

Year 5 Curriculum Overview

English

Reading

- Apply knowledge of morphology and etymology when reading new words
- Read and discuss a broad range of genres and texts
- Identifying and discussing themes
- Make recommendations to others
- Make comparisons within and across books
- Learn poetry by heart
- Draw inference and justify them with evidence
- Make predictions from what is stated and implied
- Discuss authors' use of language, structure and presentation
- Retrieve and present information from non-fiction texts
- Formal presentation and debates
- Distinguish between statements of fact and opinion

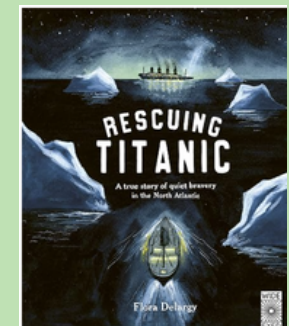
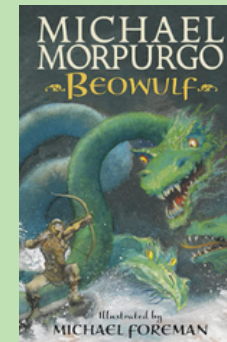
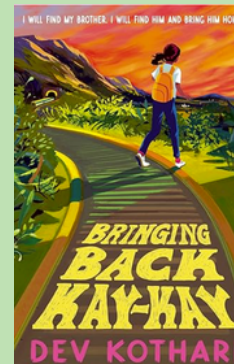
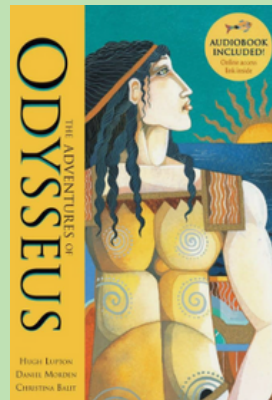
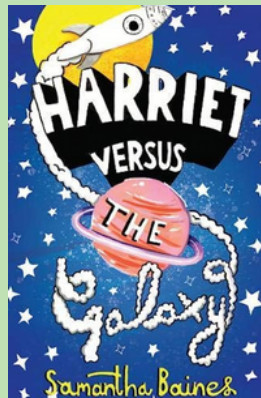
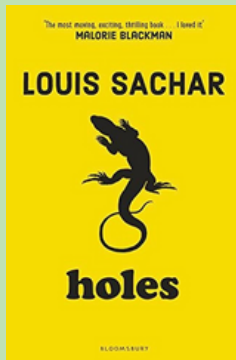
Writing

- Secure spelling, including homophones, prefixes, silent letters, etc.
- Use dictionaries to check the spelling and meaning of words
- Use a thesaurus
- Legible, fluent handwriting
- Plan writing to suit audience and purpose
- Select appropriate grammar and vocabulary
- Develop character, setting and atmosphere in narrative
- Integrate dialogue to convey character and advance the action
- Use organisational and presentational features
- Proof-read
- Propose changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
- Use consistent appropriate tense
- Perform own compositions
- Use expanded noun phrases
- Use modal and passive verbs
- Use relative clauses
- Use brackets, dashes and commas for parenthesis
- Commas to clarify meaning or avoid ambiguity

Speaking and Listening

- Listen and respond appropriately to adults and their peers
- Ask relevant questions to extend their understanding and knowledge
- Use relevant strategies to build their vocabulary
- Articulate and justify answers, arguments and opinions
- Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
- Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
- Speak audibly and fluently with an increasing command of Standard English
- Participate in discussions, presentations, performances, role play/improvisations and debates
- Gain, maintain and monitor the interest of the listener(s)
- Consider and evaluate different viewpoints, attending to and building on the contributions of others
- Select and use appropriate registers for effective communication

Core Texts



Maths

Number and Place Value

- read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
- count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000
- interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0
- round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000
- solve number problems and practical problems that involve all of the above
- read Roman numerals to 1,000 (M) and recognise years written in Roman numerals

Addition and Subtraction

- add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- add and subtract numbers mentally with increasingly large numbers
- use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

Statistics

- solve comparison, sum and difference problems using information presented in a line graph
- complete, read and interpret information in tables, including timetables

Multiplication and Division

- identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers
- 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
- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- multiply and divide numbers mentally, drawing upon known facts
- divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000
- 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
- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

