

Science – States of Matter – Autumn Term 1

Key Vocabulary

Matter.	Stuff that makes up everything.
Particles	Tiny bits everything is made of.
Evaporation	to turn from a liquid into a gas.
Condensation	droplets of water that form when water vapour cools down
melting	to change from a solid to
freezing	to become solid from cold temperatures.
Water vapour	water in the form of gas, also called steam.
precipitation	water falling to earth in the form of rain, snow, sleet, or hail.
process	a series of changes or actions that happen one after another
Water cycle	the process by which the earth's water evaporates, condenses in the atmosphere and returns to earth as precipitation.

Core Knowledge

- All matter is made up of tiny particles which are so small we cannot see them with our eyes. There are three states of matter: solids, liquids, and gases.**

Solids

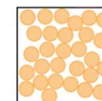
- Closely packed particles in a fixed pattern, vibrate in place.
- Fixed shape and volume; can't be squashed.



Examples: Ice, wood, rock.

Liquids

- Particles are close but can slide past each other.
- Fixed volume - takes shape of container; flows.



Examples: Water, juice.

Gas

- Particles are far apart, move freely and quickly.
- No fixed shape or volume. Fills entire container; easily squashed.



Examples: Air, steam (water vapour).

- Key changes of state include melting (solid to liquid), freezing (liquid to solid), evaporation (liquid to gas), and condensation (gas to liquid)
- Water has a boiling point of 100 degrees, however it both freezes and melts at 0 degrees.
- The water cycle is a natural process which occurs when water in seas and oceans are heated by the sun, causing them to evaporate into the sky. Once the water vapour has cooled it condenses and forms clouds. Eventually when the clouds are too full of water droplets precipitation occurs and rain, sleet, hail or snow falls and finds its way back to the water source.



Prior Knowledge

Year 1: Everyday materials. Year 2: Uses of everyday materials

Diagrams

