

Year 4 Spring 1 Knowledge Organiser – Science

States of Matter



Science study

INTRODUCE
STATES OF MATTER



Year 4

Spring
Term 2

matter

something that takes up space, despite its size or composition

ice
water
air

state

one of the distinct ways **matter** exists

solid
liquid
gas

How we measure temperature



Celsius

unit of measurement for temperature °C



100°C = water boils



0°C = water freezes

The science of PARTICLES

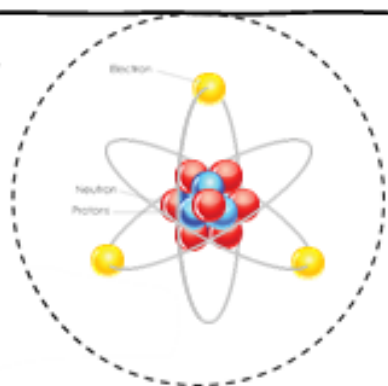
ALL **matter** is made from

atoms

smallest known part of any material

particle

atoms
are made of
protons (+)
neutrons
electrons (-)



solid



has its own shape

- it can't flow
- has a fixed volume
- particles **very close** and have a fixed position

tricky ones

a football is a solid
sand is a solid
fabric is a solid

liquid



takes the shape of the container

- can flow
- has a fixed volume
- particles **very close** but **not fixed**

water is a liquid
blood is a liquid

gas



will escape from a container

- can flow
- no fixed volume
- particles **moving apart** quickly

water vapour is a gas
air is a mixture of gases
carbon dioxide is a gas

rises up as **water vapour**

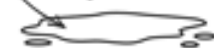
turns into a gas

water **evaporates**

evaporation

example

water heated by the sun



condensation
example

water vapour

cools and **condenses**

gas returns to a liquid

water droplets form



