

Science (Term 1)



States of Matter

National Curriculum Links

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

Learning Outcomes

Children will be able to:

- Explain that the three fundamental states of matter are solid, liquid and gas;
- Sort materials into solids, liquids or gases;
- List the properties of the three fundamental states of matter;
- Discuss how materials change state when they are heated or cooled;
- Read the scale on different thermometers;
- Explain that liquids have a freezing point (to become solid) and a boiling point (to change to a gas);
- Explain that salt water has different boiling and freezing points from fresh water;
- Explain condensation and evaporation, using everyday examples;
- Investigate the factors that speed up evaporation;
- Describe the water cycle using scientific terminology;
- Explain that water appears in many different forms in different weathers;
- Explain why water is so important to living organisms;
- Explain that air is a gas; and
- Explain that gases, including air, fill all the available space.

Topic-Based English

National Curriculum Links

Pupils should be taught to:

Reading

- Develop positive attitudes to reading and understanding of what they read by listening to and discussing a range of texts;
- Discuss the words that capture the reader's interest and imagination;
- Retrieve and record information from non-fiction texts;
- Use dictionaries to check the meaning of words;
- Identify a themes and conventions in a wide range of texts;
- Identify how language, structure and presentation contribute to meaning; and
- Read aloud their own writing, using appropriate intonation and controlling the tone and volume so that the meaning is clear.

SPaG

- **Recovery (Yr2) Use prefixes and suffixes and understand how to add them;**
- Organise paragraphs around a theme;
- Correct use of the apostrophe;
- Proof read for spelling and punctuation errors; and
- Propose changes to grammar and vocabulary to improve consistency.

Composition

- To compose and rehearse sentences orally, progressively building a varied and rich vocabulary and an increasing range of sentence structures;
- Use the first two or three letters of a word to check its spelling in a dictionary;
- Plan, draft, write, evaluate and edit their written work;
- Increase the legibility, consistency and quality of their handwriting;
- Use the diagonal and horizontal strokes that are needed to join letters; and
- Discuss writing similar to that of which they are planning to write in order to understand and learn from its structure, vocabulary and grammar.
- Discuss and record ideas for writing.
- Use a wide range of conjunctions to extend sentences.

Food Technology

Mini Quiches

National Curriculum Links

Pupils should be taught to:

- Understand the principles of a healthy and varied diet;
- Prepare and bake a savoury dish using a range of cooking techniques; and
- Begin to understand and talk about seasonality, such as how and where a variety of ingredients are grown and processed.

Learning Outcomes

Children will be able to:

- Know when different fruits and vegetables are in season in the United Kingdom;
- Taste a variety of foods and describe the flavours and smells they experience;
- Design their own mini quiche using preferred ingredients;
- Put hygiene and safe practice into place in relation to kitchen equipment and food handling;
- Carry out preparation and cooking techniques;
- Wash and dry equipment safely; and
- Taste and evaluate their product.



Coast to Coast

Topic-Based English (cont.)

Instruction Texts

Learning Outcomes

Children will be able to:

- Produce a set of instructions using the key features of instructional writing (present tense, imperative verbs, second person, bullet points, adverbials for time, subheadings);
- Retrieve and record information from an example set of instructions;
- **RECOVERY – SPaG (Yr2): use apostrophes for omission;**
- Follow and test their instructions by reading aloud their own writing, using appropriate intonation and controlling the tone and volume so that the meaning is clear; and
- Use their experience of following their instructions to edit and improve them for clarity, accuracy, detail and correct sequence.

Information and Persuasive Texts (A Guide to Northumberland)

Learning Outcomes

Children will be able to:

- Study information and persuasive texts to identify their key features, themes and conventions;
- Identify how the language, structure and presentation of these texts contribute to meaning;
- Retrieve and record information from an example non-fiction text;
- Use the features of persuasive writing to create an advert for a Northumberland tourist attraction or landmark;
- Organise paragraphs around a theme; and
- Use the features of information and persuasive texts to produce a guide to chosen areas of Northumberland.

Science (Term 2)

Rocks and Soils (Volcanoes and Fossils)



National Curriculum Links

Pupils should be taught to:

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties;
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock; and
- Recognise that soils are made from rocks and organic matter.