Maths

Fractions

(including decimals and Percentages)

- compare and order fractions whose denominators are all multiples of the same number
- identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 11/5$]
- add and subtract fractions with the same denominator, and denominators that are multiples of the same number
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- read and write decimal numbers as fractions [for example, $0.71 = 71/100$]
- recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- round decimals with 2 decimal places to the nearest whole number and to 1 decimal place
- read, write, order and compare numbers with up to 3 decimal places
- solve problems involving number up to 3 decimal places
- recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction
- solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of a multiple of 10 or 25

Measurement

- convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]
- understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm^2) and square metres (m^2), and estimate the area of irregular shapes
- estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
- solve problems involving converting between units of time
- use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling

Geometry

- identify 3-D shapes, including cubes and other cuboids, from 2-D representations
- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- draw given angles, and measure them in degrees ($^\circ$)
- identify: angles at a point and 1 whole turn (total 360°), angles at a point on a straight line and half a turn (total 180°), other multiples of 90°
- use the properties of rectangles to deduce related facts and find missing lengths and angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed

Science

Working Scientifically

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments

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

Animals and Humans

- describe the changes as humans develop to old age

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

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

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
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History

- Who was most successful at invading Britain, Anglo Saxons or Vikings?
- How have the Ancient Greek achievements influenced the Western World?
- How has the industry in Southall changed over the last 100 years?

Geography

- What is the physical geography of the Western Region of Iceland?
- What is the human geography of the Western Region of Iceland?
- Do the types of land use in Southall meet the needs of our community?

Art and Design

- Drawing and Sketchbooks - Typography and Maps
- Surface and Colour - Inspired by Land & City Scapes
- Working in Three Dimensions - Set Design

Design Technology

- Mechanisms - Automaton Toy
- Electrical Systems - Night Lights
- Cooking and Nutrition - Eatwell Pizza

Physical Education

- Coordination - Footwork, Ball Skills, Sending and Receiving
 - Static Balance - One Leg, Seated, Stance, Floor Work
 - Dynamic Balance - On a Line
 - Dynamic Balance to Agility - Jumping and Landing
 - Agility - Reaction and Response, Ball Chasing
- Sports:
- Football
 - Handball
 - Hockey
 - Netball

Computing

- Computing Systems and Networks: Search Engines
- Programming: Programming Music, Micro:Bit and Selection in Quizzes
- Creating Media: Stop Motion Animation
- Data Handling: Mars Rover 1

Online Safety

- Self-image and Identity
- Online Relationships
- Online Reputation
- Online Bullying
- Managing Online Information
- Health, Wellbeing and Lifestyle
- Privacy and Security
- Copyright and Ownership

PSHE (Personal, Social and Health Education)

- What are the consequences of unhealthy and unfair relationships?
- How do different parts of our bodies impact our health?
- What is global citizenship?
- What do I want to do when I grow up? What is the media?
- What can I expect during puberty?
- How do we respond to change, risk and harm?

RHE (Relationships and Health Education)

- To explore the emotional and physical changes that occur during puberty
- To understand male and female puberty changes
- To explore the impact of puberty on the body and the importance of physical hygiene
- To explore ways to get support during puberty
- To understand what makes a family and who to turn to for help and support

Music

- Reading Notation 3: Time Signatures
- Developing Sight Reading Skills 1: Melodies (Glockenspiel)
- Pop Music 1: Arrangements and Improvisation
- Creating Music for Film and TV: Character, Atmosphere and Environment
- Exploring Classical Music 2: Ensemble Performance
- Becoming Musicians 3: Chords and Triads

Spanish

- Phonetics
- Revision of Presenting Myself including discussing family
- Do you have a pet?
- The Date
- My Home
- Clothes
- All about me

Curriculum Experiences

- History - Prime VR Vikings
- Geography - Prime VR Volcanoes and Local Fieldwork
- English - Southall Library
- RE - King Street Mandir
- Art and Design -- National Portrait Gallery: Drawing Portraits
- Music - Young Voices
- PSHE - My Bnk Workshops, Police Talk: Gangs, Grooming, Drugs and Violence
- PE - Sports Day and Dance Show
- Museum Learning - British Museum