

## 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,  $5/7 + 1/7 = 6/7$ ]

##### **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.

### Outdoor Learning Opportunities

## 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.