Learning Outcomes

Children will be able to:

- Find where rocks or materials made from rocks have been used in and around school;
 - Talk about and record why rocks are useful;
 - Recognise that there is rock under all surfaces;
 - Describe the internal structure of the Earth in simple terms;
 - Explain where in the world volcanoes occur and why they are found there;
 - Describe what happens when a volcano erupts;
 - Understand that particular types of rocks are formed by volcanoes;
 - Put rocks in order of hardness;
 - Understand how rocks are broken down;
 - Recognise differences between rocks;
 - Describe how sand particles and pebbles can be separated
 - Sort rocks and name some of them;
 - Describe how a fossil is formed;
 - Realise that not all animals and plants that die become fossils;
 - Talk about why soil is important to humans;
 - Explain what soil contains (including small pieces of rocks);
 - Plan a complete investigation;
 - Make and record measurements of time and volume of water; and
 - Use results to make comparisons and draw conclusions.
- Science Investigation Opportunity - how can we best protect a coastline from coastal erosion?**

Physical Education

Striking and Fielding, Athletics and Fitness, Football and Problem Solving (Chestnut and Willow), Ford Castle Residential (Year 4)

National Curriculum Links

Pupils should be taught to:

- Use running, jumping, throwing and catching in isolation and in combination;
- Play competitive games and apply basic principles suitable for attacking and defending;
- Develop flexibility, strength, technique, control and balance.
- Compare their performances with previous ones and demonstrate improvement to achieve their personal best; and
- Take part in outdoor and adventurous activity challenges both individually and within a team.

Mastering English

Design and make an information guide that explains what happens when a volcano erupts.

Maths (Year 3 - Willow)



National Curriculum Links

Fractions, Time, Properties of Shape and Mass and Capacity (White Rose)

Pupils should be taught to (fractions):

- Recognise and show, using diagrams, equivalent fractions with small denominators.
- Compare and order unit fractions, and fractions with the same denominators.
- Add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$]

- Solve problems that involve all of the above

Pupils should be taught to (time):

- Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks;
- Estimate and read time with increasing accuracy to the nearest minute;
- Record and compare time in terms of seconds, minutes and hours;
- Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight;
- Know the number of seconds in a minute and the number of days in each month, year and leap year; and
- Compare durations of events.

Pupils should be taught to (shape):

- Recognise angles as a property of shape or a description of a turn;
- Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn;
- Identify whether angles are greater than or less than a right angle;
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines;
- Draw 2-D shapes and make 3-D shapes using modelling materials; and
- Recognise 3-D shapes in different orientations and describe them.

Pupils should be taught to (measure):

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

Geography

Investigating Coasts

National Curriculum Links

Pupils should be taught to:

- Name and locate key topographical features (including coasts and rivers);
- Understand how some of these aspects have changed over time; and
- Describe and understand key aspects of physical geography (including rivers and the water cycle).

Learning Outcomes:

Children will be able to:

- Explain the water cycle processes;
- Research the main types of coast found in the UK;
- Explain how the sea shapes the coastline (coastal erosion);
- Create a glossary of key physical coastal features;
- Discuss the impact of the sea on people living on the coast;
- Identify human uses of the coast;
- Explain why lighthouses were built;
- Research local lighthouses; and
- Describe human and physical coastal features.

Maths (Year 4 – Chestnut and Maple)



National Curriculum Links

Fractions, Decimals, Money, Time, Statistics, Properties of shape, Position and Direction (White Rose)

Pupils should be taught to (fractions):

- Recognise and show, using diagrams, families of common equivalent fractions
- Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10
- Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- Add and subtract fractions with the same denominator

Pupils should be taught to (decimals):

- Compare numbers with the same number of decimal places up to two decimal places;
- Round decimals with one decimal place to the nearest whole number;
- Recognise and write decimal equivalents to 14, 12 and 34; and
- Find the effect of dividing a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths.

Pupils should be taught to (money):

- Estimate, compare and calculate different measures, including money in pounds and pence; and
- Solve simple measure and money problems involving fractions and decimals to two decimal places.

Pupils should be taught to (time):

- Read, write and convert time between analogue and digital 12- and 24-hour clocks; and
- Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Pupils should be taught to (statistics):

- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs; and
- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

Pupils should be taught to (properties of shape):

- Identify acute and obtuse angles and compare and order angles up to two right angles by size;
- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes;
- Identify lines of symmetry in 2-D shapes presented in different orientations; and
- Complete a simple symmetric figure with respect to a specific line of symmetry.

Mastering Maths

Create a timeline to represent the process of fossilisation over a period of time; and
Use Venn and Carroll diagrams to identify similarities and differences between rocks.

Maths

Write and following directional-based instructions to develop children's understanding of position, directions and movement.

