

SCIENCE

STATES OF MATTER

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 temperature.

- How does the temperature of water affect the time for salt/sugar to dissolve?
- How does the amount of salt/sugar affect the time for water to evaporate?
- How does the type of filtering agent alter the cleanliness of water?
- What affects the time for sand particles to flow in an egg-timer?
- What happens when water is added to sand, salt and sugar, instant coffee, flour, and milk powder, custard powder, corn flour and icing sugar, plaster of paris, powder paint and dye.
- Does the temperature of the water affect how much solid will dissolve in it?

Work scientifically.

Grouping and classifying a variety of different materials;

Explore the effect of temperature on e.g. chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party).

Research the temperature at which materials change state, such as when iron melts or when oxygen condenses, using and applying what they have learnt in mathematics.

Observe and record evaporation over a period of time, such as a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.

Other teaching ideas

- Discussing, sorting and grouping familiar materials as solids or liquids.
- How many powders and how many liquids can you name?
- Discussing the difference between powders and liquids
- Handling Smarties and Treats to see how long they take to melt
- Time how long it takes ice to melt in different parts of the room
- Putting liquids in the freezer e.g. water, cooking oil, milk, sauce, salad cream
- Separating by sieving: Big beans from small bans, lentils from rice, rice from salt, sand from stones, solid particles in oven dried soils
- Discussing, explaining and learning the meaning of dissolve, soluble, insoluble and solution in relation to salt, sand and water.
- Filtering salt water and sand in water through paper
- Dissolving Race. Each team has a plastic bottle half full of water, and salt. One spoonful is added the teams see who can make the salt dissolve fastest
- Making a poster or collage showing solids and liquids and/or their properties.
- Draw a storyboard about the journey of water in the water cycle.
 1. Draw pictures which show eggs of condensation and evaporation.

COMPUTING

CODING OBJECTIVES – 6 stand alone CODING sessions across the half term.

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

E-safety Sessions Objective.

- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Blogging / Data Handling and Publishing delivered though day to day teaching of Literacy and Numeracy.

- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

AUTUMN 2 YEAR 4

OUR WONDERFUL WORLD

ARTS

Music – The Class Orchestra – Music for Christmas Mass

- Explore melodic patterns
- Begin to use notation for crotchets, minims, semibreves and quavers
- Use strong contrasts in dynamics to add light and shade
- Compare tempi
- Discuss differences in timbre between orchestral instruments
- Experiment with weaving melodic or rhythmic parts
- Use simple ostinato

Art – Drawing with Wool – Seascapes

- Experiment with ways in which surface detail can be added to drawings.
- Make marks and lines with a wide range of drawing implements e.g. charcoal, pencil, crayon, chalk pastels, pens etc.
- Experiment with different grades of pencil and other implements to draw different forms and shapes.
- Begin to show an awareness of objects having a third dimension.
- Use weaving to create textural effects

HUMANITIES

Climate Zones

- Various enquiries including;
- What is Britain's climate?
- What is the climate like in other countries?
- Does it effect how people live?

Using maps and sources.

FRENCH

My Town

Children will learn about what they can see in their town. It covers some common town building as well as directions and some handy shopping vocabulary. They will learn how to ask for items if French and how to ask how much something costs. The unit ends with a story about a shopping trip which ties together some vocabulary from throughout the unit.

By the end the children will be able to:

- Understand and be able to give simple directions to town buildings.
- Say and write from memory a few sentences about where they live.
- Be able to recognize some French prices with minimal aid.
- Read part of a story aloud to a class, with support
Play French word games with increasing levels of accuracy, including completing and reordering sentences correctly.

Phonics

Children will look into the key Phonics areas:

- Alphabet
- Simple Vowel sounds
- More Vowles
- Nasal Sounds
- Complicated Consonants
- Silent Letters
- Tricky Sounds and Similar Sounds

These will also be taught throughout different modules.

PHYSICAL EDUCATION

Using Ball Handling Skills

- To continue to apply and develop a broader range of skills
- Enjoy communicating, collaborating and competing with each other
- Develop an understanding of how to improve in different physical activities and sports
- Evaluate and recognise their own success.
- To learn to work co-operatively during skills..