

ENGLISH

Reading - Word Reading

1. Apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), as listed in English Appendix 1, both to read aloud and to understand the meaning of new words that they meet

Reading - Comprehension for Years 5 and 6

1. Continue to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
2. Read books that are structured in different ways and read for a range of purposes
3. Increase 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
4. Recommend books that they have read to their peers, giving reasons for their choices
5. Identify and discuss themes and conventions in and across a wide range of writing
6. Make comparisons within and across books
7. Learn a wider range of poetry by heart
8. Prepare poems and plays to read aloud and to perform, show understanding through intonation, tone and volume so that the meaning is clear to an audience
9. Check that the book makes sense to them, discuss their understanding and explain the meaning of words in context
10. Ask questions to improve their understanding
11. Draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justify inferences with evidence
12. Predict what might happen from details stated and implied
13. Summarise the main ideas drawn from more than one paragraph, identify key details that support the main ideas
14. Identify how language, structure and presentation contribute to meaning
15. Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
16. Distinguish between statements of fact and opinion
17. Retrieve, record and present information from non-fiction
18. Participate in discussions about books that are read to them and those they can read for themselves, build on their own and others' ideas and challenge views courteously
19. 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
20. Provide reasoned justifications for their views

Writing - Transcription

1. Use further prefixes and suffixes and understand the guidance for adding them
2. Spell some words with 'silent' letters
3. Continue to distinguish between homophones and other words which are often confused
4. Use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically, as listed in English Appendix 1
5. Use dictionaries to check the spelling and meaning of words
6. Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary
7. Use a thesaurus

Writing - Handwriting

1. 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
2. Write legibly, fluently and with increasing speed by choosing the writing implement that is best suited for a task

Writing - Composition

1. Plan their writing
2. Draft and write
3. Evaluate and edit by:
4. Proof-read for spelling and punctuation errors
5. Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear

Writing - Vocabulary, Grammar and Punctuation

1. Recognise vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
2. Use passive verbs to affect the presentation of information in a sentence
3. Use the perfect form of verbs to mark relationships of time and cause
4. Use expanded noun phrases to convey complicated information concisely
5. Use modal verbs or adverbs to indicate degrees of possibility
6. Use relative clauses beginning with who, which, where, when, whose, that or with an implied relative pronoun
7. Learn the grammar for years 5 and 6 in English Appendix 2
8. Use commas to clarify meaning or avoid ambiguity in writing
9. Use hyphens to avoid ambiguity
10. Use brackets, dashes or commas to indicate parenthesis
11. Use semi-colons, colons or dashes to mark boundaries between independent clauses
12. Use a colon to introduce a list

13. Punctuate bullet points consistently
14. Use and understand the grammatical terminology in English Appendix 2 accurately and appropriately in discussing their writing and reading

MATH

Number - Number and Place Value

1. Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
2. Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000
3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
4. Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000
5. Solve number problems and practical problems that involve all of the above
6. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Number - Addition and Subtraction

1. Add and subtract whole numbers with more than 4 digits, including using formal written methods
2. Add and subtract numbers mentally with increasingly large numbers
3. Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
4. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

Number - Multiplication and Division

1. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
2. Know and use the vocabulary of prime numbers, prime factors and composite numbers
3. Establish whether a number up to 100 is prime and recall prime numbers up to 19
4. 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
5. Multiply and divide numbers mentally drawing upon known facts
6. 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
7. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
8. Recognise and use square numbers and cube numbers, and the notation for squared and cubed
9. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
10. Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
11. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Number - Fractions

1. Compare and order fractions whose denominators are all multiples of the same number
2. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
3. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements greater than 1 as a mixed number
4. Add and subtract fractions with the same denominator and denominators that are multiples of the same number
5. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
6. Read and write decimal numbers as fractions
7. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
8. Round decimals with two decimal places to the nearest whole number and to one decimal place
9. Read, write, order and compare numbers with up to three decimal places
10. Solve problems involving number up to three decimal places
11. Recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
12. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$, and those fractions with a denominator of a multiple of 10 or 25

Measurement

1. Convert between different units of metric measure
2. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
3. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
4. Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres and square metres and estimate the area of irregular shapes
5. Estimate volume and capacity
6. Solve problems involving converting between units of time
7. Use all four operations to solve problems involving measure using decimal notation, including scaling

Geometry - Properties of Shape

1. Identify 3D shapes, including cubes and other cuboids, from 2D representations
2. Use the properties of rectangles to deduce related facts and find missing lengths and angles
3. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
4. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
5. Draw given angles, and measure them in degrees
6. Identify: angles at a point and one whole turn; angles at a point on a straight line and a turn; other multiples of 90

Geometry - Position and Direction

1. 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

Statistics

1. Solve comparison, sum and difference problems using information presented in a line graph
2. Complete, read and interpret information in tables, including timetables

SCIENCE

Living Things and their Habitats

1. Differences in the Life Cycles of Mammals, Amphibians, Insects and Birds
2. Describe the life process of reproduction in some plants and animals.

Forces

1. Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
2. Identify the effects of air resistance, water resistance and friction, that act between moving surfaces
3. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect

Animals, Including Humans

1. Describe the changes as humans develop to old age

Earth and Space

1. Describe the movement of the Earth, and other planets, relative to the Sun in the solar system
2. Describe the movement of the Moon relative to the Earth
3. Describe the Sun, Earth and Moon as approximately spherical bodies
4. 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

1. 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
2. Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
3. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

4. 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
5. Demonstrate that dissolving, mixing and changes of state are reversible changes
6. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

COMPUTING

Controlling Devices: Flowol

1. What is a Flowchart?
2. Programming Outputs
3. Multiple Outputs
4. Inputs and Decisions
5. Subroutines
6. Combining Skills

3D Modelling: SketchUp

1. 2D to 3D
2. Detail
3. Inside
4. Furniture
5. A Table
6. Your Room

Radio Station

1. Audacity
2. Jingles
3. Planning Podcasts
4. Recording Podcasts
5. Advertising
6. Playback and Performance