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Oxford Diocesan
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THE BATT C.E. SCHOOL

Year group	Aspect (White Rose)	Target Tracker Statements	Prioritisation statements
1	Place Value (within 10)	- Identify one more and one less of a given number - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least	**Ready to progress assessment material - year 1** - Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. - Develop fluency in addition and subtraction facts within 10. - Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers. - Read, write and interpret equations containing addition ( ), subtraction ( ) and equals ( ) symbols, and relate additive expressions and equations to real-life contexts - Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = - Count within 100, forwards and backwards, starting with any number. - Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. - Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.
	Addition and Subtraction (within 10)	- Read and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs - Write mathematical statements involving addition (+), subtraction (-) and equals (=) signs - Demonstrate an understanding of the commutative law (e.g. 3 + 2 = 5, therefore 2 + 3 = 5) - Demonstrate an understanding of inverse relationships involving addition and subtraction (e.g. if 3 + 2 = 5, then 5 – 2 = 3) - Recall at least four of the six number bonds for 10 and reason about associated facts (e.g. 6 + 4 = 10 , therefore 4 + 6 = 10 and 10 – 6 = 4) - Solve one-step problems that involve addition, subtraction and missing numbers using concrete objects and pictorial representations	
	Shape	- Recognise and name common 2-D shapes e.g. rectangles (including squares), circles and triangles - Recognise and name common 3-D shapes e.g. cuboids (including cubes), pyramids and spheres	
	Place Value (within 20)	- Read and write numbers from 1 to 20 in numerals - Read and write numbers from 1 to 20 in words	
	Addition and Subtraction (within 20)	- Represent and use number bonds within 20 - Represent and use subtraction facts within 20 - Add one-digit and two-digit numbers to 20, including zero - Subtract one-digit and two-digit numbers to 20, including zero	
	Place Value (within 50)	- Count in multiples of twos, fives and tens from 0 - Identify one more and one less of a given number - Partition and combine numbers using apparatus if required e.g. partition 76 into tens and ones; combine 6 tens and 4 ones	
	Addition and Subtraction (within 50)	Identify one more and one less of a given number	
	Length & Height	- Compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half - Measure and begin to record length/height	
	Weight and Volume	- Compare, describe and solve practical problems for mass/weight e.g. heavy/light, heavier than, lighter than - Compare, describe and solve practical problems for capacity and volume e.g. full/empty, more than, less than, half, half full, quarter - Measure and begin to record mass/weight - Measure and begin to record capacity and volume	
	Multiplication and Division	- Solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher - Solve one-step problems involving division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	

		• Count in multiples of twos, fives and tens from 0 • Count in twos, fives and tens to solve problems e.g. count the number of chairs in a diagram when the chairs are organised in 7 rows of 5 by counting in fives	
	Fractions	• Solve one-step problems involving division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher • Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity •	
	Position and Directions	• Sequence events in chronological order using language e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening • Recognise and use language relating to dates, including days of the week, weeks, months and years • Describe position, direction and movement, including whole, half, quarter and three-quarter turns	
	Place value (within 100)	• Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • Count and read numbers to 100 in numerals • Count and write numbers to 100 in numerals • Identify one more and one less of a given number • Partition and combine numbers using apparatus if required e.g. partition 76 into tens and ones; combine 6 tens and 4 ones	
	Money	• Recognise and know the value of different denominations of coins and note	
	Time	• Compare, describe and solve practical problems for time e.g. quicker, slower, earlier, later • Measure and begin to record time (hours, minutes, seconds) • Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	
2	Place Value	• Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • Recognise the place value of each digit in a two-digit number (tens, ones) • Identify, represent and estimate numbers using different representations, including the number line • Compare and order numbers from 0 up to 100; use <, > and = signs • Read and write numbers to at least 100 in numerals • Read and write numbers to at least 100 in words • Use place value and number facts to solve problems • Partition two-digit numbers into different combinations of tens and ones using apparatus if needed e.g. 23 is the same as 2 tens and 3 ones which is the same as 1 ten and 13 ones • Use reasoning about numbers and relationships to solve more complex problems and explain his/her thinking e.g. 29 + 17 = 15 + 4 + ?; 'Together Jack and Sam have £14. Jack has £2 more than Sam. How much money does Sam have?' etc. • Recall the multiples of 10 below and above any given 2 digit number e.g. say that for 67 the multiples are 60 and 70	**Ready to progress assessment material** - year 2 • Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and nonstandard partitioning • Reason about the location of any twodigit number in the linear number system, including identifying the previous and next multiple of 10. • Secure fluency in addition and subtraction facts within 10, through continued practice. • Add and subtract across 10. • Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". • Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a twodigit number. • Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 twodigit numbers. • Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. • Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division). • Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.
