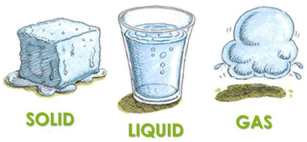
Woodley Primary School
Together we care, inspire and achieve

Woodley Primary School – Knowledge Organiser

Science Focus:	States of Matter	Year 4	Summer 1

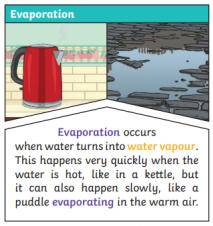
Key Vocabulary

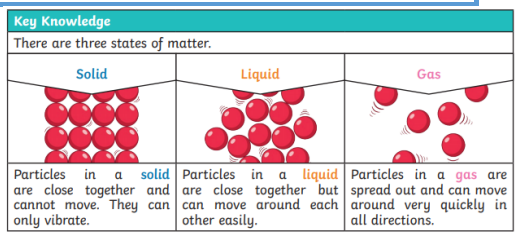
Spelling	Definition
Matter	Objects that take up space and have a mass and called matter. Everything around you is made up of matter.
Solid	A solid holds it shape and has a fixed volume.
Liquid	Liquids change their shape depending on the container they are in but they always take up the same amount of space. Their volume stays the same.
Gas	Gases do not have a fixed shape. They spread out and change their shape and volume to fill up whatever container they are in.
Evaporation	Changing from a liquid to a gas.
Condensation	Changing from a gas to a liquid
Temperature	Degree or intensity of heat present in a substance or object and shown by a thermometer or perceived by touch.
Celsius	A scale of temperature on which water freezes at 0 degrees and boils at 100 degrees under standard conditions.
Water Cycle	The journey of water from oceans to clouds to rain to streams to rivers and back into the ocean.
Precipitation	Liquid or solid particles that fall from a cloud as rain, sleet, hail or snow.
Freeze	Liquid turns to a solid during the freezing process
Condense	Turn a gas to a liquid

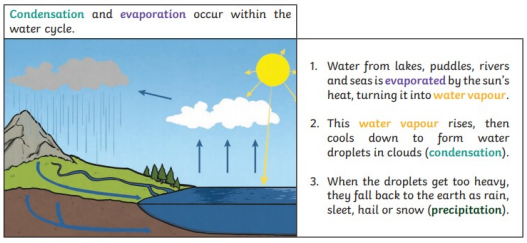


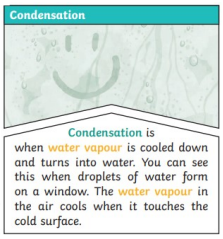
Prior Knowledge
What I should already know …

EYFS:	Children know about similarities and differences in relation to objects. They talk about the features of their own immediate environment and how environments might vary from one another.
Year 1:	Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties
Year 2:	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, 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



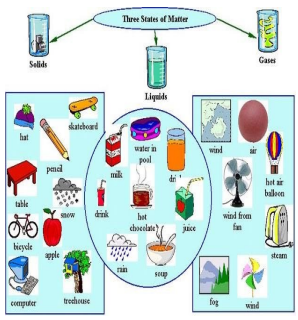






What I will know at the end of the unit

Objectives for the unit:	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 temperature.
Working Scientifically:	Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings.

Possible Experiences

(Any visits, experiments, guest speakers, curriculum days, home / school projects etc.)