

		Band 5					
Number and Place Value	Addition and subtraction	Multiplication and division	Fractions	Measurement	Properties of space	Position and direction	Statistics
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. I can recognise and describe linear number sequences including those involving fractions and decimals and find the term to term rule. (add half) 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 through zero. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.	Add and subtract whole numbers with more than 4 digits, including using efficient written methods (column addition and subtraction). Add and subtract numbers formally and mentally with increasingly large numbers using formal column addition. Add and Subtract a mix of whole numbers and decimals with different numbers of decimal places using column subtraction. Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and	Quickly recall all the multiplication and division facts for tables up to 12x12 and can use them confidently in larger calculations. Identify multiples and factors, including finding all factor pairs and common factors of 2 numbers. Solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors. Multiply TUXTU using diagrams, arrays and grids. Multiply TUXTU using an expanded written strategy. Multiply TUXTU using long multiplication. Solve more complex problems involving division including with remainders and round the answer appropriately in context. Know and use the vocabulary of prime numbers, prime factors and composite (non- prime) numbers. I can recognise squared and cubed	Pupils should be taught to: compare and order add and subtract fractions whose denominators are all multiples of the same number. Compare and order whole numbers and decimals with up to 2 places. Recognise mixed numbers and improper fractions and convert from one form to the other. Add and subtract fractions with the same denominator and related fractions; write mathematical statements >1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 11/5). Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions (e.g. 0.71 = 71/100).	Convert between different units of measure (e.g. kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre) using my understanding of times and divide by 10, 100 and 1000. Understand and use basic equivalences between metric and common imperial units and express them in approximate terms. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. Find unknown lengths on rectangles and rectilinear shape using my own understanding of perimeter and area. Estimate the area of irregular shapes. Calculate and compare the area of squares and rectangles	Identify 3-D shapes, including cubes and cuboids, from 2-D representations. Know angles are measured in degrees; estimate and measure them and draw a given angle, writing its size in degrees (o). Identify: multiples of 90o angles at a point on a straight line and 1/2 a turn (total 180o) angles at a point and one whole turn (total 360o) reflex angles, and compare different angles: Identify and compare acute, obtuse and reflex angles. I can calculate missing angles on a straight line 180, or at a point 360, or within a right angle 90. Draw shapes using given dimensions and	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 after a reflection on a line parallel to the axis. Solve comparison, sum and difference problems using information presented in line graphs. Complete, read and interpret information in tables, including timetables. I can decide which representations of data are most appropriate and explain why.	

Solve number problems and practical problems that involve all of the above and present my investigation in a clear and organised way. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	why.	numbers and use the correct notation. I can work out if a number up to 100 is a prime number and have a quick recall of all the prime numbers to 19. Establish whether a number up to 100 is prime and recall prime numbers up to 19. Begin to represent a remainder as a fraction or a decimal. Divide 4 digit and 3 digit numbers by 1 digit using short division. I can use all 4 operations to solve equivalent statements. ($5x = 18 + 12$) Multiply and divide numbers mentally drawing upon known facts. Divide numbers up to 4 digits by a one-digit number using the efficient written method of short division and interpret remainders appropriately for the context. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 using the formal vertical method in the context of money. Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3). 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.	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 and compare numbers with up to three decimal places. Solve problems involving number up to three decimal places. 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 hundred, and as a decimal fraction. 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 with a denominator of a multiple of 10 or 25.	including using standard units, and practical materials, square centimetres (cm²) and square metres (m²). Estimate the area of irregular shapes recognise and estimate volume (e.g. using 1 cm³ blocks to build cubes and cuboids) and capacity (e.g. using water). Solve problems involving converting between units of time (expressing the answer as days and weeks) Solve problems involving all 4 operations of units of measure (e.g. length, mass, volume, scaling money) using decimal notation. Solve problems involving time, including reading simple timetables.	angles state and use the properties of a rectangle (including squares) to deduce related facts. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. – using my knowledge of lengths of size and angles.		
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