	Addition and Subtraction	• Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures • Solve problems with addition and subtraction applying his/her increasing knowledge of written methods and mental methods where regrouping may be required • Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. If 7 + 3 = 10, then 17 + 3 = 20; if 7 – 3 = 4, then 17 – 3 = 14; leading to if 14 + 3 = 17, then 3 + 14 = 17, 17 – 14 = 3 and 17 – 3 = 14) • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • Add and subtract numbers where no regrouping is required, using concrete objects, pictorial representations, and mentally, including a two-digit number and ones • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and tens • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including two two-digit numbers • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding three one-digit numbers	

		- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot - Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems - Recall doubles and halves to 20 e.g. knowing that double 2 is 4, double 5 is 10 and half of 18 is 9 - Use estimation to check that his/her answers to a calculation are reasonable e.g. knowing that 48 + 35 will be less than 100 - Solve missing number problems using addition and subtraction
	Shape	- Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line - Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces - Name some common 2-D and 3-D shapes from a group of shapes or from pictures of the shapes and describe some of their properties (e.g. triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres) - Identify 2-D shapes on the surface of 3-D shapes e.g. a circle on a cylinder and a triangle on a pyramid - Compare and sort common 2-D and 3-D shapes and everyday objects describing similarities and differences e.g. find 2 different 2-D shapes that only have one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices and describe what is different about them - Order and arrange combinations of mathematical objects in patterns and sequences
	Money	- Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value - Find different combinations of coins that equal the same amounts of money - Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
	Multiplication and Division	- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers - Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs - Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot - Solve problems involving multiplication and division, using concrete materials and mental methods - Solve problems involving multiplication and division, using arrays, repeated addition and multiplication and division facts, including problems in contexts e.g. knowing that 2 × 7 = 14 and 2 × 8 = 16, explains that making pairs of socks from 15 identical socks will give 7 pairs and one sock will be left - Use multiplication and division facts for 2, 5 and 10 to make deductions outside known multiplication facts e.g. know that multiples of 5 have one digit of 0 or 5 and use this to reason that 18 × 5 cannot be 92 as it is not a multiple of 5 - Solve word problems involving multiplication and division with more than one step e.g. which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet - Recognise the relationships between addition and subtraction and rewrite addition statements as simplified multiplication statements e.g. 10 + 10 + 10 + 5 + 5 = 3 × 10 + 2 × 5 = 4 × 10
	Length and Height	Compare and order lengths, mass, volume/capacity and record the results using >, < and =
	Mass, Capacity and Temperature	- Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels - Read scales in divisions of ones, twos, fives and tens - Read scales where not all numbers on the scale are given and estimate points in between
	Fractions	Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of

		objects or quantity and demonstrate understanding that all parts must be equal parts of the whole ● Write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and ½	
	Time	● Compare and sequence intervals of time ● Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times ● Remember the number of minutes in an hour and the number of hours in a day ● Read the time on a clock to the nearest 15 minutes	
	Statistics	● Interpret and construct simple pictograms, tally charts, block diagrams and simple tables ● Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ● Ask and answer questions about totalling and comparing categorical data	
	Position and Direction	● Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	
3	Place Value	● Count from 0 in multiples of 4, 8, 50 and 100 ● Find 10 or 100 more of less than a given number ● Recognise the place value of each digit in a three digit number (hundreds, tens and ones) ● Compare and order numbers up to 1000 ● Identity, represent and estimate numbers using different representations ● Read and write numbers up to 100 in numerals ● Read and write numbers up to 1000 in words ● Solve number problems and practical problems involving these ideas	
	Addition and Subtraction	● Add and subtract numbers mentally, including a three-digit number and ones ● Add numbers with up to three digits using the formal method of columnar addition ● Add and subtract numbers mentally, including a three-digit number and tens ● Subtract numbers with up to three digits using the formal method of columnar subtraction ● Add and subtract numbers mentally, including a three-digit number and hundreds ● Estimate the answer to a calculation and use inverse operations to check answers ● Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	
	Multiplication and Division A Multiplication and Division B	● Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables ● Write and calculate mathematical statements for multiplication and division using the multiplication tables that he/she knows, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods ● Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	
