

Days Lane Mathematics Curriculum Map

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Term 1	Term 1	Term 1	Term 1	Term 1	Term 1
Number & Place Value (2) <ul style="list-style-type: none"> Count to 100 forwards & backwards, beginning with 0 or 1, from any given number e.g. 19, 18, 17, 16... Count, read & write numbers to 100 in numerals, count in multiples of twos & tens e.g. 2, 4, 6, 8, 10... Given a number, identify one more & one less. Identify and represent numbers using objects & pictorial representations including the number line, & use the language of: equal to, more than, less than (fewer), most, least. Read & write numbers from 1 to 20 in numerals. Use language of ordering e.g. first, second, third. 	Number & Place Value (4) <ul style="list-style-type: none"> Count in steps of 2, 3, and 5 from 0, and tens from any number, forward or 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. Read and write numbers to at least 100 in numerals and in words. Compare and order numbers from 0 up to 100; use <, > and = signs. Use place value and number facts to solve problems. Partition numbers in different ways e.g. $23 = 20 + 3 = 10 + 13$ 	Number & Place Value (4) <ul style="list-style-type: none"> Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Identify, represent and estimate numbers using different representations <i>including those related to measure</i>. <i>Apply partitioning related to place value using varied and increasingly complex problems.</i> Read and write numbers to at least 1000 in numerals and in words. Compare and order numbers up to 1000. Solve number problems and practical problems involving place value and rounding. 	Number & Place Value (2) <ul style="list-style-type: none"> Count in multiples of 6, 9, 25 and 1000 e.g. 625, 600, 575, 550, 525, 500, ... Find 1000 more or less than a given number e.g. $45 + 1000$, $8904 - 1000$ 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 <i>including measures and measuring instruments</i>. 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. e.g. $49 = XLIX$ Solve number and practical problems that involve place value and rounding and with increasingly large positive numbers. 	Number & Place Value (2) <ul style="list-style-type: none"> Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit e.g. <i>order a set of multi-digit numbers from smallest to largest - 37 700, 737 570, 737 507, 37 570</i> Count forwards or backwards in steps of powers of 10 from any given number up to 1 000 000 e.g. 197 000, 198 000, 199 000, 200 000, 201 000... Round any number up to 1 000 000 to the nearest 10, 100 and 1000 e.g. 265 946 to the nearest 1000 (266 000) Solve number problems and practical problems that involve number, place value and rounding e.g. <i>What number is halfway between 560 500 and 560 600?</i> 	Number & Place Value (2) <ul style="list-style-type: none"> Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit e.g. <i>What must be added to 26 523 to change it to 54 525?</i> Round any whole number to a required degree of accuracy e.g. <i>round 265 496 to the nearest 10 000 (270 000)</i> Solve number and practical problems that involve number, place value and rounding e.g. <i>What is the largest 5-digit number whose digits sum to 20? (99200). What is the smallest number which rounds to 35 000, to the nearest 1000? (34 500). What is the smallest 4-digit integer whose digits sum to 20? (10199).</i> Use negative numbers in context, and calculate intervals across zero e.g. <i>how much warmer is 5°C than -4°C? (9°C)</i>

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<p>Addition & Subtraction (8)</p> <ul style="list-style-type: none"> • Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. • Represent, <i>memorise</i>, & use number bonds and related subtraction facts within 10, in several forms e.g. $3+4=7$; $4=7-3$ • Add & subtract one-digit & 2-digit to 20 ($9+9$, $18-9$), including zero. • Solve simple one-step problems (in familiar practical contexts, including using quantities) that involve addition & subtraction, using concrete objects & pictorial representations, & missing number problems e.g. $3 + \square = 7$ • Problems should include vocabulary such as: put together, add, altogether, total, take away, more than, less than... 			<p>Addition & Subtraction (4)</p> <ul style="list-style-type: none"> • Use both mental and written methods with increasingly large numbers to aid fluency e.g. mentally calculate $540 + 400$ or $900 - 360$ • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • Estimate and use inverse operations to check answers to a calculation e.g. $8702 - 499$ is approximately $9000 - 500 = 8500$; check $8203 + 499 = 8702$ • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why e.g. It costs £3.50 for Ben to go swimming and £5.70 for his mum; how much change is there from £10? 	<p>Addition & Subtraction (2)</p> <ul style="list-style-type: none"> • 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 e.g. $12\ 462 - 2\ 300 = 10\ 162$ • 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 e.g. <i>Write a number story for this number sentence: $3709=4562+234-1087$</i> 	<p>Addition & Subtraction (4)</p> <ul style="list-style-type: none"> • Continue to practise the four operations for larger numbers using the formal written methods of columnar addition and subtraction. • Perform mental calculations, including with mixed operations and large numbers e.g. $(13\ 400 + 10\ 600) \times 4 \div 12 = 8000$ • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why e.g. <i>Write a number story for this number sentence: $23.5 = 20.4 + 4.9 - 1.8$</i> • Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy • Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy
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	<p>Addition & Subtraction (6)</p> <ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens <i>e.g.</i> $87 - 30 = 57$ Solve problems with addition and subtraction: <ul style="list-style-type: none"> using concrete objects & pictorial representations, including those involving numbers, quantities & measures. applying their increasing knowledge of mental & written methods. Begin to recall and use addition and subtraction facts to 20, <i>e.g.</i> $19 - 7 = 12$ and derive and use related facts up to 100 <i>e.g.</i> $30 = 90 - 60$ Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. 	<p>Addition & Subtraction (6)</p> <ul style="list-style-type: none"> Add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones a three-digit number and tens <i>e.g.</i> $476 + 50$ a three-digit number and hundreds. <i>two-digit numbers where the answer could exceed 100</i> Add and subtract numbers with up to three digits, using formal written methods of columnar addition. Estimate the answer to a calculation and use inverse operations to check answers <i>e.g.</i> $702 - 249$ is approximately $700 - 250 = 450$; check $453 + 249 = 702$ Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. <i>E.g. investigate the numbers which could go in the boxes when:</i> $2 \times \square = 7 + \square$ <i>E.g. There are 46 boys and 58 girls in Year 3, but 12 children are away; how</i> 		<p>Multiplication & Division (2)</p> <ul style="list-style-type: none"> <i>Continue to practise and apply multiplication tables and related division facts, committing them to memory and using them confidently to make larger calculations</i> 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 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 <i>e.g.</i> 60×9 Multiply and divide whole numbers and those involving decimals by 10, 	
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		many Year 3 children are at school?		<p>100 and 1000 e.g. $456 \div 100 = 4.56$</p> <ul style="list-style-type: none"> Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign <p>e.g. $40 \times 8 = 500 - \square$</p>	
			<p>Multiplication & Division (4)</p> <ul style="list-style-type: none"> Recall multiplication and division facts for multiplication tables up to 10×10 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 e.g. $600 \div 3 = 200$; $4 \times 6 \times 2$ Multiply two-digit and three-digit numbers by a one-digit number using formal written layout (see appendix) Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one 	<p>Ratio & Scaling (4)</p> <ul style="list-style-type: none"> Solve problems including multiplication and division, including scaling by simple fractions and problems involving simple rates. Using all four operations to solve problems including measures (for example, length, mass, volume, money) using decimal notation including scaling. Calculate the area using scale drawings. 	<p>Ratio (2)</p> <ul style="list-style-type: none"> Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts e.g. <i>adjust a recipe for 6 people, to serve 15 people</i> Solve problems involving similar shapes where the scale factor is known or can be found e.g. <i>On a map 2cm represents 1km; a road measures 7cm on the map, how long is it in real life?</i> Use the notation $a : b$ to record ratio Solve problems involving the calculation of percentages (e.g. measures) such as 15% of


