Place Value	determine the	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	read, write, order and compare numbers with up to three decimal places	count forwards and backwards in simple fractions	round any number up to 100 000 to the nearest 10, 100, 1000 and 10 000	round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	round decimals with two decimal places to the nearest whole number and to one decimal place	multiply and divide whole numbers by 10, 100 and 1000	multiply and divide decimal numbers by 10, 100 and 1000	convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	solve number problems and practical problems that involve all of the above	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0	read Roman numerals to 1000 (M) and recognise years written in Roman numerals
Addition and Subtraction	add and subtract numbers mentally with increasingly large numbers using Year 5 mental calculation strategies		add and subtract two 4 digit numbers with more than one exchange	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtractio n)	add and subtract decimals, including a mix of whole numbers and decimals, decimals with different numbers of decimal places, and complement s of 1 (for example, 0.83 + 0.17 = 1).	use the inverse to check calculations	oporationa	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy						

Year 5

Multiplication and Division	multiply and divide whole numbers by 10, 100 and 1000 (PV)	multiply and divide whole numbers and decimals by 10, 100 and 1000 (PV)	recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	multiply and divide numbers mentally drawing upon known facts eg: I know 300x4 because I know 3x4	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 and recall prime numbers up to 19	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	multiply numbers up to 4 digits by a one- digit number using a formal written method	multiply numbers up to 4 digits by a two-digit number using a formal written method, including long multiplicatio n for two- digit numbers	number using the formal written method (as fractions for example) of short division and	solve problems involving multiplicatio n and division, including scaling by simple fractions and problems involving simple rates	multiplicati on and division and a combinatio n of these, including understand ing the
Fractions	read, write, order and compare numbers with up to three decimal places (PV)	compare and order fractions whose denominato rs are all multiples of the same number	be able to find fractions of numbers and quantities	same denominat or and denominat	multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	and convert from one form to the other and	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	read and write decimal numbers as fractions [for example, 0.71 = 71/100]	recognise and use thousand ths and relate them to tenths, hundredt hs and decimal equivalen ts	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	know fraction, decimal and percentage equivalents	□ solve problems which require knowing percentage and 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.	
Algebra	N/A												-

Measurement	convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) In PV	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	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	estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	**tell the time using digital, analogue and 24 hour clock (**Ongoing throughout the year)	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.	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
Ratio and Proportior	N/A							
Geometry	identify 3-D shapes, including cubes and other cuboids, from 2-D representation S	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	identify: angles at a point and one whole turn (total 360o) angles at a point on a straight line and 1/2 a turn (total 180o) other multiples of 90o	draw given angles, and measure them in degrees (o)	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 angles	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	including continuing to

Statistics	read and interpret line graphs	draw line graphs	solve comparison, sum and difference problems using information presented in a line graph	complete, read and interpret informatio n in tables, including timetables
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