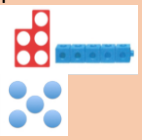
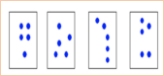



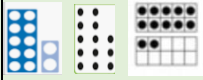


Number Facts Progression Through KS1 linking ELG, Y2 Standards, Ready to progress targets and national curriculum

<p>(P Scale 6) (Below 40 months)</p>	<p>Demonstrate an understanding of the concept of transaction (e.g. by exchanging a coin for an item, or one item for another, during a role-play activity).</p>	<p>Distinguish between 'one' and 'lots', when shown an example of a single object and a group of objects.</p>	<p>Demonstrate an understanding of the concept of 1:1 correspondence (e.g. giving one cup to each pupil).</p>						
<p>(P Scale 6/7) (within 40-60 months)</p>	<p>Say the number names to 5 in the correct order (e.g. in a song or by joining in with the teacher).</p>	<p>Demonstrate an understanding of the concept of numbers up to 5 by putting together the right number of objects when asked.</p>	<p>Sort objects according to a stated characteristic (e.g. group all the small balls together, sort the shapes into triangles and circles).</p>	<p>Identify the big or small object from a selection of two.</p>	<p>Copies simple patterns of physical sequences.</p>				
<p>(P scale 8) (within 40-60 months)</p>	<p>Counts accurately to 10.</p>	<p>Rote counts to 20.</p>	<p>Subitising with numbers to 10 with regular patterns. </p>	<p>Subitising with numbers to 10 with irregular patterns. </p>	<p>Subitising with numbers to 10 with everyday objects. </p>	<p>Use objects to fine one more or one less and indicate how many.</p>	<p>Demonstrate an understanding that the last number counted represents the total number of the count.</p>	<p>Copy and continue more advanced patterns using real-life materials (e.g. apple, apple, orange, apple, orange, etc.).</p>	

(working within EYFS ELG)	read and write numbers in numerals from 0 to 9.	Demonstrate an understanding of the mathematical symbols of add, subtract and equal to.	Using quantities and objects, adds and subtracts two single-digit numbers and counts on or back to find the answer to 10.	Separates up to 5 objects in different ways. Know number bonds for numbers up to 5 by rote.	Demonstrate an understanding of the commutative law E.g. if $3 + 2 = 5$ then $2 + 3 = 5$.	Demonstrate an understanding of inverse relationships involving addition and subtraction.	Demonstrate an understanding that the total number of objects changes when objects are added or taken away.	Demonstrate an understanding that the number of objects remains the same when they are rearranged, providing nothing has been added or taken away.	
EYFS ELG Number K9	Counts accurately to 20.	Orders numbers to 20.	Match numerals and quantities.	Conceptual subitising within 10. 	Can build addition and subtraction facts to 10 with concrete objects. 	Give one more or one less than a given number to 20.	I can add and subtract 2 numbers and count on or back to find the answer. (using quantities and objects).	Can understand doubling, halving and sharing.	
ELG Shape space and measures K9	I can use language to talk about size, weight, capacity, position, distance, time and money.	I can compare size, weight, capacity, position, distance, time and money to solve problems.	I can recognize, create and describe patterns.	I can recognize and describe 2D and 3D shapes.					
Year 1 Ready to progress guidance	Counts within 100 forwards and backwards from any number. Includes use of number line.	Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$	Conceptual subitising of teen numbers and secure language for numbers 11 to 20. 	Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	Read, write and interpret equations containing $+$ $-$ and $=$ relate additive expressions and equations to real-life contexts.	Develop fluency in addition and subtraction facts within 10 Secure fluency in number bonds to 10.	Develop fluency in counting in multiples of 2 5 and 10 forwards and backwards.	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.

