



# The Robert Drake Primary School

## Curriculum—Year 6



### English

#### Reading

- Apply knowledge of morphology and etymology more effectively when reading new words
- Read and discuss a broad range of texts
- Read books structured in different ways; read for a wide range of purposes
- Recommend a wider variety of books to others
- Identify and discuss themes and conventions and make more in-depth comparisons between texts
- Learn a wider range of poetry by heart
- Prepare a variety of poems/plays to read aloud and perform confidently
- Check for sense and ask in-depth questions to improve understanding and empathy
- Draw inference and make more logical predictions
- Summarise main ideas
- Identify how structure and presentation contribute to meaning
- Discuss authors' use of language and its effect on the reader
- Distinguish between fact and opinion
- Retrieve, record and present information from more complex non-fiction texts
- Discuss books they read and hear
- Explain and clearly discuss their understanding, including through formal presentations and debates
- Justify their views using evidence

#### Writing

- Spell: words with prefixes, suffixes and silent letters; homophones and other confusing words; use knowledge of morphology and etymology more accurately
- Use a thesaurus/dictionary to check meanings/spellings
- Write legibly, fluently and with increasing speed, and be able to adapt handwriting for different purposes
- Plan writing: to suit audience and purpose; noting and developing initial ideas; considering how authors develop characters and settings, and the effect on the reader
- When writing: select appropriate grammar and vocabulary; use linking, organisational and presentational devices effectively; in narratives use dialogue and develop character, setting and atmosphere to engage the reader
- Précis longer passages
- Assess objectively the effectiveness of own and others' writing and propose changes to enhance effect and clarify meaning
- Check writing for: accuracy correct and consistent tenses; subject/verb agreement; distinction between spoken/written language; appropriate register; correct spelling and punctuation
- Perform own compositions
- Understand formal language structures, including subjunctive
- Confidently use: expanded noun phrases; modal and passive verbs; relative clauses
- Use with greater accuracy: commas and hyphens to avoid ambiguity; brackets, dashes and commas for parenthesis; semi colons, colons or dashes between independent clauses; colons in lists; punctuation of bullet points
- Learn and use grammar and terminology in Appendix 2 of the National Curriculum for English

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### Spoken Language

- Listen and respond appropriately showing consideration to the speaker
- Ask a wider range of relevant questions
- Build and use more challenging vocabulary
- Articulate accurately and justify their own ideas
- Describe, explain and narrate for different purposes; express feelings
- Participate and engage actively in conversations
- Speculate, hypothesise and explore more complex ideas
- Speak clearly, fluently and more confidently in Standard English
- Take part in discussions, presentations, performances, role-play, improvisations and debates
- Keep listeners interested
- Explore a wider range of different viewpoints
- Communicate more effectively using appropriate register

### Science

- Explore biological classification in more detail
- Identify main parts of the human circulatory system
- Explore the impact of diet, exercise, drugs and lifestyle on health
- Describe how nutrients are transported in humans and other animals
- Know living things have evolved over time
- Know offspring are similar but not identical to parents
- Identify how living things adapt and how this may lead to evolution
- Explore how light behaves (travelling in straight lines, reflection, refraction, shadow formation)

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- Associate brightness of lamp or volume of buzzer with number and voltage of cells
  - Compare and give reasons for variations in how circuit components function
  - Draw circuit diagrams using recognised symbols

### Working scientifically

- Plan different types of enquiry to answer questions
- Take accurate measurements and repeat them if needed
- Record increasingly complex data in various ways
- Use results to make predictions and suggest further experiments
- Present findings orally and in writing
- Identify scientific evidence for or against an idea

### Design and Technology

- Develop products fit for purpose based on market research carried out
- Communicate design ideas in various ways showing knowledge of materials
- Choose appropriate range of tools and materials to complete tasks
- Evaluate their product against their own design criteria and consider the views of others to improve their work
- Build and strengthen more complex structures using a range of materials and fixing techniques
- Use mechanical, electrical and computing systems in own products
- Understand and apply principles of a healthy diet and active lifestyle
- Prepare and cook mainly savoury dishes using different heat sources
- Understand seasonality and choose appropriate seasonal ingredients



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### Languages

- Listen and respond confidently using fully structured sentences
- Explore a complex range of language through stories, songs, poems and rhymes
- Converse fluently; ask and answer questions; express opinions; seek help with a wide range of complex phrases
- Speak in extended sentences independently
- Independently develop accurate pronunciation
- Express more complex ideas and describe things orally and in writing
- Understand a range of written phrases and sentences
- Broaden vocabulary
- Understand and correctly use a range of grammatical rules

