



Year 4 States of Matter (Two half terms)

Prior Learning: Children will have learned that solid objects can be changed by squashing, bending, twisting and stretching.

Concept: Materials

We will be exploring the different states of matter and investigating how they can change state.



Working scientifically:



4. TWAL to investigate if temperature effects the rate of evaporation

Experiment time! We will plan and set up an experiment to investigate how temperature effects how quickly evaporation occurs. We will measure the time it takes and discuss results as a class.



1. TWAL identify solids, liquids or gases

Today we will start by looking at different materials, sorting them into groups of our choice. Then we will learn the properties of solids, liquids and gases to help us sort materials into these groups.



Solids: take up same amount of space.

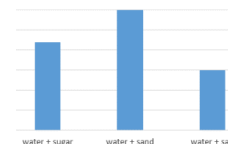
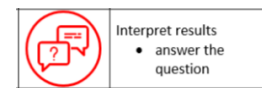
Liquid: Change shape to their container.

Gas: Move everywhere and fill up containers.



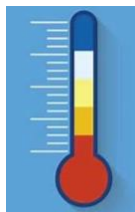
5. TWAL to record, present and interpret results

Today we will investigate how other factors effect ice melting from a solid to a liquid by asking what the council put in grit. We will set up an experiment and record our using computers and create bar charts to interpret as a class.



2. TWAL that materials change state at different temperatures

Today we will learn that solids can change to liquids when heated and that liquids can be changed to a solid when cooled. We will explore this by experimenting with melting ice.



That solid changes to liquid when heated and reversed when cooled.

6. TWAL identify the part played by evaporation and condensation in the water cycle

We will spend a **few lesson** finding out how evaporation and condensation take part in the wider world. We will investigate this by creating our own mini water cycles to see if it helps plants grow.



Water is recycled around the world in the water cycle.



3. TWAL that materials change state

We will then learn more about how materials change state, focusing on condensation and evaporation. We will explore this by observing the rain in a jar experiment!



Condensation - gas to liquid, Evaporation - Liquid to gas

Words we will know!