Rest of Year 1 Curriculum	Given a number, identify one more and one less to 100.	Read and write numbers from 1 to 20 in numerals and words.	Represent and use number bonds and related subtraction facts within 20.	Add and subtract one-digit and two-digit numbers to 20, including zero.	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$.	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.	Recognise, find and name a half as one of two equal parts of an object, shape or quantity.	Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
	Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half].	Compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than].	Compare, describe and solve practical problems for: capacity and volume [for example, full/empty, more than, less than, half, half full, quarter].	Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later].	Measure and begin to record the following: <ul style="list-style-type: none"> lengths and heights. capacity and volume . mass/weight time (hours, minutes, seconds). 	Recognise and know the value of different denominations of coins and notes.	Sequence events in chronological order using language [for example, 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.	Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
Year 2 Ready to progress guidance	Recognise the place value of each digit in two-digit numbers, compose and decompose two-digit numbers using standard and nonstandard partitioning.	Reason about the location of any two-digit 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 two-digit number.	Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit 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).

Rest of Y2 curriculum	Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.	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 and in words.	use place value and number facts to solve problems.	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.	adding three one-digit numbers.
	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 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 (\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.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	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 for example, $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
	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,	Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$	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.	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.	Know the number of minutes in an hour and the number of hours in a day.	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.

	thermometers and measuring vessels.								
	Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.	Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid].	Compare and sort common 2-D and 3-D shapes and everyday objects.	Order and arrange combinations of mathematical objects in patterns and sequences.	Order and arrange combinations of mathematical objects in patterns and sequences.	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.	
Year 3 Ready to progress guidance	Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.	Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.	Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	Secure fluency in addition and subtraction facts that bridge 10, through continued practice.	Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).	Calculate complements to 100. (Number bonds)	Add and subtract up to three-digit numbers using columnar methods.

	<p>Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.</p>	<p>Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.</p>	<p>Interpret and write proper fractions to represent 1 or several parts of a whole that is</p>	<p>Find unit fractions of quantities using known division facts (multiplication tables fluency).</p>	<p>Reason about the location of any fraction within 1 in the linear number system.</p>	<p>Add and subtract fractions with the same denominator, within 1.</p>	<p>Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.</p>	<p>Draw polygons by joining marked points, and identify parallel and perpendicular sides.</p>	
<p>Rest of the Y3 curriculum</p>	<p>Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</p>	<p>Compare and order numbers up to 1000</p>	<p>Identify, represent and estimate numbers using different representations</p>	<p>Read and write numbers up to 1000 in numerals and in words</p>	<p>Solve number problems and practical problems involving these ideas.</p>	<p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> • a three-digit number and ones • a three-digit number and tens • a three-digit number and hundreds 	<p>Estimate the answer to a calculation and use inverse operations to check answers</p>	<p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p>	<p>Positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p>

	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 and show, using diagrams, equivalent fractions with small denominators	Compare and order unit fractions, and fractions with the same denominators	Solve problems involving fractions encountered in Y3	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	Measure the perimeter of simple 2-D shapes	Add and subtract amounts of money to give change, using both £ and p in practical contexts	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks	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, a.m./p.m., morning, afternoon, noon and midnight
	Know the number of seconds in a minute and the number of days in each month, year and leap year	Compare durations of events [for example to calculate the time taken by particular events or tasks].	Interpret and present data using bar charts, pictograms and tables	Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.					
Year 4 Ready to progress guidance	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	Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and	Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of	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 12x12 and recognise products in multiplication tables as multiples of the	Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) including: multiplying by 0 and 1; dividing by	Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number	Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.

	there are in other four-digit multiples of 100.	nonstandard partitioning.	1,000 and 100, and rounding to the nearest of each.		corresponding number.	according to the context.	1; multiplying together three numbers	10 or 100 times the size.	
	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. triangles (for example, isosceles, equilateral, scalene) and quadrilaterals (for example, parallelogram, rhombus, trapezium)	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.	
Rest of the Y4 curriculum	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	Identify, represent and estimate numbers using different representations	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.	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.	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	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	Recognise and write decimal equivalents of any number of tenths or hundredths	Recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{3}{4}$	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 ones, tenths and hundredths
	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	Solve simple measure and money problems involving fractions and decimals to two decimal places.	Convert between different units of measure [for example, kilometre to metre; hour to minute]	Find the area of rectilinear shapes by counting squares	Estimate, compare and calculate different measures, including money in pounds and pence	Read, write and convert time between analogue and digital 12- and 24-hour clocks	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Pupils compare and order angles in preparation for using a protractor and compare lengths and angles to decide if a polygon is regular or irregular.
	Describe movements between positions as translations of a given unit to the left/right and up/down.	Interpret and present discrete data using appropriate graphical methods, including bar charts and time graphs.	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.						