	Length and Perimeter	● Solve number problems and practical problems involving these ideas ● Measure the perimeter of simple 2D shapes	
	Fractions A	● Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 ● Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators ● Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators ● Recognise and show, using diagrams, equivalent fractions with small denominators ● Add fractions with the same denominator within one whole e.g. 5/7 + 1/7 = 6/7 ● Subtract fractions with the same denominator within one whole e.g. 6/7 - 1/7 = 5/7 ● Compare and order unit fractions, and fractions with the same denominators ● Solve fraction problems ● Record 1/10 as 0.1, 3/10 as 0.3 etc	
	Mass and Capacity	● Measure, compare, add and subtract lengths (m,cm,mm); mass (g/Kg) and volume (l/ml)	
	Fractions B	See above	

	Money	• Add and subtract amounts of money to give change, using both £ and p in practical contexts	
	Time	• Tell the time on an analogue clock, including roman numerals and 12 and 24 hour clock • Write the time using an analogue clock, including roman numerals, 12 hour and 24 hour clock • Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours. Use vocabulary such as O'clock, am, pm, morning, afternoon, noon and midnight • Know the number of seconds in a minute, the number of days in each month, year and leap year • Compare durations of events	
	Shape	• Draw 2D shapes and make 3D shapes using modeling materials • Recognise 3D shapes in different orientations and describe them • Identify right angels and identify whether other angles are greater or less than a right angle • Recognise that two right angles make a half turn, three make three quarters of a turn and four make a complete turn • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	
	Statistics	• Interpret and present data using bar charts, pictograms and tables • Solve one-step and two-step questions eg: how many more? how many fewer? Using information presented in scaled bar charts, pictograms and tables.	
4	Place Value	• Count in multiples of 6, 7, 9, 25 and 1000 • Find 1000 more or less than a given number • Count backwards through zero to include negative numbers • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations including measures • Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve all of the above and with increasingly large positive numbers • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value •	**Ready to Progress assessment** - Year 4 • Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100. • Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard partitioning. • Reason about the location of any fourdigit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each. • Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. • Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number. • Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. • Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) • Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. • Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. • Understand and apply the distributive property of multiplication. • Reason about the location of mixed numbers in the linear number system. • Convert mixed numbers to improper fractions and vice versa. • Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. • Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. • Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons. • Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.
	Addition and Subtraction	• Add numbers with up to four digits using the formal method of columnar addition • Estimate and use inverse operations to check answers to a calculation • Subtract numbers with up to four digits using the formal method of columnar subtraction • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	
	Multiplication and Division A	• Recall multiplication and division facts for multiplication tables up to 12 × 12 • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • Recognise and use factor pairs and commutativity in mental calculations • Multiply two-digit and three-digit numbers by a one-digit number using formal written layout • Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	
	Multiplication and Division B		
	Length and Perimeter	• Convert between different units of measure (eg: Km and Miles) • Measure and calculate the perimeter of rectilinear figure (including squares) in cm and m • Find the area of rectilinear shapes by counting squares	
	Fractions	• Recognise and show, using diagrams, families of common equivalent fractions • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number • Add and subtract fractions with the same denominator • Recognise and write decimal equivalents of any number of tenths or hundredths • Recognise and write decimal equivalents to 1/4, 1/2, ¾ • Find the effect of dividing a one- or two digit numbers by 10 and 100, identifying the value of it's digits in the answer as ones, tenths or hundredths	
	Decimals A		
	Decimals B		

		• Round decimals with one decimal place to the nearest whole number • Compare numbers with the same number of decimal places up to two decimal places	
	Money	• Convert between different units of measure e.g. kilometre to metre; hour to minute • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • Find the area of rectilinear shapes by counting squares Estimate, compare and calculate different measures, including money in pence and pounds	
	Time	• Read, write and convert time between analogue, 12 and 24 hour clocks • Solve problems involving converting from hours to minutes, minutes to seconds, years to months and weeks to days.	
