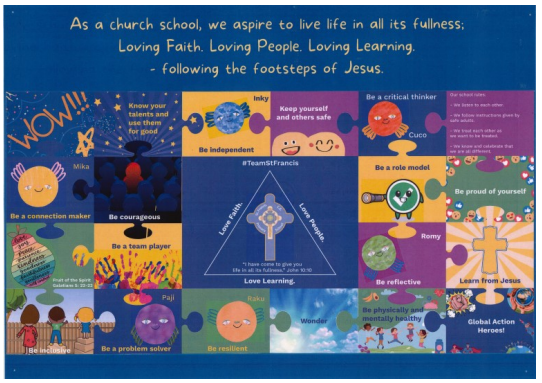
Knowledge Organiser

Year 4—States of Matter

How does it rain?



Vocabulary

Solid	having a firm shape or form that can be measured in length, width, and height; not like a liquid or a gas.
Liquid	in a form that flows easily and
Gas	a form of matter that is neither liquid nor solid. A gas rapidly spreads out when it is warmed and contracts when it is cooled.
State	the condition of a person or
Particles	a tiny amount or small piece;
Degrees Celsius	relating to a temperature scale on which water freezes at zero degrees and boils at one hundred degrees.
Evaporation	to turn from liquid into gas;
Condensation	the act or process of changing
States of matter	a way to describe the behaviour of particles in a substance
Melting	to change from a solid to a liquid state through heat or pressure.
Boiling	to change from a liquid to a gas
Freezing	to harden into ice or become
Substance	a particular kind of matter
Heat	a form of energy, or the state of being very warm; hotness; warmth.
Cool	to lower in temperature;
Increase	to make larger or greater; add to
Decrease	to become less or smaller.

What should I already know?

Year 2 Summer 2

Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, water, rock, paper and cardboard for particular uses

Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (applying a force)

Some materials can be found naturally; others have to be made.

Scientific skills and enquiry

Children might work scientifically by:

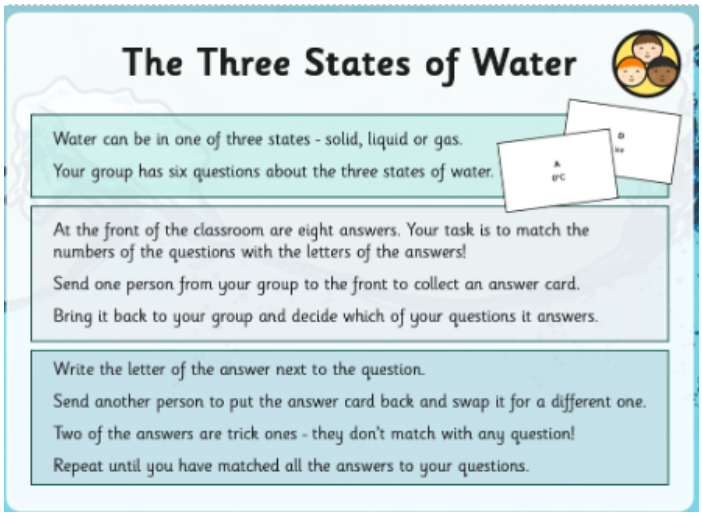
Observing and recording evaporation over a period of time, such as a puddle in the playground or washing on a line.

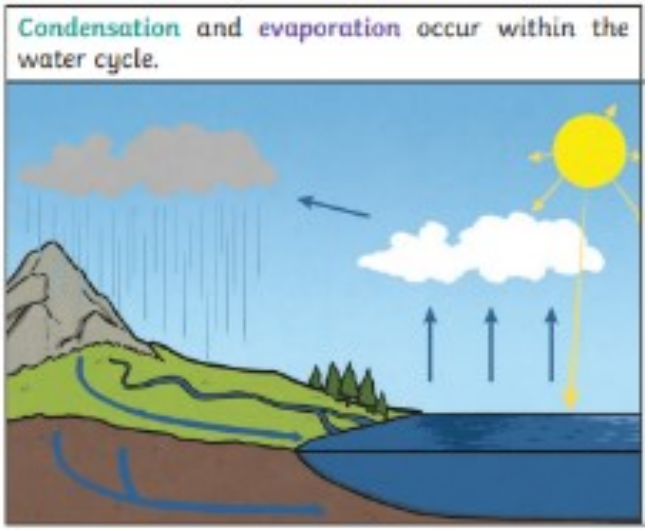
Investigating the effect of temperature on washing drying or snowmen melting.

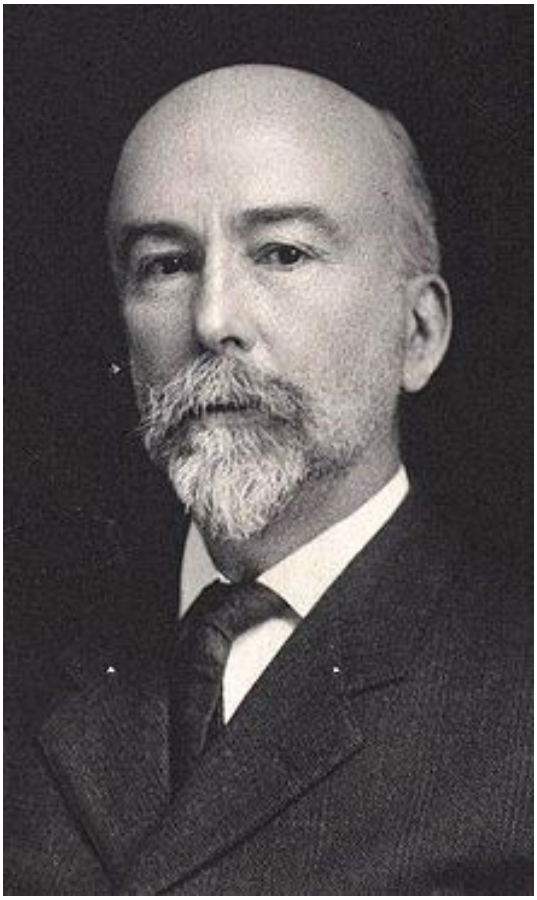
This unit provides an ideal opportunity for using data logging equipment to detect/measure and compare temperatures.

What will I know by the end of the unit?

Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.







Notable Scientist

William Morris Davies (1850—1934)

William was an American geographer, geologist, geomorphologist and meteorologist. He studied geology and geography at school. The year after graduating from University, he received a Master of Mining Engineering in the following year. He worked as a field assistant and was later hired to teach at Harvard University. Though his legacy lives on in geomorphology, he also advanced theories of scientific racism in his writings about physical geography.