



# The Raleigh Curriculum Overview Year 6



<p>English</p> <p>SEE ATTACHED SHEET</p>	<p>Art &amp; Design</p> <ul style="list-style-type: none"> <li>• Use sketchbooks to collect, record, review, revisit &amp; evaluate ideas</li> <li>• Improve mastery of techniques such as drawing, painting and sculpture with varied materials</li> <li>• Learn about great artists, architects &amp; designers</li> </ul>	<p>Geography</p> <ul style="list-style-type: none"> <li>• Understand biomes, vegetation belts, land use, economic activity, distribution of resources, etc.</li> <li>• Study a region of the Americas</li> <li>• Use 4- and 6-figure grid references on OS maps</li> <li>• Use fieldwork to record &amp; explain areas</li> </ul>	<p>Physical Education</p> <ul style="list-style-type: none"> <li>• Use running, jumping, catching and throwing in isolation and in combination</li> <li>• Play competitive games, modified as appropriate</li> <li>• Develop flexibility &amp; control in gym, dance &amp; athletics</li> <li>• Compare performances to achieve personal bests</li> </ul>
<p>Mathematics</p> <p>SEE ATTACHED SHEET</p>	<p>Design &amp; Technology</p> <ul style="list-style-type: none"> <li>• <b>Young Apprentice Project:</b> design and create</li> <li>• Use research &amp; criteria to develop products which are fit for purpose and aimed at specific groups</li> <li>• Use annotated sketches, cross-section diagrams &amp; computer-aided design</li> <li>• Analyse &amp; evaluate existing products and improve own work</li> </ul>	<p>History</p> <p><u>British History</u></p> <ul style="list-style-type: none"> <li>- Exploration through the Tudor, Elizabethan and Victorian eras.</li> </ul> <p><u>Broader History Study</u></p> <ul style="list-style-type: none"> <li>- The Aztecs</li> <li>- Tudors</li> <li>- Local history study (Lovelace)</li> </ul>	<p>Computing</p> <p><b>Sensor work/Movement</b></p> <p>Design and write simple 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. Generate appropriate inputs and predicted outputs to test programs. Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs</p> <p><b>Powerpoint, Excel-spread sheet, word typing skills, e-safety, ipad apps, taking pictures, making videos, research and databases need to be taught through other subjects</b></p>
<p>Science</p> <ul style="list-style-type: none"> <li>• Light: How light travels, Sources, shadows, reflection, making pin hole camera's and periscopes.</li> <li>• Electricity: How to label Circuit diagrams, creating series and parallel circuits, switches and buzzers and pupil led investigation.</li> <li>• Forces: Gravity, upthrust, downforce, magnetism and air- resistance.</li> <li>• Evolution and inheritance: Fossils, how living things change over time; are adapted to suit their own environment and basic genetics.</li> </ul>	<p>Modern Languages</p> <ul style="list-style-type: none"> <li>• <b>Learning French:</b> introductions and instructions</li> <li>• about myself and my family,</li> <li>• Days, months, dates and numbers</li> <li>• Food and cooking</li> <li>• Learning about the different culture</li> <li>• Communicating with a link school</li> <li>• Finding our way around</li> <li>• <b>Applying to a real life context: Paris residential visit</b></li> </ul>	<p>Music</p> <ul style="list-style-type: none"> <li>• Music that celebrates British values.</li> <li>• Modern Rock: singing with improvised/ rehearsed instruments.</li> <li>• Christmas songs / Production</li> <li>• Classroom jazz: Appraise, improvising, composing and performing.</li> <li>• Western classical musical.</li> <li>• History of music.</li> <li>• Summer production: rehearse, perform (pupil choice talent show).</li> </ul>	<p>Religious Education</p> <p>Following the agreed local syllabus, studying the following: Creation stories from different cultures and faiths; stewardship as a result of faith; scientific views of creations; living together in one world; faith through Christian and Islamic art; Easter, Pentecost and the Trinity.</p>



# Curriculum overview for Year 6

## Mathematics

### Number & PV

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 zero

Solve number and practical problems that involve all of the above.