	Shape	• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • Identify acute and obtuse angles and compare and order angles up to two right angles by size • Identify lines of symmetry in 2-D shapes presented in different orientations • Complete a simple symmetric figure with respect to a specific line of symmetry • Begin to recognise where angles are greater than two right angles. Know the term straight angle referring to two right angles together	
	Statistics	• Interpret and present data using bar charts, pictograms and tables • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	
	Position and Direction	• Describe positions on a 2-D grid as coordinates in the first quadrant • Describe movements between positions as translations of a given unit to the left/right and up/down • Plot specified points and draw sides to complete a given polygon	
5	Place Value	• Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit e.g. what is the value of the '7' in 276,541? Find the difference between the largest and smallest whole numbers that can be made from using three digits • 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 ordering and comparing numbers to 1 000 000, counting forwards or backwards in steps, interpreting negative numbers and rounding • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	**Ready to Progress assessment - Year 5** • Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01. • Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning. • Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each. • Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. • Convert between units of measure, including using common decimals and fractions • Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. • Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth). • Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. • Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors. • Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. • Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context. • Find non-unit fractions of quantities. • Find equivalent fractions and understand that they have the same value and the same position in the linear number system. • Recall decimal fraction equivalents for , , and , and for multiples of these proper fractions. • Compare angles, estimate and measure angles in degrees (°) and draw
	Addition and Subtraction	• 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 multi-step problems in contexts, deciding which operations and methods to use and why	
	Multiplication and Division A	• 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 (non-prime) numbers • Establish whether a number up to 100 is prime and 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 and 1000 • Recognise and use square numbers and the notation for squared (2) • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • Recognise and use cube numbers and the notation for 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	angles of a given size. • Compare areas and calculate the area of rectangles (including squares) using standard units.
	Fractions A	• Compare and order fractions whose denominators are all multiples of the same number • Identify and name equivalent fractions of a given fraction, represented visually, including tenths and hundredths • 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 and write mathematical statements > 1 as a mixed number e.g. 2/5 + 4/5 = 6/5 = 1 ⅕# • 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 e.g. 0.71 = 71/100, 8.09 = 8 + 9/? • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Solve problems involving number up to three decimal places • 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	
	Multiplication and Division B	See above	
	Fractions B	See Fractions A	
	Decimals and Percentages	[See fractions] • 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 • 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 decimals • 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	
	Perimeter and Area	• Measure and calculate the perimeter of composite rectilinear shapes in cm and m • Calculate and compare the area of rectangles (including squares) and including using standard units, squares cm and square metres. • Estimate the areas of irregular shapes. •	
	Statistics	• Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables, including timetables	
	Shape	• 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 (°) • Identify angles at a point and one whole turn (total 360°) • Identify angles at a point on a straight line and 1/2 a turn (total 180°) • Identify other multiples of 90° • 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	
	Position and Direction	• 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	
	Decimals	See above	
	Negative Numbers	[See place value] • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • Solve number problems and practical problems that involve ordering and comparing numbers to 1 000 000, counting forwards or backwards in steps, interpreting negative numbers and	

		rounding	
	Converting Units	• Convert between different unites of metric measurements (km to mile, cm - m, cm - mm, g - Lg, L - ml) • Understand na duse approximate equivalences between metric units and common imperial units such as inches, pounds and pints • Solve problems converting between units of time • Use all four operations to solve problems involving measure: length, mass, volume, money and using decimal notations including scaling	
	Volume	• Estimate volume using 1 cm cubes blocks to build cuboids and capacity (using water)	
6	Place Value	• 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 ordering and comparing numbers to 10 000 000, rounding to a required degree of accuracy, using negative numbers and calculating intervals across zero • Demonstrate an understanding of place value including decimals e.g. 28.13 = 28 + ? + 0.03	**Ready to Progress assessment - Year 6** • Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). • Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and nonstandard partitioning.
