



Bevendean Primary School Curriculum

Year 5 Summer Framework

Topic focus: Where we Live

English

National Curriculum Aims for Year 5

The overarching aim for English in the national curriculum is to promote high standards of language and literacy by equipping pupils with a strong command of the spoken and written word, and to develop their love of literature through widespread reading for enjoyment. The national curriculum for English aims to ensure that all pupils:

- read easily, fluently and with good understanding
- develop the habit of reading widely and often, for both pleasure and information
- acquire a wide vocabulary, an understanding of grammar and knowledge of linguistic conventions for reading, writing and spoken language
- appreciate our rich and varied literary heritage
- write clearly, accurately and coherently, adapting their language and style in and for a range of contexts, purposes and audiences
- use discussion in order to learn; they should be able to elaborate and explain clearly their understanding and ideas
- are competent in the arts of speaking and listening, making formal presentations, demonstrating to others and participating in debate.

Learning this term

The children begin by looking at non-sense poems such as *On the Ning Nang Nong* by Spike Milligan and *Jabberwocky* by Lewis Carroll. The learning is focused on the language features of rhyme, onomatopoeia and syllable patterns. The children use the poems as a model on which to base their own poem.

The topic for the summer term is *Where we Live*, which is linked to a trip to the Brighton Pavilion, the sea front and Brighton city centre. After the trip the children are introduced to the unit by reading a diary entry of an engineer working on the building of Brighton Railway station. This, together with other historical diary entries, provides them with the inspiration to create their own diary entry in role as an engineer for Volks Electric Railway. To bring this alive the children participate in hot seating, role play and art.

The fiction unit for the first half term is Myths and Legends. Teaching and learning is based upon *The Legend of Devils Dyke*. Through the 'Talk for Writing' process, the children learn this story and write one of their own. Shortly after completing their stories, they walk to Devils Dyke, as part of the Parkwood trip, to see the landscape on which this myth is based.

During the trip to Brighton in the first half term, the children encounter a variety of graffiti. On returning to school, they debate the positive and negative effects this art has on the local community. The children learn to write a balanced discussion text, which includes both sides of an argument and which includes personal opinion.

The final writing focus for the term is portal stories. The children explore both classic and contemporary stories including *The Lion the Witch and The Wardrobe* to lay the foundations for their stories.

Mathematics

National Curriculum Aims for Year 5

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Learning this term

The children begin the term with a prime number investigation which develops their knowledge of multiples, factors, pattern spotting, composite numbers and problem solving strategies.

Using data gathered from their trip to Brighton city centre, the children read and interpret information in tables and line graphs. They also build on their existing knowledge of fractions, decimals, percentages and negative numbers.

Addition, subtraction, multiplication and division strategies are revised through a variety of exciting games (some of which are invented by the children) and word problems linked to the Georgian period.

The children use the victory of Stuart Bingham at the World Snooker Championship to further develop their knowledge of angles and measurement. By looking at television clips and studying real life game situations, the children estimate and explore different trajectories to remove a ball from a snookered position.

Parkwood is used as a context for learning about area and perimeter. Before going on the trip, the children redesign the living quarters as they are due to be demolished and rebuilt. This enables them to consolidate their understanding of area, perimeter and shape. Role play is used to solve capacity and weight problems linked to the trip.

The year concludes with a cross curricular maths unit linked to Sports Day. The children time themselves completing various circuit training exercises from which data is drawn. The children then use this data to convert between percentages, decimals and fractions. This work is linked to their work in science.

Science

National Curriculum Aims for Year 5

The national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

Living things and their habitats

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals.

Animals including humans

- describe the changes as humans develop to old age.

Properties and changes of materials

- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- demonstrate that dissolving, mixing and changes of state are reversible changes
- explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Earth and space

- 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
- describe the Sun, Earth and Moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Forces

- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- identify the effects of air resistance, water resistance and friction, that act between moving surfaces
- recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

Learning this term

Science skills and knowledge relating to forces are taught, which links to the DT Kite topic for this term. The children consider what they already know about forces. They pose questions that they would like answered throughout the topic and create concept maps. The children take part in a range of hands on activities that introduce them to the concept of forces and the necessary vocabulary. Fair tests are undertaken including designing, making and testing parachutes to investigate air resistance. The children then use this information to make a 3D scatter gram. To further develop their understanding, the children play parachute games to experience the effect of air resistance first hand. During one lesson, children time themselves running 100 meters and then repeat this whilst wearing a parachute pack to prove the effects of air resistance. Water resistance is investigated through a challenge to produce two missiles that have maximum and minimum water resistance.

In the final half term the children learn about properties and changes of material.

History

National Curriculum Aims for Year 5

The national curriculum for history aims to ensure that all pupils:

- know and understand the history of these islands as a coherent, chronological narrative, from the earliest times to the present day: how people's lives have shaped this nation and how Britain has influenced and been influenced by the wider world
- know and understand significant aspects of the history of the wider world: the nature of ancient civilisations; the expansion and dissolution of empires; characteristic features of past non-European societies; achievements and follies of mankind
- gain and deploy a historically grounded understanding of abstract terms such as 'empire', 'civilisation', 'parliament' and 'peasantry'
- understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance, and use them to make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses
- understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed
- gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between local, regional, national and international

history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales.

Key stage 2

- changes in Britain from the Stone Age to the Iron Age
- the Roman Empire and its impact on Britain
- Britain's settlement by Anglo-Saxons and Scots
- the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor
- a local history study
- a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066
- the achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China
- Ancient Greece – a study of Greek life and achievements and their influence on the western world
- a non-European society that provides contrasts with British history – one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.

