### **Science**

### Earth and Space

**National Curriculum Links** 

Pupils should be taught to:

Describe the movement of the Earth, and other planets, relative to the Sun in the solar system

Describe the movement of the Moon relative to Earth

Describe the Sun, Earth and Moon as approximately spherical

Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

#### **Learning Outcomes**

Children will be able to:

- Describe the Sun. Earth and Moon as approximately spherical bodies.
- Name and describe features of the planets in our Solar System.
- Order the planets in the Solar System.
- Explain how planets move in our Solar System.
- Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.
- Investigate night and day in different parts of the Earth, reporting and presenting their findings.
- Describe the movement of the Earth, and other planets, relative to the Sun in the Solar System.
- Describe the movement of the Moon relative to the Earth.

### Isaac Newton and Galileo Study

### **Learning Outcomes**

Children will be able to:

- Explain who Isaac Newton and Galileo Galilei are
- Explain the work of Newton and Galileo in developing the theory of gravitation

P4C "Are discoveries from 400 years ago still relevant today?"

Scientific Enquiry: Does night and day occur at the same time everywhere on Earth?

# Geography (CC) (CC - Investigating Coasts, Yr4 2019-2020)

### Investigating Coasts

#### **National Curriculum Links**

Pupils should be taught to:

Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time

#### **Learning Outcomes**

Children will be able to:

- Name some features of a coastline
- Explain how some coastal features are formed
- Explain how erosion and deposition form coastal features
- Identify the location of some famous coastal features in the UK

### **Design Technology**

### Sundials

#### **National Curriculum Links**

Pupils should be taught to:

Use simple equipment and materials appropriately and take action to

Evaluate their ideas and products against design criteria Consider the view of others on how to improve their work

#### **Learning Outcomes**

Children will be able to:

- Explain what a sundial is and how it works
- Talk about the different types of sundials and how effective each are
- Design, make and evaluate their own sundials

## To Infinity and Beyond

### **Topic-based English**

Recounts, narrative and Poetry (Cosmic It's one giant leap for boy-kind)) Information and persuasive (Thing explainer and Curiosity: The story of a

#### **National Curriculum Links**

Pupils should be taught to:

Continuing to read and discuss an increasingly wide range of genres Develop positive attitudes to reading and understanding of what they read by increasing their familiarity with a range of books and text types Discuss the words that capture the readers interest Explain and discuss their understanding of what they have read Retrieve and record information from fiction and non-fiction books Identify the audience for and purpose of a piece of writing Plan, draft, write, evaluate and edit their written work 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 Proof read for spelling and punctuation errors

#### Learning Outcomes

Children will be able to:

- Participate in discussion about a text that is read to them evaluating how authors use language, including figurative language, considering impact on the reader.
- Draw inferences, justifying these with evidence.
- Select appropriate vocabulary for a specific text type.
- Portray the perspective of a character in writing.
- Summarise ideas from a piece of text; identifying key details that support their main ideas.
- Recognise how an author has carefully chosen vocabulary that effectively describes a setting in order to persuade visitors.
- Understand how authors have developed characters in a text.
- Understand the purpose of different text types and explore the different language features.
- Learn and apply proofreading and editing skills. write an informative text, using appropriate text structure, language and features.

### **Foreign Languages**

### French: ...

**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 songs. Develop accurate pronunciation and intonation.

Appreciate stories, songs, poems and rhymes in the language.

#### **Learning Outcomes**

Children will be able to:

- Understand and use negatives
- Recite a short text with accurate pronunciation.
- Follow a transcript in French.
- Recite a French Carol.