### Addition, Subtraction, Multiplication & Division

multiply multi-digit numbers up to 4 digits by a two-digit whole number 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 with mixed operations and large numbers

identify common factors, common multiples and prime numbers use their knowledge of the order of operations to carry out calculations involving the four 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.

### Fractions (including decimals & 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,  $41 \times 21 = 81$ ]

Divide proper fractions by whole numbers [for example,  $31 \div 2 = 61$ ] 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 three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two 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 & Proportion

solve problems involving the relative sizes of two 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 two unknowns

enumerate possibilities of combinations of two variables.

### Measure

solve problems involving the calculation and conversion of units of measure, using decimal notation up to three 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 three 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 volume of cubes and cuboids using standard units, including cubic centimetres (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>), and extending to other units [for example, mm<sup>3</sup> and km<sup>3</sup>].

### 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 four quadrants)

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

### Statistics

interpret and construct pie charts and line graphs and use these to solve problems

calculate and interpret the mean as an average.



# Curriculum overview for Year 6

## English

### Reading

#### *Word Reading*

Apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), as listed in the National Curriculum Appendix, both to read aloud and to understand the meaning of new words that they meet.

#### *Comprehension*

Maintain positive attitudes to reading and understanding of what they read by:

- continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- reading books that are structured in different ways and reading for a range of purposes
- increasing their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions
- recommending books that they have read to their peers, giving reasons for their choices
- identifying and discussing themes and conventions in and across a wide range of writing
- making comparisons within and across books
- learning a wider range of poetry by heart
- preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience

Understand what they read by:

- checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
- asking questions to improve their understanding
- drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
- predicting what might happen from details stated and implied
- summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas
- identifying how language, structure and presentation contribute to meaning

Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader

Distinguish between statements of fact and opinion

Retrieve, record and present information from non-fiction

Participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously

Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary

Provide reasoned justifications for their views.

### Writing

#### *Transcription*

Spell:

Use further prefixes and suffixes and understand the guidance for adding them

Spell some words with 'silent' letters (for example, knight, psalm, solemn)

Continue to distinguish between homophones and other words which are often confused

Use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically

Use dictionaries to check the spelling and meaning of words

Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary

Use a thesaurus.

#### *Handwriting*

Write legibly, fluently and with increasing speed by:

- choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters
- choosing the writing implement that is best suited for a task.

#### *Composition*

Plan their writing by:

- identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
- noting and developing initial ideas, drawing on reading and research where necessary
- in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed

Draft and write by:

- selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
- in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action
- precisising longer passages
- using a wide range of devices to build cohesion within and across paragraphs
- using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]

Evaluate and edit by:

- assessing the effectiveness of their own and others' writing
- proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
- ensuring the consistent and correct use of tense throughout a piece of writing
- ensuring correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register

Proof-read for spelling and punctuation errors

Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.

#### *Vocabulary, grammar and punctuation*

Develop their understanding of the concepts set out in NC English Appendix 2 pg 78-79 by:

- recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
- using passive verbs to affect the presentation of information in a sentence
- using the perfect form of verbs to mark relationships of time and cause
- using expanded noun phrases to convey complicated information concisely
- using modal verbs or adverbs to indicate degrees of possibility
- using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
- learning the grammar for year 6 in NC English Appendix 2 pg 78-79

Indicate grammatical and other features by:

- using commas to clarify meaning or avoid ambiguity in writing
- using hyphens to avoid ambiguity
- using brackets, dashes or commas to indicate parenthesis
- using semi-colons, colons or dashes to mark boundaries between independent clauses
- using a colon to introduce a list
- punctuating bullet points consistently

Use and understand the grammatical terminology in NC English Appendix 2 pgs 78-79 accurately and appropriately in discussing their writing and reading.