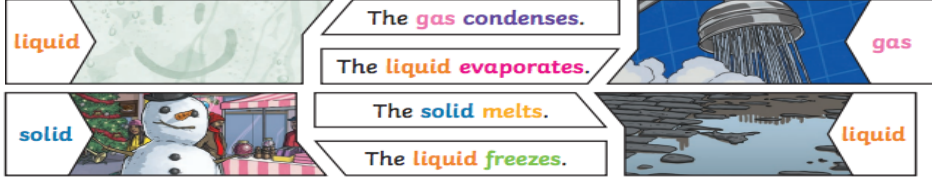
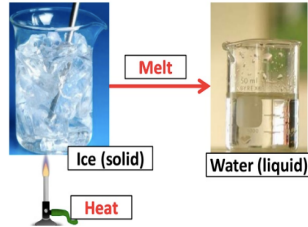
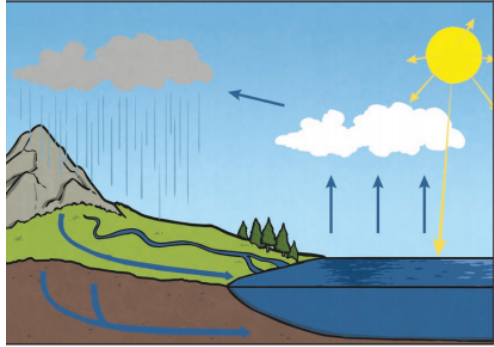


Year 4: States of Matter Learning Organiser

Subject Specific Vocabulary		Changing states	
states of matter	Materials can either be a solid, liquid or a gas.	 The gas condenses. The liquid evaporates. The solid melts. The liquid freezes. Solids melt to form liquids; liquids evaporate to form gases. Gases condense to form liquids; liquids freeze to form solids.	
solid	These are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. Solids take up the same amount of space no matter what has happened to them.		
liquid	Liquids can take the shape of their container. Water is an example of a liquid.		
gas	Gases spread out completely and fill their container or room. You cannot always see gases with your eyes. Oxygen is an example of a gas.		
change of state	This is when materials change between solids, liquids and gases.	 If a solid is heated to its melting point, it melts and changes to a liquid. This is because the particles start to move faster and faster until they are able to move over and round each other.  We can see evaporation when we a kettle boil or a puddle dries up.	 When freezing occurs, the particles in the liquid begin to slow down as they get colder and colder. They can then only move gently on the spot, giving them a solid structure.  We can see condensation, if we have a hot shower and water meets the surface of a cold mirror
heated	This is when energy is given to the particles from a heat source such as fire.		
cooled	This is when particles start to lose their energy.		
temperature	A measure of how hot or cold a substance is. Temperature is normally measured in degrees Celsius.		
evaporation	This is when liquid water turns into a gas known as water vapor or steam.	Condensation and evaporation occur within the water cycle. 	There are three stages in the water cycle: 1. The sun's heat causes water to evaporate from the puddles, lakes and the surfaces of the seas and oceans. The liquid water turns into water vapor (a gas). 2. This water vapor rises and then cools to form water droplets within the clouds (this process is condensation). 3. When the clouds get too heavy, the water falls as either rain, sleet, hail or snow depending on the temperature on Earth.
condensation	This is when water vapor cools down and then turns back into water droplets.		