

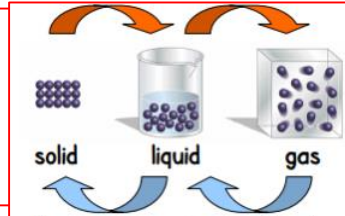
Key Knowledge - changes can be reversible or irreversible

Year 5 Science - Changing Materials



Key knowledge

When ice is **heated** it melts into water and then evaporates into water vapour (or steam)



When water vapour is **cooled** it condenses to water and then, with more cooling, it freezes (solidifies) into ice

Solid - keeps its shape. Particles don't move much and don't change place



Liquid - can be poured, fills the bottom of the container it's in. The particles move and can change places



Gas - fills the space it's in. The particles have lots of energy and can roam. A gas can be compressed



Key knowledge - Separating mixtures



Iron and steel can be removed with a **magnet**

Salt can be separated when the water **evaporates**



Sieving allows us to separate big particles from little ones



You can clean dirty water by **filtering** it

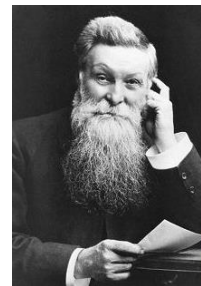
Significant scientists

Melitta Bentz was a German woman who invented the first coffee filter around 1909



Percy Julian was born in America in 1899. He was a chemist who invented a range of products from soy-beans. He made paints, fire retardant foam and medicines

John Dunlop was a Scottish vet and inventor who experimented with rubber and invented pneumatic tyres in 1885



Key vocabulary

Substance	Is a solid, liquid or gas
dissolve	If a substance dissolves in liquid or if you dissolve it, it becomes mixed with the liquid and disappears eg when sugar disappears in water
solution	Is a liquid in which a solid has been dissolved eg salt in water
soluble	A substance that is soluble will dissolve in a liquid
insoluble	A substance that will not dissolve in a liquid eg flour doesn't dissolve in water
evaporation	When a liquid is heated it changes into a vapour
condensation	Small drops of water which form when water vapour touches a cold surface
reversible	Things can be changed back to the way they were before eg melting wax
irreversible	Things cannot be changed back to the way they were before eg burning toast