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			<p>digit e.g. $34 \times 6 = (30 \times 6) + (4 \times 6)$, integer scaling problems and harder correspondence problems such as n objects are connected to m objects e.g. 3 skirts and 4 tops, how many different outfits?</p>		<p>360 and the use of percentages for comparison</p> <ul style="list-style-type: none"> • Link percentages of 360° to calculating angles of pie charts • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples e.g. the ratio of boys to girls in class 6 is 1:2; there are 8 boys, how many girls are there?.
					<p>Algebra (2)</p> <ul style="list-style-type: none"> • Use symbols and letters to represent variables and unknowns in mathematical situations... <ul style="list-style-type: none"> ○ missing numbers, lengths, coordinates and angles e.g. $5y+1=16$ or the angles in an isosceles triangle are 50°, y° and y°; find y ○ mathematics and science formulae e.g. $P=2(l+w)$ ○ arithmetic rules e.g. $a \times b = b \times a$ ○ generalising number patterns e.g. 3, 6, 9, 12, ... $3n$

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					<ul style="list-style-type: none"> ○ <i>number puzzles e.g. $a+b=8.5$ and $a \times 6=15$; find a and b</i> • <i>Express missing number problems algebraically e.g. the perimeter of a triangle is 20cm; it has two sides of length 8cm; what is the length of the other side? ($20=2 \times 8+x$ so $x=4\text{cm}$)</i> • <i>Use simple formulae expressed in words e.g. write a formula for the cost of a party, C, which costs £100 plus £2 per person, n. ($C=100+2n$)</i> • <i>Enumerate all possibilities of combinations of two variables e.g. investigate all possible half-time scores when the full time score of a football match is 4:2</i> • <i>Generate and describe linear number sequences e.g. write the first 5 terms in a 'decrease by 9' sequence starting from 20, or find the nth term of a simple sequence e.g. 4, 8, 12, 16, ... $4n$</i> • <i>Find pairs of numbers that satisfy number sentences involving two unknowns. e.g. $a - b = 5$, give pairs of</i>
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					values that a and b could have (e.g. 8, 3 or 6.5, 1.5 or ...) or. $p \times q = 24$; if p and q are both positive, even numbers, list all the possible combinations (e.g. 2×12 , 4×6 , ...)
Measurement (4) <ul style="list-style-type: none"> Compare, describe & solve problems for: <ul style="list-style-type: none"> Lengths & heights e.g. long/short, longer/shorter, tall/short, double/half Mass or weight e.g. heavy/light, heavier than, lighter than Capacity/volume e.g. full/empty, more than, less than Time e.g. quicker, slower, earlier, later Use non-standard measures to measure & begin to record the following: <ul style="list-style-type: none"> lengths & heights mass/weight capacity & volume 	Geometry (4) <ul style="list-style-type: none"> Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line. Draw lines and shapes using a straight edge. Identify and describe the properties of 3-D shapes, including the number of vertices and faces. Compare and sort common 2-D and 3-D shapes and everyday objects. E.g. sort 3-D shapes in different ways such as whether they have triangular faces, all straight edges... Recognise and name, polygons e.g. pentagon, hexagon, octagon and cones. Order and arrange combinations of mathematical objects in patterns, including those in different orientations e.g. a turning shape, draw the next shape in the pattern. 	Statistics (2) <ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables, understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy. Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables. Interpret data presented in many contexts. 	Geometry (2) <ul style="list-style-type: none"> Compare and classify geometric shapes, including quadrilaterals (e.g. parallelogram, rhombus, trapezium) and triangles (e.g. isosceles, equilateral, scalene), based on their properties and sizes e.g. sort quadrilaterals to find those with line symmetry or parallel edges Complete a simple symmetric figure with respect to a specific line of symmetry Identify acute and obtuse angles and compare and order angles up to two right angles by size, without using a protractor 	Geometry (4) <ul style="list-style-type: none"> Identify 3-D shapes, including cubes and other cuboids, from 2-D representations e.g. using isometric paper Draw lines accurately to the nearest millimetre and use conventional markings for parallel lines and right angles. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Use the properties of rectangles to deduce related facts and find missing lengths and angles e.g. all angles are right angles, diagonals are congruent (same length) and bisect each other (divide into two equal parts), one diagonal separates the rectangle into two congruent triangles... 	Geometry (2) <ul style="list-style-type: none"> Draw 2-D shapes using given dimensions and angles using measuring tools and conventional markings and labels for lines and angles e.g. construct a triangle or complete a parallelogram with given lengths 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 Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles describing them algebraically e.g. $a = 180 - (b + c)$

