

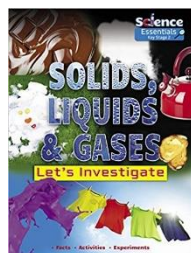
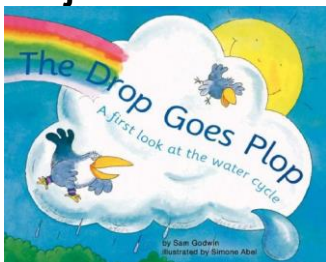
National Curriculum Objectives

- 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
- 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
- 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
- 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

Links to School Values:

Texts to support learning:

Non-fiction:



Key Knowledge and Vocabulary

Know and explain the definition of **solid** and a **liquid**.
 Know some of the **properties** of solids and liquids.
 Sort objects into solids and liquids and explain why they have placed an object into either group.
 Know that some solids, including rice and sand are pourable

Know and explain the scientific definition of a **gas**.
 Name some of the **properties** of gases.
 Know some of the ways that gases are used in everyday life and how their different properties make them useful for different purposes.
 Use their scientific knowledge to draw conclusions about an experiment's results

Know and describe the difference between the **particles** in solids, liquids and gases
 Know that some materials can change **state**
 Know and describe what **melting** is
 Know and describe what **freezing** is
 Know and describe what happens when liquids and solids freeze and melt

Know that different materials have different **freezing points/melting points**
 Use research skills to find the melting points of less common materials such as **gallium**, olive oil and gold.
 Evaluate an experiment's fairness and suggest improvements

Understand and describe the process of **evaporation** and describe everyday examples of water evaporating including puddles 'disappearing' and the cooling effect of sweat on our skin.

Know that evaporation involves a liquid turning into a gas.
 Know the **boiling point** of water.
 Know and understand the difference between evaporating and boiling.
 Understand and describe a way to increase the rate of evaporation

Know that **condensation** is the opposite of evaporation.
 Name each of the ways a material can change state.
 Describe condensation and know and understand when it happens

Know and describe what the **water cycle** is
 Name the different stages of the water cycle
 Know and understand the part played by evaporation and condensation in the water cycle.
 Know that evaporation and condensation are processes that can be **reversed**