

Brough Primary School – Curriculum Intention Plan 2021 - 2022



Subject: Science Year Group: Year 3/4		Area of learning: States of Matter (Year B)
Links to previous work/Remember when	<ul style="list-style-type: none"> • Year 1&2 – knowing the uses of a variety of everyday materials. • Year 1&2 – Knowing that some solid shapes can be squashed, bent, twisted and stretched. • Year 1&2 – Knowing the names of a variety of materials and knowing the simple physical properties of a variety of everyday materials. <p><u>Working Scientifically</u></p> <ul style="list-style-type: none"> • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions. 	
Term	Year 3/4	Key Skills to be taught
Summer 2022 What the children should know at the end of this series of lessons		<ul style="list-style-type: none"> • Compare and group materials together, according to whether they are solids, liquids and 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 the temperature. <p><u>Working Scientifically</u></p> <ul style="list-style-type: none"> • Ask relevant questions and use different types of scientific enquiries to answer them. • Set up simple practical enquiries and comparative and fair tests. • Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. • Gather, record, classify and present data in a variety of ways to help answer questions.

Vocabulary

Solid, liquid, state, matter, particle, grain, category, classify, group, evidence, Solidifying, freezing, melting, condensing, evaporating, particles, thermometer, temperature, Celsius, Fahrenheit, degrees, evaporation, condensation, precipitation, transpiration, particle, ice, rain, clouds, vapour, cycle.

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Sequence of learning	Objectives and suggested details provided by subject leader.
1	<ul style="list-style-type: none"> Compare and group materials together, according to whether they are solids, liquids or gases. <p style="color: red;">See PowerPoint in Y3/4 science for summer 1.</p>
2	<ul style="list-style-type: none"> Compare and group materials together, according to whether they are solids, liquids or gases. <p>A look at how different gases are used in everyday life for heating, cooking, spraying, scuba diving, flying, swimming and so on from www.bbc.co.uk</p> <p style="color: red;">Children should develop simple descriptions for S,L & Gs. They should know the difference between a pile (solids) and a pool (liquids)</p>
3	<ul style="list-style-type: none"> 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). <p style="color: red;">Avoid changes which include a chemical change and focus purely on the states of matter.</p>
4	<ul style="list-style-type: none"> Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 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). <p>BBC Bitesize info about fair testing from www.bbc.co.uk Water cycle song from www.YouTube.com Class clips - simple explanation of the water cycle from www.bbc.co.uk More complex explanation of water cycle using scientific language from www.metoffice.gov.uk</p>
5	Assessment Week - To present their learning in the role of a science expert, to visitors of the 'Science Fair'

Learning Outcome/product

Children to prepare an explanation of how water is the only naturally occurring material that exists as a solid, liquid and a gas on planet Earth. This should be linked to the water cycle, with diagrams and key vocabulary included.

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Assessment records	List only those children who have not achieved the expected outcomes.

Assessment records	List only those children who have exceeded the expected outcomes.

End of unit assessment task	
Explain how the water cycle works, detailing how water is present within the cycle as a solid, liquid and a gas.	