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				<ul style="list-style-type: none">• Draw given angles, and measure them in degrees (°)• Identify:<ul style="list-style-type: none">○ angles at a point and one whole turn (total 360°)○ angles at a point on a straight line and ½ a turn (total 180°)○ other multiples of 90°• <i>Use angle sum facts and other properties to make deductions about missing angles</i>• Use the properties of rectangles to deduce related facts and find missing lengths and angles <i>e.g. all angles are right angles, diagonals are congruent (same length) and bisect each other (divide into two equal parts), one diagonal separates the rectangle into two congruent triangles...</i>• <i>Use the term diagonal and make conjectures about the angles formed by diagonals and sides, and other properties of quadrilaterals, e.g. using dynamic geometry ICT tools.</i>	Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius <i>describing it algebraically as $d=2r$</i>
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				<ul style="list-style-type: none"> Distinguish between regular and irregular polygons based on reasoning about equal sides and angles <i>e.g. sort triangles and quadrilaterals into regular and irregular sets, realising that only the equilateral triangles and the squares are regular</i> 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. 	
		Geometry (2) <ul style="list-style-type: none"> Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them <i>e.g. number of faces, edges and vertices (singular: vertex), e.g. guess my shape: it has a square face and four triangular faces (square-based pyramid).</i> Recognise that angles are a property of shape or a description of turn. Identify right angles, recognise that two right angles make a half-turn, 	Statistics (2) <ul style="list-style-type: none"> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs, <i>using a greater range of scales e.g. height of a sunflower plant, measured daily for 2 weeks</i> Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs 		Measurement (2) <ul style="list-style-type: none"> 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 three decimal places Recognise that shapes with the same areas can have different perimeters and vice versa <i>e.g. investigate triangles with areas of 12cm^2 to find which has the smallest perimeter</i>

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		<p>three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.</p> <ul style="list-style-type: none"> Describe the properties of shapes using accurate language, including symmetrical/not symmetrical, lengths of lines, and acute and obtuse angles. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. 			<ul style="list-style-type: none"> Recognise when it is possible to use formulae for area and volume of shapes <i>e.g. find the length of the side of a cube with a volume of 27cm^3</i> Calculate the area of parallelograms and triangles, <i>relating it to the area of rectangles, e.g. compare the 'counting squares' method to using the formula for the area of a parallelogram</i> Solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate <i>e.g. Ben walked 850m to the bus stop, travelled on a bus for 8.67km and then a train for 120.9km; how far did he travel altogether?</i> Convert between miles and kilometres <i>and other units commonly used e.g. know that a mile is approximately 1.6km (and 1km is approximately 0.6miles) and use this to make rough calculations</i> Calculate, estimate and compare volume of cubes
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					and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3) and extending to other units, such as mm^3 and km^3 .
Term 2	Term 2	Term 2	Term 2	Term 2	Term 2
Number & Place Value (2) <ul style="list-style-type: none"> Count, read & write numbers to 100 in numerals, count in multiples of twos, fives & tens e.g. 22, 24, 26, 28, 30..., or 90, 80, 70, 60... Read & write numbers from 1 to 20 in numerals & words. Begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100 supported by objects & pictorial representations. Begin to order numbers to 100 (different tens) e.g. order 36, 29, 63, 51 Recognise odd and even numbers. 	Multiplication & Division (6) <ul style="list-style-type: none"> Begin to recall and use multiplication and division facts for the 2, and 10 multiplication tables, including recognising odd and even numbers e.g. $22 \div 2 = 11$ Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. Recognise and use the inverse relationship between multiplication and division in calculations. 	Multiplication & Division (6) <ul style="list-style-type: none"> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Develop efficient mental methods, for example, using commutativity e.g. $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240$ and multiplication and division facts to derive related facts. Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods e.g. 46×8 or $81 \div 3$ 	Number & Place Value (2) <ul style="list-style-type: none"> 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. Order and compare numbers beyond 1000. Round any number to the nearest 10, 100 or 1000. Round any number to the nearest 10 or 100. Solve number and practical problems that involve place value and rounding and with increasingly large positive numbers. 	Multiplication & Division (2) <ul style="list-style-type: none"> Continue to practise and apply multiplication tables and related division facts, committing them to memory and using them confidently to make larger calculations Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers 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 e.g. $630 \div 9$ 	Multiplication & Division (2) <ul style="list-style-type: none"> Continue to use all the multiplication tables to 12×12 in order to maintain their fluency Continue to practise the four operations for larger numbers using the formal written methods of short and long multiplication, and short and long division Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication Perform mental calculations, including with mixed operations and large numbers e.g. $(13\ 400 + 10\ 600) \times 4 \div 12 = 8000$

