# Mathematics

Number and Place Value	Addition and Subtraction	Multiplications and Division	Fractions			
Sufficient evidence shows the ability to:  Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.  Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.  Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10 000 and 100 000.  Solve number problems and practical problems that involve all of the above.  Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	Sufficient evidence shows the ability to:  Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).  Add and subtract numbers mentally with increasingly large numbers.  Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.  Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why.	Sufficient evidence shows the ability to:  Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.  Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers.  Establish whether a number up to 100 is prime & recall prime numbers up to 19.  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.  Multiply and divide numbers mentally drawing upon known facts.  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 Multiply and divide whole numbers and those involving decimals by 10, 100 &1000.  Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).  Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.  Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.  Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	Sufficient evidence shows the ability to:  Compare and order fractions whose denominators are all multiples of the same number.  Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.  Recognise mixed numbers and improper fractions and convert from one form to the other & write mathematical statements > 1 as a mixed number [2/5 + 4/5 = 6/5 = 1 1/5].  Add and subtract fractions with the same denominator and denominators that are multiples of the same number.  Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.  Read and write decimal numbers as fractions [for example, 0.71 = 71/100].  Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.  Round decimals with two decimal places to the nearest whole number and to one decimal place.  Read, write, order & compare numbers with up to three decimal places.  Solve problems involving number up to three decimal places.  Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred', write percentages as a fraction with denominator 100, & as a decimal.  Solve problems which require knowing percent & decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.			

Measures	Geometry – Properties of Shape	Geometry – Position and Movement	Statistics
Sufficient evidence shows the ability to:  Convert between different units of metric measure (for example, kilometre and metre; centimetre and millimetre; gram and kilogram; litre & millilitre).  Understand and use approximate equivalences between metric units and common imperial units such as	Sufficient evidence shows the ability to:  Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.  Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.  Draw given angles, and measure them in degrees (°).	Sufficient evidence shows the ability to:  □ 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.	Sufficient evidence shows the ability to:  Solve comparison, sum and difference problems using information presented in a line graph.  Complete, read and interpret information in tables, including timetables.
inches, pounds and pints.  Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.	whole turn (total 360°) angles at a point on a straight line & 1/2 a turn (total 180°) and other multiples of 90°.		
<ul> <li>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes.</li> </ul>	Use the properties of rectangles to deduce related facts and find missing lengths and angles distinguish between regular and irregular polygons based on reasoning about equal sides and	-	
□ Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water].	angles.	cade	mv
□ Solve problems involving converting between units of time. □ Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	Adventure	Exploratio	n

#### Reading Word Reading Comprehension Sufficient evidence shows the ability to... Sufficient evidence shows the ability to... ☐ Fluently and automatically read a Read and enjoy a growing repertoire of texts, both fiction and non-fiction. range of age-appropriate texts from Be familiar with some of the text types specified in the YR 5-6 programme of study, which include modern the following: modern fiction and fiction and fiction from our literary heritage; books from other cultures; myths, legends and traditional stories; those from our literary heritage; poetry, plays and a range of non-fiction texts. Recommend books they have read to their peers, giving reasons. books from other cultures; myths, legends and traditional stories; Discuss and comment on themes and conventions in a variety of genres. poetry; plays; non-fiction and Read and recite age-appropriate poetry which has been learned by heart. reference or text books. Provide straightforward explanations for the purpose of the language, structure and presentation of texts e.g. Determine the meaning of new bullet points; how a letter is set out; introductory paragraphs. words by applying morphological Discuss their understanding of the meaning of words in context, finding other words which are similar. knowledge of root words and affixes Discuss and evaluate how authors use language, including figurative language (e.g. simile, imagery) and its e.g. suspect/suspicious, effect on the reader. change/changeable, Readily ask questions to enhance understanding. receive/reception. Make comparisons within and across texts e.g. compare two ghost stories. ☐ Know securely the different Draw inferences and justify these with evidence from the text e.g. explain how a character's feelings changed pronunciations of words with the and how they know this; make predictions. same letter-string e.g. bought, Distinguish fact from opinion with some success. rough, cough, though, plough. Retrieve, record and present information from non-fiction texts. ☐ Use appropriate intonation, tone and Summarise main ideas from more than one paragraph, identifying key details which support these. volume when reciting or reading Participate in discussion about books, expressing and justifying opinions, building on ideas, and challenging aloud to an audience, to make the others' views courteously. meaning clear. Explain what they know or have read, including through formal presentation and debates, using notes where necessary.

#### Writing **Transcription** Composition Composition: structure and Vocabulary, grammar and Spelling Handwriting punctuation purpose Sufficient evidence shows the ability to... Sufficient evidence shows the ability to... Evidence: Sufficient evidence shows the ability to... Writing is legible and becoming Write a range of sentence structures □ Write from memory, dictated Discuss and develop initial ideas in order to plan and draft before writing. which are grammatically accurate. sentences which include words from increasingly fluent. (Quality may not be maintained at speed.) Understand 'relative clause' which the ks2 curriculum. begins with relative pronouns: who, Write to suit purpose and with a Correct choice is made about whether Spell most words with prefixes and growing awareness of audience, using which, where, when, whose. suffixes in the YR 3-4 spelling to join handwriting or print letters e.g. appropriate features. appendix and some from the YR 5-6 to label a diagram. Demarcate sentences correctly. Use e.g. cious, cial, ant, ent, ance, ence. May include humour or suspense comma for a pause in complex Spell correctly words with letters sentences. which are not sounded e.g. knight, Organise writing into sections or solemn. paragraphs; create cohesion by linking Begin to use punctuation for ideas within paragraphs. (Joins parenthesis: brackets, commas, dashes. between sections may need Use the hyphen to join a prefix to a root e.g. re-enter. development; coverage within sections Indicate degrees of possibility using adverbs e.g. perhaps, surely; and modal may vary.) Spell some homophones from the YR verbs e.g. might, should, must. 5-6 spelling appendix. Use a range of presentational devices, including use of title, subheadings and Usually maintain correct tense. □ Spell the majority of words from the bullet points. YR 3-4 statutory word list and some Begin to recognise active and passive words from the YR 5-6. Use dialogue to indicate character and voice. Identify and select determiners. Describe characters, settings and plot, with growing precision. Choose vocabulary and grammar to suit formal and informal writing, with Find key words and ideas; begin to quidance. write a summary. Use vocabulary which is becoming more Evaluate own and others' writing: precise. with direction, proof read, edit and Use a dictionary and thesaurus to check revise. the meaning of words and expand vocabularu.