

Science Topic: States of Matter

Year 4 Autumn 2



Prior Learning

In Years 1, 2 and 3, we learnt that everything in the world is made out of particles and that different combinations of particles create different materials. We found out that when forces are applied, they can change the shape of something. We also learnt about weather and measuring temperature using a thermometer, and that when it gets cold, water can become ice.

What? (Key vocabulary)

Bond	A force that connects or holds two things together.
Evaporation	A change that occurs when a liquid is heated and turns into a gas.
Condensation	A change that occurs when a gas is cooled and turns into a liquid.
Precipitation	The process in which water falls to the ground from clouds as rain, hail, sleet or snow.
Water Cycle	The way in which water moves around the planet by changing its material state.
Reversible Change	A change that can be turned back into its original form by a reverse process, e.g. melting and freezing.
Sublimation	A change that occurs when a material changes from a solid to a gas or the other way round without becoming a liquid at all.
Solid	A material that has particles bonded closely together which move very little. This means the material holds its shape well.
Liquid	A material that has particles bonded more loosely together which means they can move around each other. This means the material can flow and be poured.
Gas	A material that has particles with few or no bonds which means they can move freely about. This means the material will take up as much room as is available.

Who? (Significant people)

Steve Graham	Researches how we can use satellites to track the water cycle to provide fresh water sources for everyone.
Dr. Soroush Abolfathi	Researches how to stop pollutants getting in the water cycle and how to create solutions to flooding.