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	<ul style="list-style-type: none"> Relate multiplication and division to grouping and sharing discrete (e.g. counters and continuous quantities e.g. water. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts e.g. share 18 counters between 3 children. 	<ul style="list-style-type: none"> Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems (e.g. <i>change a recipe for 2 people to make enough for 6 people</i>) and correspondence problems in which n objects are connected to m objects. <i>e.g. 3 hats and 4 coats, how many different outfits? Or share 6 cakes equally between 4 children.</i> 		<ul style="list-style-type: none"> Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 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 e.g. $98 \div 4 = 24 \text{ r } 2 = 24\frac{1}{2} = 24.5 \approx 25$. 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 e.g. <i>There are 6 shelves of books; 3 shelves hold 35 books each, one shelf holds 45 books and the top two shelves have the same number of books on each; there are 200 books altogether; how many books are on the very top shelf?</i> 	<ul style="list-style-type: none"> Solve problems involving multiplication and division e.g. <i>Club A sold 3500 tickets for £9.50 each and Club B sold 8150 tickets for £3.50; how much more money did Club A make than Club B?</i> Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy Identify common factors, common multiples and prime numbers e.g. <i>Find the highest common factor of 120, 90 and 75 (15) or Find all the prime numbers between 80 and 100.</i> 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
Addition & Subtraction (4) <ul style="list-style-type: none"> Read, write and interpret mathematical statements 			Multiplication & Division (2) <ul style="list-style-type: none"> Recall multiplication and division facts for 	Fractions (2) <ul style="list-style-type: none"> Know that percentages, decimals and fractions are 	Fractions (4) <ul style="list-style-type: none"> Use common factors to simplify fractions e.g. as

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<p>involving addition (+), subtraction (-) and equals (=) signs.</p> <ul style="list-style-type: none"> Represent, <i>memorise</i>, & use number bonds and related subtraction facts within 10, in several forms, and begin to know doubles to 20 e.g. $8+8=16$, complements to 20 e.g. $8+12=20$ Solve simple one-step problems (in familiar practical contexts, including using quantities) that involve addition & subtraction, using concrete objects & pictorial representations, & missing number problems. Problems should include vocabulary such as: put together, add, altogether, total, take away, distance between, more than, less than... 			<p>multiplication tables up to 12×12</p> <ul style="list-style-type: none"> 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 e.g. $420 = 70 \times 6$; $5 \times 4 \times 9$ Recognise and use factor pairs and commutativity in mental calculations e.g. <i>factor pairs of 20 are 1 and 20, 2 and 10, 4 and 5; addition and multiplication are commutative e.g. $2 \times 6 \times 5 = 2 \times 5 \times 6 = 10 \times 6$</i> Multiply two-digit and three-digit numbers by a one-digit number using formal written layout <i>Use the formal written method for short division with exact answers when dividing by a one-digit number e.g. $456 \div 3$</i> Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit e.g. $34 \times 6 = (30 \times 6) + (4 \times 6)$, integer scaling 	<p><i>different ways of expressing proportions</i></p> <ul style="list-style-type: none"> <i>Count forwards and backwards in fractions and decimals bridging zero</i> Compare and order fractions whose denominators are all multiples of the same number e.g. <i>put these fractions in order from the smallest: $\frac{5}{12}, \frac{5}{6}, \frac{11}{12}, \frac{2}{3}$</i> Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <i>making links to decimals and measures e.g. $\frac{37}{100}$ metre = 0.37m</i> Read and write decimal numbers as fractions e.g. $0.71 = \frac{71}{100}$ <i>Mentally add and subtract:</i> <ul style="list-style-type: none"> <i>tenths e.g. $0.8 - 0.3$</i> <i>one-digit whole numbers and tenths e.g. $3.4 + 2.6$</i> <i>complements of 1 e.g. $0.85 + 0.15 = 1$</i> Recognise the per cent symbol (%) and understand that per cent relates to 	<p><i>the numerator and denominator have a common factor of 4, $\frac{12}{16}$ can be simplified to $\frac{3}{4}$; use common multiples to express fractions in the same denomination e.g. as the denominators have a common multiple of 12, $\frac{3}{4}$ and $\frac{5}{6}$ can both be expressed in twelfths i.e. $\frac{9}{12}$ and $\frac{10}{12}$ respectively</i></p> <ul style="list-style-type: none"> <i>List equivalent fractions to identify fractions with common denominators</i> Compare and order fractions, including fractions >1 e.g. <i>put these fractions in order from the smallest: $\frac{5}{4}, \frac{5}{8}, \frac{3}{2}, \frac{14}{8}$</i> Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places e.g. $205.6 \div 100 = 2.056$ Multiply one-digit numbers with up to two decimal places by whole numbers e.g. 0.6×7 Recall and use equivalences between
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			<p>problems and harder correspondence problems such as n objects are connected to m objects <i>e.g. the number of different choices on a menu</i></p>	<p>“number of parts per hundred”, and write percentages as a fraction with denominator hundred, and as a decimal fraction <i>e.g. $43\% = \frac{43}{100} = 0.43$</i></p> <ul style="list-style-type: none"> • <i>Recognise that percentages are proportions of quantities e.g. 40% of the class are boys; what percentage are girls? as well as operators on quantities e.g. find 40% of 30 children.</i> 	<p>simple fractions, decimals and percentages, including in different contexts <i>e.g. order $\frac{4}{5}$, 75%, 0.9, $\frac{19}{20}$</i></p> <ul style="list-style-type: none"> • Associate a fraction with division and calculate decimal fraction equivalents <i>e.g. 0.375 for a simple fraction e.g. $\frac{5}{8}$</i> • <i>Use understanding of relationship between unit fractions and division to work backwards by multiplying a quantity that represents a unit fraction to find the whole quantity e.g. if $\frac{1}{4}$ of a length is 36cm, then the whole length is $36 \times 4 = 144\text{cm}$</i> • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions <i>e.g. $\frac{1}{2} + \frac{1}{8} = \frac{5}{8}$</i>
			<p>Fractions (4)</p> <ul style="list-style-type: none"> • Know that decimals and fractions are different ways of expressing proportions • Recognise and show, using diagrams, families of common equivalent fractions 	<p>Measurement (2)</p> <ul style="list-style-type: none"> • Convert between different units of measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) <i>e.g. $15.7\text{cm} = 157\text{mm}$</i> 	

