irreversible changes?						
Materials can be grouped together based on their properties - • Hardness • Solubility • Transparency • Thermal Conductivity • Electrical Conductivity • Response to Magnets  magnetic  transparent  flexible  permeable  soluble  insoluble	• When the particles of a solid mix with the particles of a liquid, this is called dissolving. • The result is a solution. • Materials that dissolve are soluble. • Materials that do not dissolve are insoluble.  dissolving  solution  soluble  insoluble	Separating materials Sieving separates the stones and twigs from the soil.  Filtering separates the sand from the mixture.  Evaporating separates the dissolved salt from the water. 	Some materials can be separated after they have been mixed based on their properties. Reversible changes 	When a mixture cannot be separated back into the original components, this is called an irreversible change Non-reversible changes - these result in the formation of new materials <table><tr><td>Burning</td><td></td></tr><tr><td>Mixing vinegar and bicarbonate of soda</td><td></td></tr><tr><td>Rusting</td><td></td></tr></table>	Burning		Mixing vinegar and bicarbonate of soda		Rusting	
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