### Music

- Use voice and instruments with increasing accuracy, control and expression - recognising which style to use based on interpretation
- Improvise and compose music using notation
- Listen with attention to detail and communicate own views and understanding
- Use and understand musical notation with greater confidence and complexity
- Appreciate a wide range of live and recorded music and share opinions and understanding
- Develop an understanding of musical history and its influences on modern day music

### Mathematics

#### Number – Number and Place Value

- Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit
- Round any whole number to a required degree of accuracy
- Use negative numbers in context, and calculate intervals across 0
- Solve number and practical problems that involve all of the above

#### Number - Addition, Subtraction, Multiplication and Division

- Multiply multi-digit numbers up to 4 digits by a two-digit whole numbers using the formal written method of long multiplication
- Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- Perform mental calculations, including those with mixed operations and larger numbers
- Use their knowledge of the order of operations to carry out calculations involving the 4 operations
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- Solve problems involving addition, subtraction, multiplication and division
- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy



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### Number – Fractions (Including Decimals and Percentages)

- Use common factors to simplify fractions; - use common multiples to express fractions in the same denomination
- Compare and order fractions, including fractions  $>1$
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,  $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ ]
- Divide proper fractions by whole numbers [for example,  $\frac{1}{3} \div 2 = \frac{1}{6}$ ]
- Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example,  $\frac{3}{8}$ ]
- Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places
- Multiply one-digit numbers with up to 2 decimal places by whole numbers
- Use written division methods in cases where the answer has up to 2 decimal places
- Solve problems which require answers to be rounded to specified degrees of accuracy
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

### Ratio and Proportion

- Solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts
- Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison
- Solve problems involving similar shapes where the scale factor is known or can be found
- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

### Algebra

- Use simple formulae
- Generate and describe linear number sequences; express missing number problems algebraically
- Find pairs of numbers that satisfy an equation with 2 unknowns
- Enumerate possibilities of combinations of 2 variables

### Statistics

- Interpret and construct pie charts and line graphs and use these to solve problems
- Calculate and interpret the mean as an average



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### Measurement

- Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate
- Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places
- Convert between miles and kilometres
- Recognise that shapes with the same areas can have different perimeters and vice versa
- Recognise when it is possible to use formulae for area and volume of shapes
- Calculate the area of parallelograms and triangles
- Calculate, estimate and compare volumes of cubes and cuboids using standard units, including cubic centimetres ( $\text{cm}^3$ ) and cubic metres ( $\text{m}^3$ ), and extending to other units [for example,  $\text{mm}^3$  and  $\text{km}^3$ ]

### Geometry – Properties of Shape

- Draw 2-D shapes using given dimensions and angles
- Recognise, describe and build simple 3-D shapes, including making nets
- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles



### Geometry – Position and Direction

- Describe positions on the full coordinate grid (all 4 quadrants)
- Draw and translate simple shapes on the coordinate plane, and reflect them in the axes

### Physical Education

- Use running, jumping, catching and throwing in isolation and in combination accurately
- Play competitive games, modified by pupils as appropriate
- Develop greater flexibility and control in gym, dance and athletics
- Take part in a variety of outdoor adventurous activities
- Compare and evaluate performances to achieve personal bests



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### Geography

- Locate the world's countries, focusing on Europe
- Study UK counties, cities, regions, physical features and land use
- Identify the lines and zones on a globe
- Compare a UK region with one in Europe and one in North or South America
- Understand key aspects of physical and human geography
- Use maps, atlases and globes
- Use eight points of the compass, four grid references, with simple symbols and keys
- Use a range of methods to study the local area

### History

- A non-European society that provides contrasts with British history
- A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066
- A local history study, tracing how several aspects of national history are reflected in the locality
- The achievements of the earliest civilisations including an overview of where and when the first civilisations appeared and an in-depth study
- Ancient Greece—a study of Greek life and achievements and their influence on the Western world

### Art and Design

- Use sketchbooks to collect, record and evaluate ideas and suggest next steps for improvement of their work and that of others
- Improve skills in drawing, painting and sculpture, using various materials and techniques with increasing competence
- Learn about great artists, architects and designers and create work in their particular style

### Computing

- Design, write and debug complex programs
- Use sequence, selection and repetition in complex programs to meet a challenge
- Use logical reasoning in a variety of computing situations
- Understand a wide range of complex computer networks (internal and external)
- Use search technologies effectively and understand that not all information is reliable
- Create a range of digital products (including for handling data) using a range of multi-media
- Use technology safely, respectfully and responsibly