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			<ul style="list-style-type: none"> Count using simple fractions and decimal fractions, both forwards and backwards e.g. $4\frac{1}{3}$, $4\frac{2}{3}$, 5, $5\frac{1}{3}$, $5\frac{2}{3}$, 6, $6\frac{1}{3}$; 3.2, 3.1, 3, 2.9, 2.8, ... and represent fractions and decimals on a number line Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten e.g. $\frac{3}{10} = \frac{30}{100} = 0.30 = 0.3$ Identify, name and write equivalent fractions of a given fraction, including tenths and hundredths e.g. $\frac{6}{9} = \frac{2}{3}$ Solve problems to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number e.g. find $\frac{4}{9}$ of 18 counters Recognise and write decimal equivalents of any number of tenths or hundredths e.g. $\frac{9}{10} = 0.9$; $\frac{9}{100} = 0.09$ Recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ 	<ul style="list-style-type: none"> Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres e.g. <i>find the perimeter of an L shape where one or two side lengths are not given</i> Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling 	
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			<ul style="list-style-type: none"> Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths 		
Fractions (2) <ul style="list-style-type: none"> Recognise, find and name a half as one of two equal parts of an object, shape, length or quantity e.g. Find half of a length of string, by folding. 	Fractions (4) <ul style="list-style-type: none"> Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and one half. Count in fractions e.g. $3\frac{3}{4}$, $3\frac{2}{4}$, $3\frac{1}{4}$, 4, $4\frac{1}{4}$, ... 	Measurement (6) <ul style="list-style-type: none"> Measure, compare, add and subtract: length (m/cm/mm) mass (kg/g) e.g. <i>find 3 vegetables which weigh between 100g and 300g. Read 250g on a scale labelled every 100g. Which is heavier: 1kg 300g or $1\frac{1}{2}$kg? Know the approximate mass of a book, an apple, a baby, a man...</i> Add and subtract amounts of money to give change, using both £ and p in practical contexts e.g. <i>I have a £2 coin, two £1 coins, three 50p coins, a 20p and seven 5p coins; how much more do I need to make £10?</i> Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour digital clocks. 		Algebra (4) <ul style="list-style-type: none"> Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres e.g. <i>given the perimeter and length of a rectangle, calculate its width, w, expressing it algebraically e.g. $20 = (2 \times 7) + 2w$</i> 	Algebra (2) <ul style="list-style-type: none"> Express missing number problems algebraically e.g. <i>I'm thinking of a number; I double it and subtract 12 from the result; the answer is 60; what was my number? ($2x - 12 = 60$, so $2x = 72$, so $x = 36$)</i> Use simple formulae expressed in words e.g. <i>write a formula for the cost of a taxi journey, C, which is £2.10 plus £1.60 per kilometre, k. ($C = 2.10 + 1.60k$)</i> Enumerate all possibilities of combinations of two variables e.g. <i>list all the combinations of boys and girls in a class where there are twice as many boys as girls and between 25 & 35 children in the class altogether.</i>

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		<ul style="list-style-type: none"> Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m. morning, afternoon, noon and midnight. Compare durations of events, for example to calculate the time taken by particular events or tasks. Know the number of seconds in a minute and the number of days in each month, year and leap year. 			<ul style="list-style-type: none"> Generate and describe linear number sequences <i>e.g. 6, 13, 20, 27, ... $7n-1$</i> Find pairs of numbers that satisfy number sentences involving two unknowns. <i>e.g. $a - b = 5$, give pairs of values that a and b could have (e.g. 8, 3 or 6.5, 1.5 or ...)</i>
Measurement (2) <ul style="list-style-type: none"> Recognise & know the value of different denominations of coins. Sequence events in chronological order using language such as: 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. 			Ratio (2)		Geometry (2) <ul style="list-style-type: none"> Describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. Predict missing coordinates of quadrilaterals by using the properties of shapes, which may be expressed algebraically e.g. translating vertex (a, b) to $(a-2, b+3)$, or find the other vertices of a square, given

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<ul style="list-style-type: none"> Tell the time to the hour and draw the hands on a clock face to show these times. 					<p>two of them are (a, b) and $(a+d, b+d)$</p> <ul style="list-style-type: none"> Draw and label a pair of axes in all four quadrants with equal scaling.
Term 3	Term 3	Term 3	Term 3	Term 3	Term 3
Number & Place Value (2) <ul style="list-style-type: none"> Count to 100 forwards & backwards, beginning with 0 or 1, from any given number e.g. 103, 102, 101, 100, 99, 98... Count, read & write numbers to 100 in numerals, count in multiples of twos, fives & tens e.g. 5, 10, 15, 20, 25... 	Fractions (2) <ul style="list-style-type: none"> Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. 	Measurement <i>continued...</i>	4 operations (4) <ul style="list-style-type: none"> Use both mental and written methods with increasingly large numbers to aid fluency e.g. mentally calculate $540 + 270$ or $900 - 365$ Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Estimate and use inverse operations to check answers to a calculation Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why e.g. Mr Smith sets out on a 619 mile journey; he drives 320 miles before lunch and 185 miles after 	Number & Place Value (4) <ul style="list-style-type: none"> Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit e.g. <i>What must be added to 37 500 to change it to 67 500?</i> Count forwards or backwards in steps of powers of 10 from 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 e.g. <i>count back in threes: 8, 5, 2, -1, -4, -7...</i> Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 	Number & Place Value (1) <ul style="list-style-type: none"> Solve number and practical problems that involve number, place value and rounding e.g. <i>What is the largest 5-digit number whose digits sum to 20? (99200). What is the smallest number which rounds to 35 000, to the nearest 1000? (34 500). What is the smallest 4-digit integer whose digits sum to 20? (10199).</i>

