



St Leo's and Southmead
Catholic Nursery and Primary
School

Year
Four

Science Knowledge Organiser

Spring
Term 1

Amazing Activities

- Investigating how ice changes from water to ice; chocolate melts and then becomes solid as it cools; make cakes

States of Matter

Key Concepts

solid	liquid	gas
● rigid	● not rigid	● not rigid
● fixed shape	● no fixed shape	● no fixed shape
● fixed volume	● fixed volume	● no fixed volume
cannot be squashed	cannot be squashed	can be squashed

Put the following objects in the correct box.

States of Matter

Solids: ocean, pencil, tornado, apple, book, soap

Liquids: sun, juice, evaporation

Gases: rain, wind

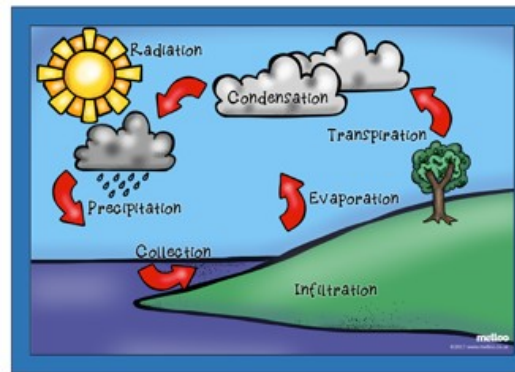
Changing State



Objectives

Pupils should be taught to:

- compare and group materials together, according to whether they are solids, liquids or gases
- observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
- identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with tem-



Curriculum Links

- Geography Link:** Children to link work on the water cycle to weather
- Maths Link:** Opportunities data handling work using the information collected during Investigations.

Key Vocabulary

Matter	Particles within all materials determine if something is a solid, liquid or gas
Solid	A solid can hold its shape (for example, water in solid form is ice).
Liquid	A liquid like water forms a pool: it flows or runs but it can't be stretched or squeezed.
Gas	A gas can flow, expand and be squeezed; if it is in an unsealed container it escapes (water in gas form is steam).
Rigid	Not flexible and cannot change shape
Observe	To watch carefully how something happens or changes
Radiation	The energy / heat produced by the sun
Precipitation	formation of water droplets, as water vapor in the air condenses, that are large enough to start to fall
Evaporation	water then evaporates back into the air as it warms u
Transpiration	Water evaporates from the ground
Condensation	happens when the vapour in the air gets cold and it gets transformed back into a liquid form

Nurture, Inspire, Succeed