Year 5 Ready to progress guidance	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 decimal 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, squares and cubes
	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 $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$, and for multiples of these proper fractions.	Compare angles (compare acute, obtuse and reflex angles). Estimate and measure angles in degrees ($^{\circ}$) and draw angles of a given size.	Compare areas and calculate the area of rectangles (including squares) using standard units.		
Rest of the Y5 curriculum	Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers,	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 involving numbers to 1 000 000, negative numbers and rounding.	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	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

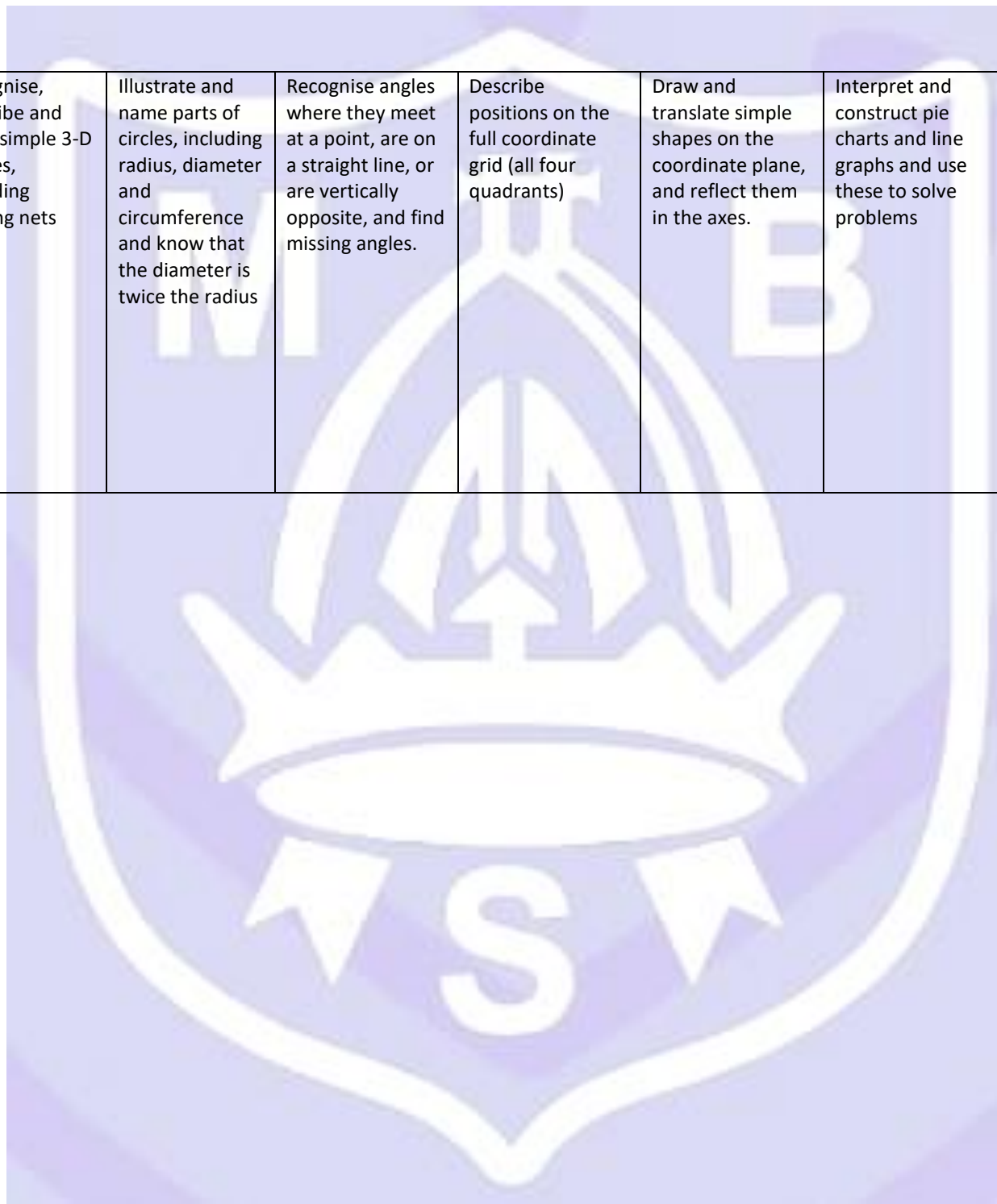
			including through zero						
	Solve addition and subtraction multi-step pr	Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Compare and order fractions whose denominators are all multiples of the same number	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$]	Add and subtract fractions with the same denominator and denominators that are multiples of the same number	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]
	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Round decimals with two decimal places to the nearest whole number and to one decimal place	Read, write, order and compare numbers with up to three decimal places	Solve problems involving number up to three decimal places	Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal	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.	Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
	Estimate the area of irregular shapes	Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and	Solve problems involving converting between units of time	Use all four operations to solve problems involving measure [for example, length, mass, volume, money]	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. Distinguish between regular	Identify: Angles at a point and one whole turn (total 360°), angles at a point on a straight line and $2 \frac{1}{2}$ a turn (total 180°)	Use the properties of rectangles to deduce related facts and find missing length.	Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate	Pupils recognise and use reflection and translation in a variety of diagrams, including