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			<p>lunch; how much farther does he need to drive?</p> <ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 Multiply two-digit and three-digit numbers by a one-digit number using formal written layout Use the formal written method for short division with exact answers when dividing by a one-digit number e.g. $736 \div 8$ Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit e.g. $34 \times 6 = (30 \times 6) + (4 \times 6)$, integer scaling problems and harder correspondence problems such as n objects are connected to m objects e.g. 3 cakes shared equally between 10 children. 	<ul style="list-style-type: none"> Recognise and describe linear number sequences, including those involving fractions and decimals, and find the term-to-term rule e.g. find the rule and complete the sequence: __, 16, 8, 4, __, 1, 0.5, __ Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. e.g. MCMXIV (1914) 	
Addition & Subtraction (6) <ul style="list-style-type: none"> Read, write and interpret mathematical statements involving addition (+), 	4 Operations (8) <ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: 	4 Operations (4) <ul style="list-style-type: none"> Add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones 			Fractions (1) <ul style="list-style-type: none"> Use a variety of images to support understanding of

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<p>subtraction (-) and equals (=) signs.</p> <ul style="list-style-type: none">Represent, <i>memorise</i>, & use number bonds and related subtraction facts within 20, in several forms e.g. 9+7=16; 16-7=9; 7=16-9Add & subtract one-digit & 2-digit to 20 (9+9, 18-9), including zero.Solve simple one-step problems (in familiar practical contexts, including using quantities) that involve addition & subtraction, using concrete objects & pictorial representations, & missing number problems e.g. 7 = <input type="text"/> - 9Problems should include vocabulary such as: put together, add, altogether, total, take away, more than, less than...	<ul style="list-style-type: none"><ul style="list-style-type: none">a two-digit number and onesa two-digit number and tenstwo two-digit numbers e.g. 63-29adding three one-digit numbers e.g. 9 + 7 + 9Solve problems with addition and subtraction:<ul style="list-style-type: none">Using concrete objects and pictorial representations, including those involving numbers, quantities and measures.Applying their increasing knowledge of mental and written methods.Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.Relate multiplication and division to grouping and sharing discrete e.g. counters and continuous quantities e.g. water, and relating these to fractions and measures e.g. 40cm ÷ 2 = 20cm; 20cm is ½ of 40cmSolve problems involving multiplication and division, using materials, arrays,	<ul style="list-style-type: none"><ul style="list-style-type: none">a three-digit number and tens e.g. 824 – 30a three-digit number and hundredstwo-digit numbers where the answer could exceed 100 e.g. 68+47Add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.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 e.g. investigate the numbers which could go in the boxes when <div><table><tr><td><input type="text"/></td><td><input type="text"/></td><td>3</td><td>=</td><td><input type="text"/></td><td>2</td><td><input type="text"/></td><td>+</td><td><input type="text"/></td><td><input type="text"/></td><td>6</td></tr></table></div>	<input type="text"/>	<input type="text"/>	3	=	<input type="text"/>	2	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	6			<p><i>multiplication with fractions</i></p> <ul style="list-style-type: none">Multiply simple pairs of proper fractions, writing the answer in its simplest form e.g. ¼ × ½ = 1/8Divide proper fractions by whole numbers e.g. 1/3 ÷ 2 = 1/6Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places e.g. <input type="text"/> ÷ 1000 = 0.45Multiply one-digit numbers with up to two decimal places by whole numbers e.g. 0.04 x 12Use written division methods in cases where the answer has up to two decimal places e.g. 693 ÷ 15 = 14.2Multiply and divide numbers with up to two decimal places by one-digit and two-digit whole numbers e.g. 93.15 ÷ 5
<input type="text"/>	<input type="text"/>	3	=	<input type="text"/>	2	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	6						


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	<p>repeated addition, mental methods, and multiplication and division facts, including problems in contexts. <i>E.g. there are 10 pencils in a box, I have 5 boxes and 3 spare pencils, and how many do I have altogether?</i></p> <ul style="list-style-type: none"> Use the language 'sum' and 'difference' e.g. three numbers sum to 12, two numbers are 3 and 7, what is the third number? 				<ul style="list-style-type: none"> Solve problems which require answers to be rounded to specified degrees of accuracy <i>and check the reasonableness of answers.</i> Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts <i>e.g. find a decimal which lies between $\frac{3}{8}$ and $\frac{1}{2}$</i>
			<p>Fractions (2)</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator <i>e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5}$</i> 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 <i>e.g. $\frac{1}{5}$ of <input type="text"/> is 9</i> Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths Round decimals with one decimal place to the nearest 	<p>Multiplication & Division (2)</p> <ul style="list-style-type: none"> <i>Continue to practise and apply multiplication tables and related division facts, committing them to memory and using them confidently to make larger calculations</i> Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers Solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors <i>e.g. $828 \div 36 = (828 \div 4) \div 9 = 207 \div 9 = 23$</i> 	<p>Statistics (2)</p> <ul style="list-style-type: none"> Interpret and construct pie charts and line graphs and use these to solve problems <i>e.g. draw a pie chart to show how Jack spends his £36 birthday money:</i> <ul style="list-style-type: none"> £9 snacks £15 toys £12 books <i>Encounter and draw graphs relating two variables, arising from their own enquiry and in other subjects e.g. a scatter graph connecting heights of children and their long-jump distance</i> Calculate and interpret the mean as an average. <i>e.g. find the mean height of</i>