The children learn about the history of Brighton and develop historical enquiry skills during a guided walk along the seafront and a visit to the Royal Pavilion. A variety of Primary and secondary resources (such as newspapers, books, postcards and cobbles) are analysed to gain understanding of how these can be used to provide evidence. They analyse a variety of resources, such as diary entries and information texts, and use these to construct their own diary entries in English lessons.

Design and Technology

National Curriculum Aims for Year 5

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

Key stage 2

Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

Learning this term

The unit starts with a live demonstration of extreme kite flying which inspires the children to design and make their own kite. This links with, and allows the children opportunities to apply their knowledge of air resistance. They look at a brief history of kites and have the opportunity to try different kites made from a variety of materials. This project culminates in a kite flying expedition to Devils Dyke as part of their Parkwood trip.

Modern Foreign Language

National Curriculum Aims for Year 5

The national curriculum for languages aims to ensure that all pupils:

- understand and respond to spoken and written language from a variety of authentic sources
- speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation
- can write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt
- discover and develop an appreciation of a range of writing in the language studied.

Learning this term

The children learn to understand short passages of familiar language, ask and answer questions, sing songs and play games related to the weather and school. They learn to express likes and dislikes and they take part in role play situations in which they hold short conversations using the vocabulary they have learnt. When speaking French, the children learn to improve the accuracy of their pronunciation.

Computing

National Curriculum Aims for Year 5

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Key stage 2

- 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
- 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Learning this term

Computing teachers from a local secondary school continue to visit and teach the children coding alongside the class teachers, using Scratch and Kodu. The children also learn to use coding apps on tablets.

The children continue to develop their skills when using the internet to find and retrieve information by refining, searching, validating and comparing information. They also continue to learn how to communicate online safely and respectfully.

PSHE

National Curriculum Aims for Year 5

The national curriculum for personal, social, health, economic and citizenship education aims to ensure that all pupils:

- accurate and relevant knowledge
- opportunities to turn that knowledge into personal understanding
- opportunities to explore clarify and if necessary challenge their own and others values, attitudes, beliefs, rights and responsibilities
- opportunities to learn and practice the skills and strategies they need in order to live healthy, safe, fulfilling, responsible and balanced lives.

Learning this term

This term, the children take part in age appropriate sex education lessons that are in line with the National Curriculum and that link with their previous learning about the life cycles of animals and humans. The children learn about physical and emotional changes in the human body when they reach puberty. The unit of work aims to equip the children with an understanding of different types of change, positive and negative, and common human responses to it.

The children also learn about relationships and this unit seeks to develop children's ability to understand and manage the feelings associated with change. It aims to develop knowledge, skills and understanding in three key social and emotional aspects of learning: motivation, social skills and managing feelings. Feelings are also explored in the context of important relationships including family and friends. The theme aims to develop knowledge, understanding and skills in three key aspects of learning: self-awareness, managing feelings and empathy.

Physical Education

National Curriculum Aims for Year 5

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Key stage 2

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
- perform dances using a range of movement patterns
- take part in outdoor and adventurous activity challenges both individually and within a team
- compare their performances with previous ones and demonstrate improvement to achieve their personal best.

Learning this term

During the first half term, the children continue to develop skills to apply to invasion games by playing tag rugby. This includes team building, understanding the rules of the game and thinking about appropriate tactics in attacking and defending, practising a range of passing techniques and evading opponents.

During the second half term, linked with science, the children investigate the effects of exercise on their circulatory system. This leads into a series of circuit training games and exercises as well as track and field events in preparation for sports day.

Religious Education

National Curriculum Aims for Year 5

The local authority curriculum for religious education aims to ensure that all pupils:

- develop their knowledge and understanding of the nature of religious beliefs and practices and the importance of these in the lives of believers
- explore those aspects of human experiences which give rise to spiritual awareness and fundamental issues about beliefs and values.

Learning this term

The children study religions practised locally. They discuss what they know about religion in Bevendean, thinking about buildings and people they know. They then look in more detail at the building of a church in Bevendean. They learn when the estate was first built and about the larger church which was built soon after.

The next step is then to look at religion across Brighton and Hove and to think about buildings that they see, but may not realise are religious buildings. This then leads onto discussions about other religions which have not been discussed so far this year (Judaism and Islam) as well as those already discussed (Catholicism, Church of England and Hinduism).

Music

National Curriculum Aims for Year 5

The national curriculum for music aims to ensure that all pupils:

- perform, listen to, review and evaluate music across a range of historical periods, genres, styles and traditions, including the works of the great composers and musicians
- learn to sing and to use their voices, to create and compose music on their own and with others, have the opportunity to learn a musical instrument, use technology appropriately and have the opportunity to progress to the next level of musical excellence
- understand and explore how music is created, produced and communicated, including through the inter-related dimensions: pitch, duration, dynamics, tempo, timbre, texture, structure and appropriate musical notations.

Key stage 2

- 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 using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations
- 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.

Learning this term

Soundmakers is a programme of whole-class instrumental learning for children at Key Stage 2, delivered by music leaders from the Brighton and Hove Music and Arts Service, working in partnership with the music co-ordinator and/or class teacher. Soundmakers offers an engaging and enjoyable musical experience, which enables the children to learn together as a band, developing musical concepts through the practical application of instrumental and vocal skills while working together towards a celebratory performance. At the end of the project, parents, pupils and teachers are invited to watch the performance.

Specialist music teaching is provided each term by external teachers. They work closely with the class teachers to link music to the topic being studied.