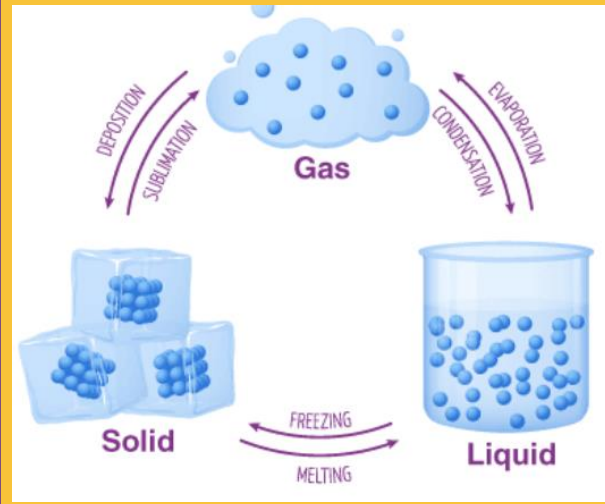


How can chemistry help us to escape Alchemy Island?

Key Vocabulary:

dissolving	When a solid is mixed into a liquid and becomes a solution.
evaporating	When a liquid turns into gas due to heat.
condensation	The change of state from gas to liquid.
reversible reaction	When changes to a material can be reversed.
irreversible reaction	When a change can't be reversed because a new product has been made.
solution	A solution is a mixture of two or more substances that are evenly mixed.
mixture	A combination of two or more chemical components that are not chemically linked

Diagrams:



Key Facts:

Heating and cooling can change the state of the material.

A mixture is when two or more substances are mixed and remain present.

A solution is created by dissolving materials in a liquid.

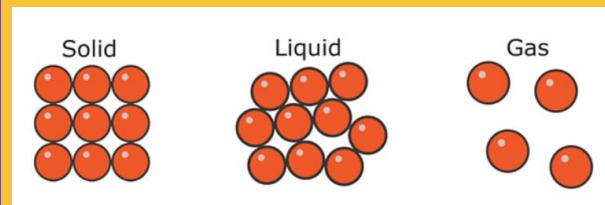
Heating can cause materials to change permanently. When this happens, a new substance is made.

When a substance dissolves, it might look like it has disappeared, but it is just mixed with the water to make a transparent liquid.

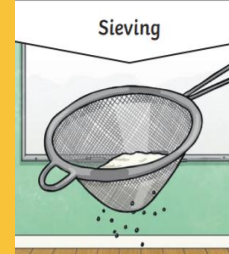
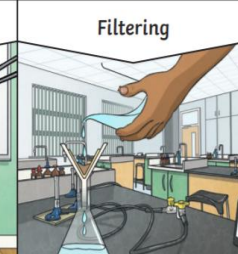
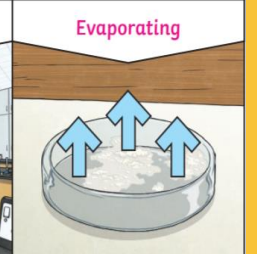
What I should already know:

- Objects can be grouped by whether they are solid, liquid or gas.
- Materials can be compared and grouped based on their states of matter.
- States of matter can be changed through heating and cooling.
- Evaporation and condensation are part of the water cycle.

Three states of matter:



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.