# Mathematics

| Number and Place Value   | Addition and Subtraction   | Multiplications and Division   | Fractions   | Algebra   |  |  |  |
|--|--|--|---|---|--|--|--|
| Sufficient evidence shows the ability to:  | Sufficient evidence shows the ability to:  | Sufficient evidence shows the ability to:  | Sufficient evidence shows the ability to:   | Sufficient evidence shows the ability to:   |  |  |  |
| ability to:  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. | <ul> <li>Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.</li> <li>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.</li> <li>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.</li> <li>Perform mental calculations, including with mixed operations and large numbers.</li> <li>Identify common factors, common multiples and prime numbers.</li> <li>Use their knowledge of the order of operations involving the four operations.</li> <li>Solve addition and subtraction</li> </ul> | 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, 1/2 × 1/2 = 1/8].  Divide proper fractions by whole numbers. 1/3 ÷ 2 = 1/6  Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [e.g. 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. | <ul> <li>□ Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</li> <li>□ Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.</li> <li>□ Solve problems involving similar shapes where the scale factor is known or can be found.</li> <li>□ Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</li> </ul> | ability to:  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. |  |  |  |
|  | multi-step problems in contexts,<br>deciding which operations and<br>methods to use and why.   | Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts  |   |   |  |  |  |

|     | Measures   | Geometry – Properties of Shape  | Geometry — Position and<br>Movement   | Statistics   |
|-----|--|---|---|--|
| Suj | ficient evidence shows the ability to:   | Sufficient evidence shows the ability to:   | Sufficient evidence shows the ability to:   | Sufficient evidence shows the ability to:  |
|     | Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.  | <ul> <li>Draw 2-D shapes using given dimensions and angles.</li> <li>Recognise, describe and build simple 3-D shapes, including making nets.</li> </ul>   | <ul> <li>Describe positions on the full coordinate grid (all four quadrants).</li> <li>Draw and translate simple shapes on the coordinate plane, and</li> </ul> | <ul> <li>Interpret and construct pie charts and line graphs and use these to solve problems.</li> <li>Calculate and interpret the mean as an average.</li> </ul> |
|     | 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 to up to three decimal places. | <ul> <li>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.</li> <li>Illustrate and name parts of circles, including radius, diameter and</li> </ul> | reflect them in the axes.   | J  |
|     | Convert between miles and kilometres.  | circumference and know that the diameter is twice the radius recognise angles where they meet at a point,   | 9   |  |
|     | Recognise that shapes with the same areas can have different perimeters and vice versa.  | are on a straight line, or are vertically opposite, and find missing angles.  |   |  |
|     | Recognise when it is possible to use formulae for area and volume of shapes.   | : A   |   |  |
|     | Calculate the area of parallelograms and triangles.  | иге д   | (Cau  | ernv   |
|     | Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].                                  | Adventur  | e Explorati   | on   |

| Word Reading  Sufficient evidence shows the ability to  Sufficient evidence shows the ability to  Demonstrate a positive attitude by frequently reading a wide range of texts for pleasure, both for age-appropriate texts: modern fiction and those from our literary  Comprehension  Sufficient evidence shows the ability to  Demonstrate a positive attitude by frequently reading a wide range of texts for pleasure, both for literary with different text types specified in the YR 5-6 programme of study, which includes the properties of the programme of study, which includes the properties of the programme of study and the properties of the programme of study and the properties of the properties of the programme of study and the properties of          | Reading  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| the ability to  Demonstrate a positive attitude by frequently reading a wide range of texts for pleasure, both for read the full range of age-appropriate texts:  modern fiction and  Demonstrate a positive attitude by frequently reading a wide range of texts for pleasure, both for the fill range of texts for pleasure, both for age-appropriate texts:  modern fiction and  Recommend books to others giving reasons for their choices: state preferences  | Comprehension  |  |  |  |  |  |  |
| heritage; books from other cultures; myths, legends and traditional stories; poetry; plays; non-fiction and reference or text books.  Determine the meaning of new words by applying morphological knowledge of root words and affixes e.g. ambitious, infectious, observation, innocence.  Use appropriate intonation, tone and volume when reciting or reading aloud to an audience, to make the meaning clear.  Accurately identify and comment on the features, themes and conventions across a range of wr of the points, to the features in texts (e.g. columns, bullet points, to meaning.  Use contextual evidence to make sense of the text; explore finer meanings of words; show, discume and experiment questions.  Use appropriate intonation, tone and volume when reciting or reading aloud to an audience, to make the meaning clear.  Make developed inferences e.g. characters' thoughts and motives, or identify an inferred atmosp to support reasoning; make predictions which are securely rooted in the text.  Distinguish between fact and opinion.  Retrieve, record and present information from non-fiction texts.  Identify key details which support main ideas; summarise content drawn from more than one propriate in discussion about books, expressing and justifying opinions, building on ideas, and presentation and surface and presentation and presentation and convertional presentation and presentation and presentation and presentation and presentation and presentation and presentational features in texts (e.g. columns, bullet points, to meaning.  Identify language, structural and presentational features in texts (e.g. columns, bullet points, to meaning.  Identify the effect of language, including figurative; explain and evaluate its effect e.g. impact of a chosen simile; personification.  During discussion, ask pertinent questions to enhance understanding.  Make accurate and appropriate comparisons within and across different texts.  Distin | ude modern fiction and fiction from our sand a range of non-fiction texts.  Sing, and understand their use.  Soles) and explain how they contribute to sand explore their understanding of the a word or phrase on the reader; the suitability where; explain and justify with textual evidence ragraph.  Challenging others' views courteously. |  |  |  |  |  |  |

| Writing  |   |   |   |  |  |  |  |
|--|---|---|---|--|--|--|--|
| Transcription  |   | Composition   |   |  |  |  |  |
| Spelling Handwriting   |   | Composition: structure and purpose  | Vocabulary, grammar and punctuation   |  |  |  |  |
| to  Write from memory, dictated sentences which include words and punctuation from the ks2 | Evidence:  Writing is legible and fluent. (Quality may not be maintained at speed.)  Correct choice is made about whether to join handwriting or print letters e.g. to label a diagram. | <ul> <li>Sufficient evidence shows the ability to</li> <li>Discuss and develop ideas; routinely use the drafting process before and during writing.</li> <li>Adapt form and style to suit purpose and audience; draw appropriate features from models of similar writing.</li> <li>Use paragraphs to develop and expand some ideas in depth; add detail within each paragraph; coverage may not always be even.</li> <li>Use a range of devices to link ideas within and across paragraphs e.g. adverbials or repetition of a phrase.</li> <li>Use a range of presentational devices, including use of bullet points, tables and columns, to guide the reader.</li> <li>Integrate dialogue to convey character and advance the action.</li> <li>Describe characters, settings and atmosphere, with some precision. θ Summarise longer passages, when required.</li> <li>Evaluate own and others' writing; proof read, edit and revise.</li> </ul> | Sufficient evidence shows the ability to  Write a range of sentence structures (simple and complex) including relative clauses e.g. using 'that', 'which'.  Use a wide range of punctuation including brackets and dashes; commas for pauses; colons and semi-colons for lists; hyphens; consistent use of bullet points.  Use modal verbs to indicate degrees of possibility.  Maintain correct tense; also control perfect form of verbs e.g. He has collected some shells.  Understand and use active and passive voice.  Identify the subject and object.  Identify synonym and antonym.  Select vocabulary and grammar to suit formal and informal writing.  Use vocabulary which is varied, interesting and precise.  Use a dictionary and thesaurus to define words and expand vocabulary. |  |  |  |  |