		capacity [for example, using water]		using decimal notation, including scaling.	and irregular polygons based on reasoning about equal sides and angles	o) and other multiples of 90o		language, and know that the shape has not changed.	continuing to use a 2-D grid and coordinates in the first quadrant. Reflection should be in lines that are parallel to the axes.
	Solve comparison, sum and difference problems using information presented in a line graph	Complete, read and interpret information in tables, including timetables.							
Year 6 Ready to progress guidance	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.	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 denominator 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 denominator as a comparison strategy.	Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems. (includes area of parallelograms and triangles) (angles in any triangles, quadrilaterals, and regular polygons)						
	Use negative numbers in context, and calculate intervals across zero	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	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	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 [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]	Divide proper fractions by whole numbers [for example, $3 \frac{1}{2} \div 2 = 6 \frac{1}{4}$]

			appropriate for the context						
	Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{8}{3}$]	Identify the value of each digit in numbers given to three decimal places and multiply numbers by 10, 100 and 1000 giving answers up to three decimal places	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	Solve problems which require answers to be rounded to specified degrees of accuracy	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts	Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison	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.	Use simple formulae	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.	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

	<p>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 [for example, mm³ and km³].</p>	<p>Recognise, describe and build simple 3-D shapes, including making nets</p>	<p>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</p>	<p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p>	<p>Describe positions on the full coordinate grid (all four quadrants)</p>	<p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p>	<p>Interpret and construct pie charts and line graphs and use these to solve problems</p>	<p>Calculate and interpret the mean as an average.</p>	
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EYFS curriculum goals

Birth to 11 m

Mathematics

Numbers

- | | | |
|---|--|--|
| 1 | Notices changes in number of objects/images or sounds in a group of up to 3. | |
|---|--|--|

Shape, Space and Measure

Babies' early awareness of shape, space and measure grows from their sensory awareness and opportunities to observe objects and their movements, and to play and explore.

See Characteristics of Effective Learning - Playing and Exploring, and Physical Development.

8 to 20 m

Mathematics

Numbers

- | | | |
|---|--|--|
| 2 | Develops an awareness of number names through their enjoyment of action rhymes and songs that relate to their experience of numbers. | |
| 3 | Has some understanding that things exist, even when out of sight. | |

Shape, Space & Measure

- | | | |
|---|---|--|
| 1 | Recognises big things and small things in meaningful contexts. | |
| 2 | Gets to know and enjoy daily routines, such as getting-up time, mealtimes, nappy time, and bedtime. | |

16 to 26 m

Mathematics

Numbers

- | | | |
|---|--|--|
| 4 | Knows that things exist, even when out of sight. | |
| 5 | Beginning to organise and categorise objects, e.g. putting all the teddy bears together or teddies and cars in separate piles. | |
| 6 | Says some counting words randomly. | |