## **Computing (incl. CC)**

## Interactive Solar System Model (Scratch)

#### **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:

- Create a simulation of the Earth orbiting the Sun, designing, writing and debugging a simulation program
- Think what the purpose of the simulation is and who the audience is, and then decide what the most important aspect of the simulation will be

### **Mastering Maths**

Earth and space: Make comparative measurements for the size of different planets, their distance from the Sun and other facts

Sundials: Directional-based challenges focusing upon the eight compass points

Sundials: Reading Roman Numerals displayed on sundials

### **Mastering English**

Science - Create an explanation text about Newton or Galileo and their discoveries



### Maths (Year 5)

### Statistics, Multiplication & Division and Area & Perimeter (White Rose)

#### **National Curriculum Links**

Pupils should be taught to:

Read and interpret line graphs

Solve comparison, sum and difference problems using information presented in a line graph.

Draw line graphs

Complete, read and interpret information in tables including two-way tables and timetables.

Multiply and divide numbers mentally drawing upon known facts.

Multiply and divide whole numbers by 10, 100 and 1000.

Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.

Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3) Solve problems involving multiplication and division including using their knowledge of factors and multiples. squares and cubes.

Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.

Establish whether a number up to 100 is prime and recall prime numbers up to 19

Measure and calculate the perimeter of composite rectilinear shapes in cm and m.

Calculate and compare the area of rectangles (including squares), and including using standard units, cm<sup>2</sup>. m<sup>2</sup> estimate the area of irregular shapes.

#### CC - Year 4 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

### Maths (Year 6)

### Fractions and Geometry (White Rose)

#### National Curriculum Links

Pupils should be taught to:

Use common factors to simplify fractions

Use common multiples to express fractions in the same denomination.

Compare and order fractions, including fractions > 1

Generate and describe linear number sequences (with fractions)

Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions.

Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example 14 x 12 =

Divide proper fractions by whole numbers [for example  $13 \div 2 = 16$ ]

Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example 38]

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Describe positions on the full coordinate grid (all four quadrants).

Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

#### CC - Year 5 Statistics

Read and interpret line graphs

Solve comparison, sum and difference problems using information presented in a line graph.

Draw line graphs

Complete, read and interpret information in tables including two-way tables and timetables.

### **PSHE**

### Jigsaw - Celebrating Differences

#### **Learning Outcomes**

Children will:

Develop an awareness of their own culture.

Understand that cultural differences sometimes cause conflict.

Understand what racism is.

Explain the difference between direct and indirect types of bullying. Make comparisons between their life and people in the developing

Understand the importance of respecting their own and other people's cultures.

Discuss the value of happiness regardless of material wealth.

## **Religious Education**

### **Christianity - The Significance of Christmas**

### **Learning Outcomes**

Children will:

- Understand the different qualities needed because of important jobs they are
- Understand the links between the Virgin Birth and Christian Beliefs about
- Start to consider their personal response to the Christian belief in the Virgin birth, showing respect to Christian views.
- Describe some of the ways that Christians would celebrate Christmas
- Understand which of these would help them understand who Jesus was and why he was born.
- explain that people may celebrate Christmas in different ways and say whether or not I feel this relates to Jesus

## **Physical Education**

### Multi-Skills and Daily Mile

**National Curriculum Links** 

Pupils should be taught to:

Play competitive games, modified where appropriate Develop flexibility, strength, technique, control and balance Take part in outdoor challenges both individually and within a team

## Music

### Classroom Jazz (Charanga)

**National Curriculum Links** 

Pupils should be taught to:

Play and perform in solo and ensemble contexts, playing musical instruments with increasing accuracy, fluency and

Improvise and compose music for a range of purposes Use and understand staff and other musical notations 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

### **Outdoor Learning Opportunities:**

#### Map what matters

The children will:

- Understand what democracy is.
- Recognise that the UK Parliament and Government have an influence on the everyday issues you care about.

Parliament Week (incl. CC)

- An MPs role is to represent their constituent's concerns in the UK Parliament.
- Identify issues that important to know.
- Understand that they can have their voices heard by writing to their MP to share these.

### Science - Earth and Space

- Estimate the distance between the Earth and the Sun using a ratio of 1million km to 1m
- Create a model of the solar system using natural material

#### DT - Sundials

- Using our sundials to investigate the Earth's rotation
- Evaluating the effectiveness of sundials