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			<p>whole number <i>e.g.</i> 32.5 rounds to 33; 49.7 rounds to 50</p> <ul style="list-style-type: none"> Compare numbers with the same number of decimal places up to two decimal places <i>e.g.</i> put in order: 2.56, 26.52, 2.65, 25.62, 2.62 Solve simple measure and money problems involving fractions and decimals to two decimal places. <i>e.g.</i> two parcels weigh 5.5kg altogether, one weighs 3.8kg, what is the mass of the other? 	<ul style="list-style-type: none"> Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers <i>e.g.</i> prime factors of 60=2×2×3×5 Establish whether a number up to 100 is prime and recall prime numbers up to 19 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 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. <i>eg a toymaker can make 8 toys in 2 hours; how many toys can he make in 5 hours?</i> 	<p><i>these children: 1.2m, 1.07m and 1.12m</i></p>
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		<p>Fractions (6)</p> <ul style="list-style-type: none"> Understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find $\frac{1}{3}$, you divide by 3; to find $\frac{1}{5}$, you divide by 5. Recognise and use fractions as numbers on the number line: unit fractions and non-unit fractions with small denominators. Recognise and show, using diagrams, equivalent fractions with small denominators.  <ul style="list-style-type: none"> Add and subtract fractions with the same denominator within one whole e.g. If $\frac{1}{3}$ of a cake is eaten then $\frac{2}{3}$ remains or $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ Compare and order unit fractions, and fractions with the same denominators e.g. put in order $\frac{1}{2}, \frac{1}{8}, \frac{1}{4}, \frac{1}{6}$ Solve problems that involve fractions e.g. Ali, Ben and Cara have 24 fish. $\frac{2}{3}$ of them belong to Ali, $\frac{1}{4}$ belong to Ben and the rest belong 	<p>Algebra (2)</p>	<p>Fractions (2)</p> <ul style="list-style-type: none"> Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <i>and extending to thousandths, making links to decimals and measures e.g. $\frac{755}{1000} \text{ kg} = 0.755 \text{ kg}$</i> Connect fractions >1 to division with remainders e.g. $\frac{5}{4} = 5 \div 4 = 1\frac{1}{4}$ Recognise mixed numbers and improper fractions and convert from one form to the other e.g. $5\frac{2}{3} = \frac{17}{3}$ and write mathematical statements >1 as a mixed number e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ Add and subtract fractions with the same denominator and multiples of the same number e.g. $\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$ Find fractions of numbers and quantities e.g. $\frac{3}{4}$ of £14 Connect multiplication by a fraction to using fractions as operators e.g. $\frac{2}{3}$ of 12 = $12 \times \frac{2}{3}$ Read and write decimal numbers as fractions 	<p>SATs</p>
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		to Cara; how many fish belong to Cara?		<ul style="list-style-type: none"> • <i>Add and subtract decimals with a different number of decimal places e.g. $102.3 + 97.82$</i> • <i>Round decimals with two decimal places to the nearest whole number and to one decimal place e.g. $27.59 = 27.6$ (1d.p.)</i> • <i>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents e.g. $\frac{650}{1000} = \frac{65}{100} = 0.65$;</i> • <i>Read, write, order and compare numbers with up to three decimal places e.g. put these decimals in order starting from the smallest: 0.457, 0.42, 0.46, 0.426</i> • <i>Solve problems and puzzles involving number up to three decimal places, checking the reasonableness of answers</i> • <i>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.e.g. $\frac{12}{20} = \frac{60}{100} = 0.6 = 60\%$</i> 	
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<p>Multiplication & Division (2)</p> <ul style="list-style-type: none"> • Double and halve numbers to 20 e.g. double 6 is 12, half of 10 is 5. • Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher e.g. share 8 sweets between 2 children. 			<p>Measurement (4)</p> <ul style="list-style-type: none"> • Convert between different units of measure (e.g. kilometre to metre; hour to minute) e.g. $4\frac{1}{2}\text{kg} = 4500\text{g}$; • Estimate, compare and calculate different measures, including money in pounds and pence e.g. put in order: £1.20, 98p, £0.89, £1.08 • Convert between different units of measure (e.g. kilometre to metre; hour to minute) e.g. 90 minutes = $1\frac{1}{2}$ hours • Read, write and convert time between analogue and digital 12 and 24-hour clocks e.g. $\frac{3}{4}$ to 8 in the evening can be written as 19:45 • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. e.g. which of these children are 3 years old: <ul style="list-style-type: none"> ○ Isabel 39 months ○ Ben 32 months ○ Cara 50 months ○ Dylan 42 months • Measure and calculate the perimeter of a rectilinear figure (including squares) in 	<p>Ratio & Scaling (2)</p> <ul style="list-style-type: none"> • Calculate the area of scale drawings using given measurements. e.g. calculate the area of a $5\text{cm} \times 3\text{cm}$ garden on a scale drawing with a scale 1cm:2m (60m^2) • Understand and use equivalences between metric and common imperial units such as inches, pounds and pints e.g. Given that an inch is approximately 2.5cm, calculate the metric equivalent of a foot (12 inches) 	<p>Multiplication & Division (2)</p> <ul style="list-style-type: none"> • Solve problems involving addition, subtraction, multiplication and division e.g. Club A sold 3500 tickets for £9.50 each and Club B sold 8150 tickets for £3.50; how much more money did Club A make than Club B? • Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy • 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 • Use their knowledge of the order of operations to carry out calculations involving the four operations and using brackets e.g. $14 \times (29 - 12) + 7 = 245$
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			<p>centimetres and metres <i>e.g. find the perimeter of an L-shape where the lengths are given or can be measured</i></p> <ul style="list-style-type: none"> Find the area of rectilinear shapes by counting squares <i>e.g. find the area of an L-shape drawn on squared paper</i> 		
<p>Fractions (2)</p> <ul style="list-style-type: none"> Recognise, find and name a half as one of two equal parts of an object, shape, length or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity <i>e.g. find $\frac{1}{4}$ of 12 beads, practically.</i> 	<p>Measurement (2)</p> <ul style="list-style-type: none"> Choose and use appropriate standard units to estimate and measure: length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, masses, volume/capacity and record the results using $>$, $<$ and $=$ Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value <i>e.g. make 73p using the fewest coins.</i> Find different combinations of coins to equal the same amounts of money. 			<p>Algebra (2)</p>	<p>Fractions (2)</p> <ul style="list-style-type: none"> Use a variety of images to support understanding of multiplication with fractions Multiply simple pairs of proper fractions, writing the answer in its simplest form <i>e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$</i> Divide proper fractions by whole numbers <i>e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$</i> Multiply one-digit numbers with up to two decimal places by whole numbers <i>e.g. 0.04×12</i> Use written division methods in cases where the answer has up to two decimal places <i>e.g. $693 \div 15 = 14.2$</i>