Shape, Space & Measure

- | | | |
|---|--|--|
| 3 | Attempts, sometimes successfully, to fit shapes into spaces on inset boards or jigsaw puzzles. | |
| 4 | Uses blocks to create their own simple structures and arrangements. | |
| 5 | Enjoys filling and emptying containers. | |
| 6 | Associates a sequence of actions with daily routines. | |
| 7 | Beginning to understand that things might happen 'now'. | |

22 to 36 m

Mathematics

Numbers

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| 7 | Selects a small number of objects from a group when asked, for example 'please give me one', 'please give me two'. | |
| 8 | Recites some number names in sequence. | |
| 9 | Creates and experiments with symbols and marks representing ideas of number. | |
| 10 | Begins to make comparisons between quantities. | |
| 11 | Uses some language of quantities, such as 'more' and 'a lot'. | |
| 12 | Knows that a group of things changes in quantity when something is added or taken away. | |

Shape, Space & Measure

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| 8 | Notices simple shapes and patterns in pictures. | |
| 9 | Beginning to categorise objects according to properties, such as shape or size. | |
| 10 | Begins to use the language of size. | |
| 11 | Understands some talk about immediate past and future, e.g. 'before', 'later' or 'soon'. | |
| 12 | Anticipates specific time-based events, such as mealtimes or home time. | |

30 to 50m

Numbers

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| 13 | Uses some number names and number language spontaneously. | |
| 14 | Uses some number names accurately in play. | |
| 15 | Recites numbers in order to 10. | |
| 16 | Knows that numbers identify how many objects are in a set. | |
| 17 | Beginning to represent numbers using fingers, marks on paper or pictures. | |
| 18 | Sometimes matches numeral and quantity correctly. | |
| 19 | Shows curiosity about numbers by offering comments or asking questions. | |
| 20 | Compares two groups of objects, saying when they have the same number. | |
| 21 | Shows an interest in number problems. | |
| 22 | Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. | |
| 23 | Shows an interest in numerals in the environment. | |
| 24 | Shows an interest in representing numbers. | |
| 25 | Realises not only objects, but anything can be counted, including steps, claps or jumps. | |

Shape, Space & Measure

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| 13 | Shows an interest in shape and space by playing with shapes or making arrangements with objects. | |
| 14 | Shows awareness of similarities of shapes in the environment. | |
| 15 | Uses positional language. | |
| 16 | Shows interest in shape by sustained construction activity or by talking about shapes or arrangements. | |
| 17 | Shows interest in shapes in the environment. | |
| 18 | Uses shapes appropriately for tasks. | |
| 19 | Beginning to talk about the shapes of everyday objects, e.g. 'round' and 'tall'. | |

40 to 60 m

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| 26 | Recognise some numerals of personal significance. | |
| 27 | Recognises numerals 1 to 5. | |
| 28 | Counts up to three or four objects by saying one number name for each item. | |
| 29 | Counts actions or objects which cannot be moved. | |
| 30 | Counts objects to 10, and beginning to count beyond 10. | |
| 31 | Counts out up to six objects from a larger group. | |
| 32 | Selects the correct numeral to represent 1 to 5, then 1 to 10 objects. | |
| 33 | Counts an irregular arrangement of up to ten objects. | |
| 34 | Estimates how many objects they can see and checks by counting them. | |
| 35 | Uses the language of 'more' and 'fewer' to compare two sets of objects. | |
| 36 | Finds the total number of items in two groups by counting all of them. | |
| 37 | Says the number that is one more than a given number. | |
| 38 | Finds one more or one less from a group of up to five objects, then ten objects. | |
| 39 | In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting. | |
| 40 | Records, using marks that they can interpret and explain. | |
| 41 | Begins to identify own mathematical problems based on own interests and fascinations. | |

Shape, Space & Measure

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| 20 | Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. | |
| 21 | Selects a particular named shape. | |
| 22 | Can describe their relative position, such as 'behind' or 'next to'. | |
| 23 | Orders two or three items by length or height. | |
| 24 | Orders two items by weight or capacity. | |
| 25 | Uses familiar objects and common shapes to create and recreate patterns and build models. | |
| 26 | Uses everyday language related to time. | |
| 27 | Beginning to use everyday language related to money. | |
| 28 | Orders and sequences familiar events. | |
| 29 | Measures short periods of time in simple ways. | |