	Addition, Subtraction, Multiplication and Division	• Perform mental calculations with mixed operations to carry out calculations involving the four operations • Solve multi-step problems in contexts, deciding which operations and methods to use and why e.g. find the change from £20 for three items that cost £1.24, £7.92 and £2.55; a roll of material is 6m long: how much is left when 5 pieces of 1.15m are cut from the roll?; a bottle of drink is 1.5 litres, how many cups of 175ml can be filled from the bottle, and how much drink is left? • Solve problems involving addition and subtraction • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy • Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • 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 • 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 • Perform mental calculations, including with mixed operations and large numbers • Identify common factors, common multiples and prime numbers • Use his/her knowledge of the order of operations to carry out calculations involving the four operations • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Solve problems involving addition, subtraction, multiplication and division • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	• Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. • Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts. • Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). • Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. • Solve problems involving ratio relationships. • Solve problems with 2 unknowns. • Recognise when fractions can be simplified, and use common factors to simplify fractions • Express fractions in a common denomination and use this to compare fractions that are similar in value. • Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy. • Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
	Fraction A	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • Compare and order fractions, including fractions > 1	
	Fractions B	• 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 e.g. 1/4 × 1/2 = ⅛ • Divide proper fractions by whole numbers e.g. 1/3 ÷ 2 = ⅙ • Associate a fraction with division and calculate decimal fraction equivalents e.g. know that 7 divided by 21 is the same as 7/21 and that this is equal to 1/3 and e.g. 0.375 is equivalent to ⅜ • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts e.g. one piece of cake that has been cut into 5 equal slices can be expressed as 1/5 or 0.2 or 20% of the whole cake	
	Converting Units	• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	

		● 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 ● Convert between miles and kilometres
	Ratio	● Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts e.g. find 7/9 of 108 ● Solve problems involving similar shapes where the scale factor is known or can be found ● Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
	Algebra	● Use simple formulae e.g. perimeter of a rectangle or area of a triangle ● 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
	Decimals	● 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 ● Associate a fraction with division and calculate decimal fraction equivalents e.g. know that 7 divided by 21 is the same as 7/21 and that this is equal to 1/3 and e.g. 0.375 is equivalent to ⅜ ● 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 ● Use written division methods in cases where the answer has up to two decimal places ● Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts e.g. one piece of cake that has been cut into 5 equal slices can be expressed as 1/5 or 0.2 or 20% of the whole cake ●
	Fractions, Decimals and Percentages	● Solve problems involving the calculation of percentages e.g. of measures, and such as 15% of 360 and the use of percentages for comparison
	Area, Perimeter and Volume	● Recognise that shapes with the same areas can have different perimeters and vice versa ● Recognise when it is possible to use formulae for area and volume of shapes ● Calculate the area of parallelograms and triangles ● 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 e.g. mm³ and km³
	Statistics	● Interpret and construct pie charts and line graphs and use these to solve problems ● Calculate and interpret the mean as an average
	Shape	● Draw 2-D shapes using given dimensions and angles ● Recognise, describe and build simple 3-D shapes, including making nets ● Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons ● Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius ● Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles ● Describe positions on the full coordinate grid (all four quadrants) ● Draw and translate simple shapes on the coordinate plane, and reflect them in the axis
	Position and Direction	● Describe positions on the full coordinate grid (all four quadrants) ● Draw and translate simple shapes on the coordinate plane, and reflect them in the axis