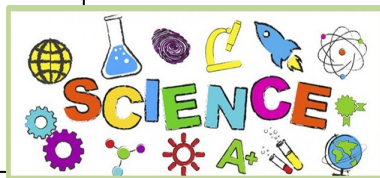




Don'ts

Do not touch and be extra careful when experimenting with boiling water, steam,



Applying Past Knowledge

This links to the work in Year 1 and 2 'Everyday Materials' and builds on what you learnt about the water cycle in Year 3.

Lin Lanying was a Chinese electrical engineer, materials scientist, physicist and politician.

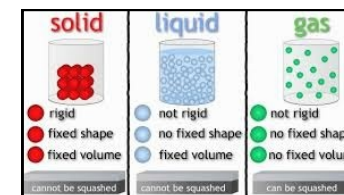


1. What state of matter are you?

Solid is the state in which matter maintains a fixed volume and shape.

Liquid is the state in which matter adapts to the shape of its container.

Gas is the state in which matter expands to occupy the volume and shape of its container.



Vocabulary

air	is the invisible gaseous substance surrounding the earth, a mixture mainly of oxygen and nitrogen
oxygen	is a non-metal element that is a gas at room temperature.
temperature	is a degree of hotness or coldness that can be measured using a thermometer.
Degrees Celsius	is a temperature scale. It is used to tell how hot or cold something is
melting point	is the temperature at which a substance goes from the solid state to the liquid one.
boiling point	is the temperature at which a liquid boils and turns to vapour. (Changing state from liquid to gas.)

2. How are ice, water and vapour linked?

Substances can change state, usually when they are heated or cooled. For example, liquid water turns into steam when it is heated enough, and it turns into ice when it is cooled enough.

Vocabulary:

Water a liquid that covers over two thirds of the Earth.

Ice is the common name for frozen water. Water becomes ice when it is very cold.

Steam is a vapour arising from a heated substance.

Melt is if ice (solid) is heated, it changes to water (liquid)

Freeze is the process when a liquid turns into a solid.

3. How does water change state?

Water changes state at different temperatures.

0 degrees Celsius – freezing point
100 degrees Celsius – boiling point

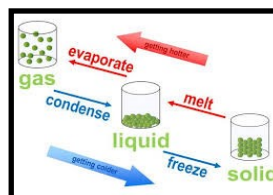


4. How can I change the state of this?

Understanding that different solids have different melting points.

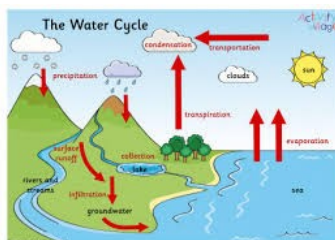
6. What happens to the mirror in a bathroom when you have a shower?

Condensation is the process when hot gas meets a cold surface. This causes gas to change state into liquid.



When do evaporation and condensation happen in the water cycle?

The water cycle is the journey water takes, from land to the sky and back again. The cycle consists of evaporation, condensation, precipitation



5. How can I make my washing dry quicker

Evaporation is when a liquid becomes a gas without forming bubbles inside the liquid volume. Investigate the conditions which would speed up the process.