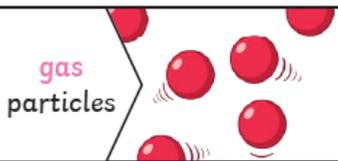
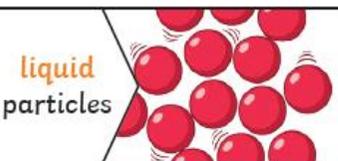
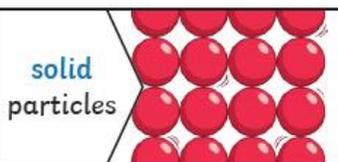


WATER WORLDS – Properties of Materials - UKS2

Key Vocabulary	
materials	The substance that something is made out of, e.g. wood, plastic, metal.
solids	One of the three states of matter. Solid particles are very close together, meaning solids , such as wood and glass, hold their shape.
liquids	This state of matter can flow and take the shape of the container because the particles are more loosely packed than solids and can move around each other. Examples of liquids include water and milk.
gases	One of the three states of matter. Gas particles are further apart than solid or liquid particles and they are free to move around. A gas fills its container, taking both the shape and the volume of the container. Examples of gases are oxygen and helium.
melting	The process of heating a solid until it changes into a liquid .
freezing	When a liquid cools and turns into a solid .
evaporating	When a liquid turns into a gas or vapour.
condensing	When a gas , such as water vapour, cools and turns into a liquid .



Key Knowledge
Reversible changes, such as mixing and dissolving **solids** and **liquids** together, can be reversed by:

Sieving	Filtering	Evaporating
Smaller materials are able to fall through the holes in the sieve, separating them from larger particles.	The solid particles will get caught in the filter paper but the liquid will be able to get through.	The liquid changes into a gas , leaving the solid particles behind.

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.

Sugar is a soluble **material**.

Sand is an insoluble **material**.



Changes of State

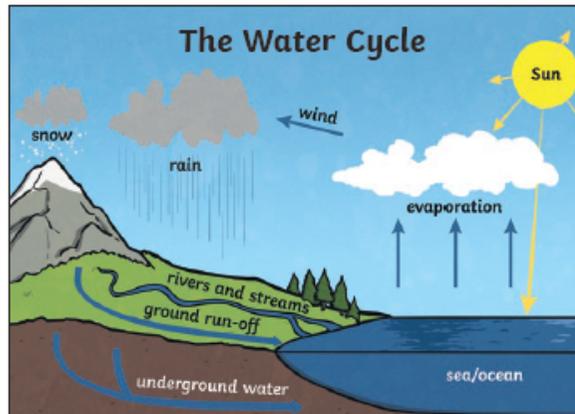
solid	The solid melts.		liquid
liquid	The liquid freezes.		solid
liquid	The gas condenses.		gas
gas	The liquid evaporates.		gas

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.

WATER WORLDS – Rivers – UKS2

Key Vocabulary

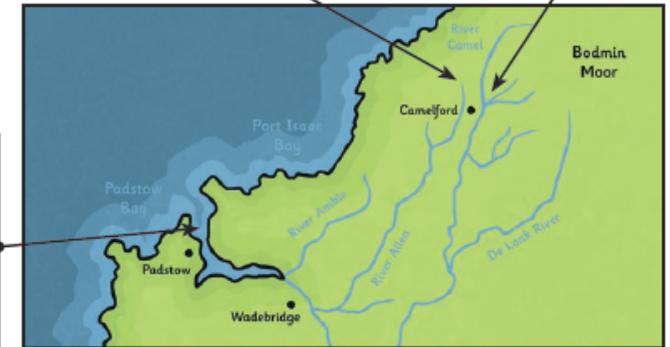
channel	The course in the ground that a river or water flows through.
dam	A barrier built to hold back water.
deposition/ deposit	When rocks and other materials that have been eroded are dropped off further along the river.
discharge	The amount of water flowing along a river per second.
erosion	Rocks and other river materials are picked up by the water and moved to another place along the river.
mouth	The point where a river joins the sea.
source	The place where a river begins.
tidal bore	A strong tide from the coast that pushes the river against the current causing waves along the river.
tributaries	Rivers that join up with another river.
valley	A long ditch in the earth's surface between ranges of hills or mountains.



Rivers in England, at their **mouth**, will flow into either the: North Sea, Irish Sea, English **Channel** or Atlantic Ocean.

Some rivers join up with other rivers (**tributaries**). The point where they meet is called a **confluence**.

The **source** of most rivers is on high ground or in the mountains.



The Course of a River

The Upper Course

Rain falling on high ground collects in **channels** and flows downwards forming a stream. Streams run downhill and join other streams, increasing in size and speed, forming a river. The river here flows quickly and the channel has steep sides and runs through **valleys**. Features include - waterfalls and rapids.

The Middle Course

Fast flowing water causes **erosion** making the river deeper and wider. Features include - meanders.



The Lower Course

Rivers flow with less force due to being on flat land. The river **deposits** the eroded material that it has carried. Riverbanks have shallower sides. Features include - floodplains, deltas and estuaries.