Religious Education

(Discovery RE)



Year 3 (Willow) – Sikhism

Learning Outcomes

Children will be able to:

- Discuss why it is important to share even though it is not always easy.
 - Describe some of the ways Sikhs share and begin to explain why this is important to them because of their beliefs.
 - Begin to tell you if sharing is important or not to Sikhs.
- P4C: Do Sikhs think it is important to share?

Year 4 (Chestnut and Maple) – Buddhism and Christianity

Learning Outcomes

Children will be able to (Buddhism):

- Describe their good choices and the consequences of it.
- Explain the consequence of making a different choice.
- Describe how aspects of the 8-fold path help Buddhists to know how to live a good life.
- Start to tell why some aspects of the 8-fold path might be hard to stick to.

P4C: What is the best way for a Buddhist to lead a good life?

Children will be able to (Christianity):

- Explain some of the feelings my special place gives me and suggest why that is.
- Describe some of the ways that Christians use churches to worship / celebrate.
- Understand the impact a Christian's special place has on him / her.

P4C: Do people need to go to church to show that they are Christian?

Music



Charanga: Bringing Us Together (Year 3) Blackbird (Year 4)

National Curriculum Links

Pupils should be taught to:

- Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- Improvise and compose music for a range of purposes
- Listen with attention to detail and recall sounds
- Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians.
- Develop an understanding of the history of music.

PSHE

Relationships and Changing Me

(Year 3)

National Curriculum Links (Jigsaw)

Pupils should be taught:

- About stereotypical family roles and responsibilities;
- The skills of friendship and how to negotiate in conflict situations;
- How to keep themselves safe online and to know who to turn to if they are worried;
- How some of the actions and work of people around the world help and influence their lives in making choices;
- How their needs and rights are shared by children around the world and to identify how their lives may be different; and
- How they can express their appreciation to friends and family and identify the things they enjoy about being part of a family and group.

(Year 4)

National Curriculum Links (Jigsaw)

Pupils should be taught:

- To recognise situations which can cause jealousy in relationships, identify feelings associated with jealousy and problem-solve in situations of jealousy;
- To identify someone they love and can express why they are special to them;
- How friendships change, know how to make new friends and how to manage when they fall out with my friends;
- What having a boyfriend/ girlfriend might mean and that it is a special relationship for when they are older; and
- About showing love and appreciation to the people and animals they love.

Art and Design

Exploring Coastal Sculptures by British Artists, Designing and Creating Lighthouses & Alnwick in Bloom

National Curriculum Links:

Pupils should be taught to:

- Create sketchbooks to record their observations and use them to review and revisit ideas; and
- Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials.

Learning Outcomes

Children will learn about / will be able to:

- British artists/sculptors, including examples from the local area (coastal);
- Lighthouses from around the world;
- Practise and develop their drawing and painting skills
- Create drawings and paintings inspired by artists they have studied of a range of traditional and modern lighthouse designs from around the world;
- Design their own traditional or modern day lighthouse using the features they have explored;
- Create their own lighthouse using papier-mâché;
- Add features and detail to their lighthouses and any surrounding area such as rocks, sea, sand and grass using acrylic paint and applying their knowledge of colour mixing when needed;
- Gather natural and man-made materials to add texture and detail to their lighthouses such as sand, shells and netting; and
- Evaluate their lighthouses.

Modern Foreign Languages

French: Nursery Rhymes, Stories and Poems (Years 3 & 4)

Weather (Year 4)

National Curriculum Links

Pupils should be taught to:

- Listen attentively to spoken language and show understanding by joining in and responding.
- Explore the patterns and sounds of language through song and rhyme.
- Engage in conversations, ask and answer questions.
- Speak in sentences using familiar vocabulary and phrases.
- Appreciate stories, songs, poems and rhymes in the language.
- Read carefully and show understanding of words, phrases and simple writing.

Learning Outcomes:

Children will be able to:

- Listen and respond to a nursery rhyme and extended text;
- Join in reading a story;
- Match a sound to the written word;
- Listen for a key sound as it occurs in a rhyme;
- Appreciate similarities between English and French nursery rhymes;
- Recite a nursery rhyme;
- Follow a text as it is read aloud;
- Follow a story using visual clues; and
- Understand and use key vocabulary relating to weather.

Computing

Coding (linked to English: Instructional Writing)

National Curriculum Links:

Pupils should be taught to:

- 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; and
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Learning Outcomes:

- Children will be able to:
- Use Scratch to control virtual systems
- Use repetition to shorten sequences of instructions
- Use inputs to detect when a device should be activated
- Create a sequence of instructions that achieves a specific goal.