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	<ul style="list-style-type: none"> Solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change e.g. <i>I buy a cake for 60p and a biscuit for 25p, how much change will I get from £1?</i> 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. 				<ul style="list-style-type: none"> <i>Multiply and divide numbers with up to two decimal places by one-digit and two-digit whole numbers e.g. $93.15 \div 5$</i> Solve problems which require answers to be rounded to specified degrees of accuracy <i>and check the reasonableness of answers.</i>
Geometry (2) <ul style="list-style-type: none"> Recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> 2-D shapes (e.g. rectangles (including squares), circles and triangles) 3-D shapes (e.g. cuboids, including cubes, pyramids and spheres). Describe positions, directions & movements using language such as left & right, top, middle & bottom, around, near, close & far, up & down, forwards & backwards, inside & outside. 	Statistics (2) <ul style="list-style-type: none"> Interpret and construct simple pictograms e.g. <i>where the symbol represents 2, 5 or 10 units</i>, tally charts, block diagrams and simple tables. Answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Answer questions about totalling and comparing categorical data. 	Statistics (2) <ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables, understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy. Solve one-step and two-step questions such as ‘How many more?’ and ‘How many fewer?’ using information presented in scaled bar charts and pictograms and tables. Interpret data presented in many contexts. 	Geometry (2) <ul style="list-style-type: none"> Describe positions on a 2-D grid as coordinates in the first quadrant Plot specified points and draw sides to complete a given polygon. Describe movements between positions as translations of a given unit to the left/right and up/down 	Statistics (2) <ul style="list-style-type: none"> Complete, read and interpret information in tables, including timetables. Solve comparison, sum and difference problems using information presented in line graphs <i>Connect work on coordinates and scales to their interpretation of time graphs</i> <i>Begin to decide which representations of data are most appropriate and why</i> 	Algebra (2) <ul style="list-style-type: none"> Enumerate all possibilities of combinations of two variables e.g. <i>list all the combinations of boys and girls in a class where there are twice as many boys as girls and between 25 & 35 children in the class altogether.</i> Generate and describe linear number sequences e.g. 6, 13, 20, 27, ... $7n-1$ Find pairs of numbers that satisfy number sentences involving two unknowns. e.g. $a - b = 5$, give pairs of values that a and b could have (e.g. 8, 3 or 6.5, 1.5 or ...)

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Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Term 1	Term 1	Term 1	Term 1	Term 1	Term 1
Number & Place Value (2)	Number & Place Value (4)	Number & Place Value (4)	Number & Place Value (2)	Number & Place Value (2)	Number & Place Value (2)
Addition & Subtraction (8)			Addition & Subtraction (4)	Addition & Subtraction (2)	Addition & Subtraction (4)
	Addition & Subtraction (6)	Addition & Subtraction (6)		Multiplication & Division (2)	
			Multiplication & Division (4)	Ratio (4)	Ratio & Scaling (2)
					Algebra (2)
Measurement (4)	Geometry (4)	Statistics (2)	Geometry (2)	Geometry (4)	Geometry (2)
		Geometry (2)	Statistics (2)		Measurement (2)
Term 2	Term 2	Term 2	Term 2	Term 2	Term 2
Number & Place Value (2)	Multiplication & Division (6)	Multiplication & Division (6)	Number & Place Value (2)	Multiplication & Division (2)	Multiplication & Division (2)
Addition & Subtraction (4)			Multiplication & Division (2)	Fractions (2)	Fractions (4)
			Fractions (4)	Measurement (2)	
Fractions (2)	Fractions (6)	Measurement (6)		Algebra (4)	Algebra (2)
Measurement (2)			Ratio (2)		Geometry (2)
Term 3	Term 3	Term 3	Term 3	Term 3	Term 3
Number & Place Value (2)	Fractions <i>cont...</i>	Measurement <i>cont...</i>	4 Operations (4)	Number & Place Value (4)	Number & Place Value (1)
Addition & Subtraction (6)	4 Operations (8)	4 Operations (4)			Fractions (1)
			Fractions (2)	Multiplication & Division (2)	Statistics (2)
		Fractions (6)	Algebra (2)	Fractions (2)	SATs

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Multiplication & Division (2)			Measurement (4)	Ratio & Scaling (2)	Multiplication & Division (2)
Fractions (2)	Measurement (2)			Algebra (2)	Fractions (2)
Geometry (2)	Statistics (2)	Statistics (2)	Geometry (2)	Statistics (2)	Algebra (2)