# Science

## 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**
- **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 is matter
- explain that gases, including air, fill all the available space

# Topic-based English

## Information and Persuasive Texts (A Guide to Northumberland)

## Humorous Poems

## Stories with humour (Mr Stink / Billionaire Boy)

**National Curriculum Links:**

**Pupils should be taught to:**

- **Develop positive attitudes to reading and an 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.**
- **Ask questions to improve their understanding of a text.**
- **Identify main ideas drawn from more than one paragraph and summarise them.**
- **Plan, draft, write, evaluate and edit their written work.**
- **Proof read for spelling and punctuation errors.**
- **Use a wide range of conjunctions to extend sentences.**
- **Choose nouns / pronouns appropriately for clarity and cohesion, avoiding repetition.**
- **Read aloud their own writing, using appropriate intonation and controlling the tone and volume so that the meaning is clear.**
- **Increase the legibility, consistency and quality of their handwriting.**
- **Use the diagonal and horizontal strokes that are needed to join letters.**

# Design Technology

## Lighthouses

**National Curriculum Links**

**Pupils should be taught to:**

- **Design, make and evaluate**
- **Apply their understanding of how to strengthen stiffen and reinforce structures**

**Learning Outcomes**

Children will be able to:

- Design and make their own lighthouse
- Evaluate their lighthouse against the design criteria

# Coast to Coast

# Art and Design

## Coastal Scenes by British Artists

**National Curriculum Links**

**Pupils should be taught to:**

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

**Learning Outcomes**

Children will learn about:

- British artists, including examples from the local area (coastal)

Children will be able to:

- Practise and develop their drawing and painting skills
- Create drawings and paintings inspired by artists they have studied

# Science

## 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**
- **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

## Home Learning

**Due to the unprecedented circumstances we currently find ourselves, we will endeavour to cover as much of this medium-term plan through home learning as is practicable. Where National Curriculum coverage is not met through home learning we will endeavour to ensure that curriculum areas are covered when schools are reopened, where this is possible.**

# Maths (Year 3)

**National Curriculum Links**
**Fractions, Time, Properties of Shape and Measure (*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.
- 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.
- 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).

# Maths (Year 4)

**National Curriculum Links**
**Decimals, Money, Time, Statistics, Properties of shape, Position and Direction (*White Rose*)**

**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
- Find the effect of dividing a 1 or 2-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.
- 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.
- 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.
- 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.
- Complete a simple symmetric figure with respect to a specific line of symmetry.

**Pupils should be taught to (position and direction):**
- Describe positions on a 2-D grid as coordinates in the first quadrant.
- Plot specified points and draw sides to complete a given polygon.
- Describe movements between positions as translations of a given unit to the left/ right and up/ down.

# Religious Education

## Sikhism (Year 3)

Children will be able to:
- discuss why it is important to share
- describe some of the ways Sikhs share and explain why this is important to them and their beliefs.
- describe if sharing is important to Sikhs.

## Buddhism & Christianity (Chestnut & Maple)

Children will be able to:
- describe their good choices and the consequences
- describe how aspects of the 8 -fold path help Buddhists to know how to live a good life
- explain why some aspects of the 8-fold path might be hard to stick to
- explain the feelings that their 'special place' gives them
- describe some of the ways that Christians use churches to worship and celebrate
- understand the impact a Christian's special place has on him / her.

# Physical Education

## Tennis Coaching, Swimming, Athletics & Cricket

**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.
- Swim competently, confidently and proficiently over a distance of at least 25 metres.
- Use a range of strokes effectively.
- Perform safe self-rescue in different water-based situations.

# PSHE

## Living in the Wider World: *Rights and Responsibilities, Taking Care of the Environment and Money Matters*

**National Curriculum Links *(PSHE Association)***
**Pupils should be taught**
- About respect for self and others
- The importance of responsible behaviours and actions
- About rights and responsibilities as members of families, other groups and ultimately as citizens
- About different groups and communities
- To respect equality and to be a productive member of a diverse community
- About the importance of respecting and protecting the environment
- About where money comes from, keeping it safe, and the importance of managing it effectively
- How money plays an important part in people's lives
- A basic understanding of enterprise

# 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.
- 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
- describe human and physical coastal features

# 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.

## Modern Foreign Languages

**French: Keeping Fit: Fruit & Food / Leisure & Hobbies**

**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:

- name several fruit and food items
- hold a conversation about which foods are good / bad for your health
- name some well-known sports
- discuss likes / dislikes of different sports

## Computing

**The Water Cycle**

**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**
- **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 create an animation to demonstrate the Water Cycle
- use repetition to shorten sequences of instructions
- use timing to ensure that the different stages of the cycle are clear and distinct
- create algorithms to direct Scratch to change scenes or move objects
- debug algorithms to find and correct errors in programming

## Outdoor Learning Opportunities

**Science**

- Finding and investigating the different rocks and soils found within the school grounds.

**Maths**

- Measure the lengths and mass of rocks found within the school grounds prior to sorting them using Venn / Carroll diagrams.
- Writing and following oral, directional-based instructions to develop children's understanding of position, directions and movement

## Mastering Maths

- Create a timeline to represent the process of fossilisation over a period of time.
- Use Venn and Carroll diagrams to identify similarities and differences between rocks
- Use a range of graphs to show how permeable different soils from within the school arounds are

## Mastering English

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