

Year 3/4 States of Matter Knowledge Organiser



What do I already know ?

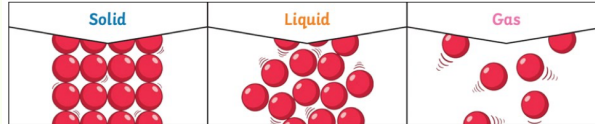


- I know the difference between an object and the material that it is made from. (Y1)
- I can compare and group materials based on their physical properties. (Y1)
- I can explain the suitability of a material. (Y2)
- I can measure the temperature of something using a thermometer.
- I can change the shape of some solid objects by twisting, stretching, squashing and bending. (Y2_)

Gems of knowledge



- I know that there are three states of matter:

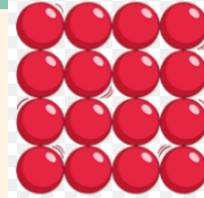
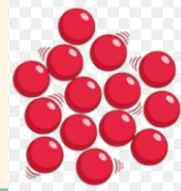






- I can identify whether a material is a solid, liquid or gas.
- I know that some materials change state when they are heated or cooled.
- I can explain what 'evaporation' and 'condensation' is and identify what role they play in the water cycle.

How will I work like a Scientist?



Set up simple and practical enquiries, comparative and fair tests with some support (Y3- with some support).

Key vocabulary	Picture	Meaning
Solid		Materials that keep their shape unless a force is applied to them.
Liquid		A substance that takes the shape of their container. They can be poured.
Gas		A substance that does not have a fixed shape and can spread out.
Evaporation		When a liquid changes state to a gas, usually by heating.
Condensation		When a gas changes state to a liquid, usually by cooling.
Melting		When a solid changes state to liquid, usually by heating.

Significant Scientist



Anders Celsius was a Swedish astronomer who created a temperature scale. This was divided into small parts called degrees.

This was later updated by Carl Linnaeus who put 0 degrees as the freezing point of water and 100 degrees as the boiling point.



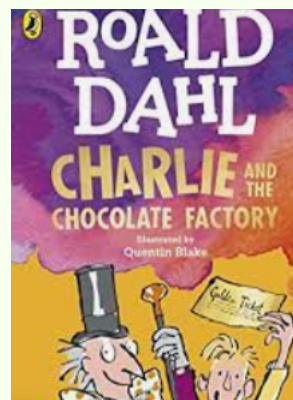
Careers in Chemistry



Chemists are scientists that mix chemicals to try and create medicines to cure people of their illnesses.

Dentists deal with different solids, liquids and gases everyday.

Read me!



Charlie and the Chocolate Factory by Roald Dahl.

The Storm Whale in Winter by Benji Davies.

https://www.youtube.com/watch?v=Qu_iqMYt7cQ

