

Y4: States of Matter

Key Vocabulary

states of matter	Materials can be one of three states: solids, liquids or gases. Some materials can change from one state to another and back again.
solids	These are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. Solids take up the same amount of space no matter what has happened to them.
liquids	Liquids take the shape of their container. They can change shape but do not change the amount of space they take up. They can flow or be poured.
gases	Gases can spread out to completely fill the container or room they are in. They do not have any fixed shape but they do have a mass.
water vapour	This is water that takes the form of a gas. When water is boiled, it evaporates into a water vapour.
melt	This is when a solid changes to a liquid.
freeze	Liquid turns to a solid during the freezing process.
condense	Turn a gas into a liquid by cooling it down
evaporate	Turn a liquid into a gas by heating it up.

What should I already know?

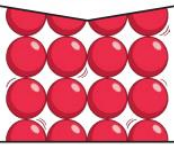
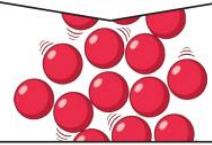
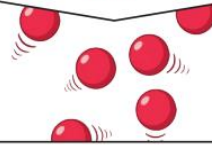
Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.

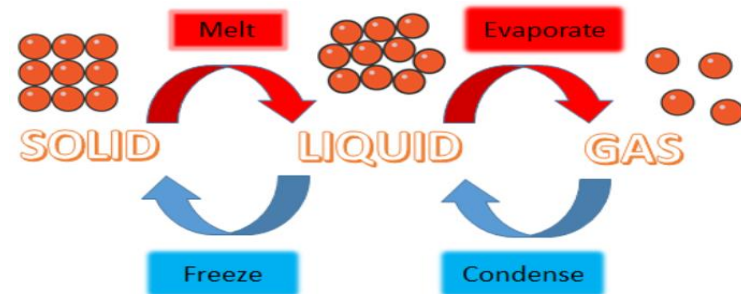


How to describe simple physical properties of a variety of everyday materials. Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Some solid materials can be changed by squashing, bending, twisting and stretching.

Key Knowledge

- Water freezes at 0 degrees Celsius.
- There are 3 states of matter:

Solid	Liquid	Gas
		
Particles in a solid are close together and cannot move. They can only vibrate.	Particles in a liquid are close together but can move around each other easily.	Particles in a gas are spread out and can move around very quickly in all directions.



The Water Cycle

1. Water from lakes, puddles, rivers and seas is evaporated by the sun's heat, turning it into water vapour.
2. This water vapour rises, then cools down to form water droplets in clouds (condensation).
3. When the droplets get too heavy, they fall back to the earth as rain, sleet, hail or snow (precipitation).

