

Year 5 Maths Key Objectives

1	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
2	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals
3	Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³)
4	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
5	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
6	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
7	Establish whether a number up to 100 is prime and recall prime numbers up to 19
8	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
9	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
10	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
11	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number
12	Compare and order fractions whose denominators are all multiples of the same number
13	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
14	Add and subtract fractions with the same denominator and denominators that are multiples of the same number
15	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
16	Read and write decimal numbers as fractions
17	Round decimals with two decimal places to the nearest whole number and to one decimal place
18	Read, write, order and compare numbers with up to three decimal places
19	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
20	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
21	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
22	Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes
23	Use the properties of rectangles to deduce related facts and find missing lengths and angles
24	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
25	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations
26	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
27	Draw given angles, and measure them in degrees (°)
28	Identify angles at a point and one whole turn (total 360°); at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)
29	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
30	Complete, read and interpret information in tables, including timetables

Year 5-6 Reading Key Objectives

1	Apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), both to read aloud and to understand the meaning of new words
2	Making comparisons within and across books
3	Modern fiction, fiction from our literary heritage, and books from other cultures and traditions
4	Identifying and discussing themes and conventions in and across a wide range of writing
5	Checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
6	Asking questions to improve their understanding
7	Summarising the main ideas drawn from more than one paragraph, identifying key details to support the main ideas
8	Predicting what might happen from details stated and implied
9	Identifying how language, structure and presentation contribute to meaning
10	Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
11	Recommending books that they have read to their peers, giving reasons for their choices
12	Participate in discussions about books, building on their own and others' ideas and challenging views courteously
13	Explain and discuss their understanding of what they have read,
14	Including through formal presentations and debates,
15	Provide reasoned justifications for their views

Year 5-6 Writing Key Objectives

1	Spell some words with 'silent' letters
2	Continue to distinguish between homophones and other words which are often confused
3	Use dictionaries to check the spelling and meaning of words
4	Identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
5	Selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
6	In narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action
7	Précising longer passages
8	Using a wide range of devices to build cohesion within and across paragraphs
9	Using further organisational and presentational devices to structure text and to guide the reader
10	Ensuring the consistent and correct use of tense throughout a piece of writing
11	Ensuring correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register
12	Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.
13	Use a thesaurus

14	Using expanded noun phrases to convey complicated information concisely
15	Using modal verbs or adverbs to indicate degrees of possibility
16	Using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
17	Converting nouns or adjectives into verbs
18	Devices to build cohesion, including adverbials of time, place and number
19	Recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
20	Using passive verbs to affect the presentation of information in a sentence
21	Using the perfect form of verbs to mark relationships of time and cause
22	Differences in informal and formal language
23	Further cohesive devices such as grammatical connections and adverbials
24	Use of ellipsis
25	Using commas to clarify meaning or avoid ambiguity in writing
26	Using brackets, dashes or commas to indicate parenthesis
27	Using hyphens to avoid ambiguity
28	Using semicolons, colons or dashes to mark boundaries between independent clauses
29	Using a colon to introduce a list
30	Punctuating bullet points consistently

Year 5 Science Key Objectives

1	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
2	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs
3	Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations
4	Describe the life process of reproduction in some plants and animals.
5	Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
6	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.
7	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system
8	Use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky.
9	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
10	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces