Skills Progression Maths Reception -Year 6

	Key Stage 1		Lower Key Stage 2		Upper Key Stage 2	
	Year 1	**Year 2**	**Y3**	**Y4**	**Y5**	**Y6**
Autumn 1						
Declarative (Knowing what)	Read and write numbers from 1 to 10 in numerals and words. Represent and use number bonds and related subtraction facts within 10 Develop fluency in addition and subtraction facts within 10.	Read and write numbers to at least 100 in numerals and in words. Identify numbers using different representations, including the number line. Recognise the place value of each digit in a two-digit number Count in steps of 10 from any number, forward and backward Secure fluency in addition and subtraction facts within 10. Secure fluency in addition and subtraction facts that bridge 10, through continued practice. Recall (to 10) and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.	Read and write numbers to at least 1000 in numerals and in words. Identify numbers using different representations. Recognise the value of each digit in a 3-digit number. Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of10; apply this to work out how many 10s there are in other 3-digit multiples of 10. Calculate complements to 100. Understand and use the commutative property of addition and understand the related property for subtraction.	Read and write numbers to at least 10000 in numerals and in words. Identify numbers using different representations. Recognise the place value of each digit in numbers up to 4 digits Count in multiples of 6,7,9,25 and 1000 Know that 10 hundreds are equivalent to 1 thousand, and that 1000 is 10 times the size of 100; apply this identify and work out how many hundreds there are in other 4-digit multiples of 100 Count backwards through zero to include negative numbers recall number facts and fluency for addition and subtraction facts with in 10/ 100 and related facts within larger numbers	Read and write numbers up to 1 000 000 in numerals and words and determine the value of each digit. Recognise the place value of each digit in numbers up to 5 digits. Identify and represent numbers using different representations. Find 10 or 100 or 1000 more or less than a given number. Know that 10 hundreds are equivalent to 1 thousand, and that 1000 is 10 times the size of 100; apply this identify and work out how many hundreds there are in other 4-digit multiples of 100. (Extend to 5 digit numbers) Count backwards through zero to include negative numbers Round any whole number to a required degree of accuracy. 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 recall number facts and fluency for addition and subtraction facts with in 10/ 100 and related facts within larger numbers Secure multiplication and division facts for multiplication tables up to 12 × 12 and recognise products in multiplication tables as	Read and write numbers up to 10 000 000 in numerals and words and determine the value of each digit. Recognise the place value of each digit in numbers up to 10 000 000 Identify and represent numbers using different representations. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 Find 10 or 100 or 1000 more or less than a given number. Know that 10 hundreds are equivalent to 1 thousand, and that 1000 is 10 times the size of 100; apply this identify and work out how many hundreds there are in other 4-digit multiples of 100.Understand the relationship between the powers of 10 from 1 to 10 million, and use this to make a given number 10, 100, 1000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply by 10, 100 and 1000). Count forwards and backwards with positive and negative whole numbers including through zero Round any whole number to a required degree of accuracy. Read Roman numerals to 100 (1000 (M) and know that over time, the numeral system changed to include the concept of zero and place value and recognise years written as numerals. recalling number facts and fluency for addition and subtraction facts with in

					multiples of the corresponding number Recognise and use square and cube numbers and the notation for squared (2) and cubed (3). Know and use the vocabulary for multiples, factors, prime numbers, prime factors and composite (non-prime) 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 whole numbers by 10 and 100 and 1000.	10/ 100 and related facts within larger numbers Sustain multiplication and division facts for multiplication tables up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number Identify common factors, common multiples and prime numbers.
Procedural (Knowing how)	Identify and represent numbers using objects and pictorial representations including the number line. Use the language of: equal to, more than, less than, most, least Add and subtract one-digit and two-digit numbers to 10, including zero. Read, write, and interpret mathematical statements involving addition, subtraction and equals signs. Compose numbers to 10 from 2-parts, and	Order and compare numbers from 0 up to 100; use < > and = signs. Represent and estimate numbers using different representations, including the number line. Compose and decompose 2-digit numbers using standard and non-standard partitioning. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit	Order and compare numbers from 0 up to 1000.; use < > and = signs. Represent and estimate numbers using different representations, including the number line. Compose and decompose 3-digit numbers using standard and non-standard partitioning. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: three-digit number and ones; a	Order and compare numbers from 0 up to 1000.; use < > and = signs. Represent and estimate numbers using different representations, including the number line. Compose and decompose 4- digit numbers Round any number to the nearest 10, 100 or 1000 / Add and subtract whole numbers with up to 4 digits using the formal written methods of columnar addition and	Order and compare numbers up to and beyond 1000 Represent and estimate numbers using different representations Compose and decompose 5- digit numbers using standard and non-standard partitioning. Round any number to 1 000 000 to the nearest 10/ 100/ 1000/ 10 000/ 1000 000 Add and subtract whole numbers with more than 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Order and compare numbers up to and beyond 10 000 000 Represent and estimate numbers using different representations Compose and decompose numbers up to10 000 000 using standard and non-standard partitioning. Round any number to 1 000 000 to the nearest 10/ 100/ 1000/ 10 000/ 1000 000 Use negative numbers in context and calculate intervals across zero.

	partition numbers to 10 into parts.	numbers; adding three one-digit numbers. Add and subtract across 10. Add and subtract within 100 by applying related 1-digit facts. Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?"	three-digit number and tens; two three-digit numbers; a three-digit number and hundreds. Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.	subtraction where appropriate.	Add and subtract numbers mentally with increasingly large numbers Multiply and divide whole numbers and those involving decimals by 10, 100, 1000 Multiply and divide numbers mentally drawing upon known facts Multiply numbers up to 4 digits by a one or using a formal written method, 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 Use factor pairs in mental calculations. Find factors and multiples of positive whole numbers,	Add and subtract whole numbers with up to 6 digits using the formal written methods of columnar addition and subtraction where appropriate. Perform mental calculations including with mixed operations and large numbers Multiply and divide numbers mentally drawing upon known facts including with mixed operations and large numbers. Multiply multi digits by a one or two-digit number using a formal written method, including long multiplication for two- digit numbers Divide numbers up to 4 digits by a one-digit/ two-digit whole number using the formal written method of short / long division and interpret remainders appropriately for the context Find common factors and multiples. Give all the factor pairs of a number.
Conditional (Knowing why)	Reason about the location of numbers to 10 within the linear number system, including comparing using < > and =. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations. Solve missing number problems such as 7 = * - 9	Reason about the location of any 2-digit number in the linear number system, including identifying the previous and next multiple of 10. Use place value and number facts to solve problems. Solve problems with addition and subtraction using concrete objects	Reason about the location of any 2-digit/3-digit number in the linear number system, including identifying the previous and next multiple of 10 and 100. Solve number problems and practical problems	Reason about the location of any 4 digit number in the linear number system, including identifying the previous and next multiple of 100 and 10/1000 and rounding to the nearest of each Solve number problems and practical problems involving the decorative and procedural knowledge above with	Reason about the location of any number with up to 1,000,000 in the linear number system. Solve number problems and practical problems involving the declarative and procedural knowledge above with increasingly large positive numbers Interpret negative numbers in context.	Reason about the location of any number with up 10,000,000 decimal places in the linear number system Solve number problems and practical problems involving the declarative and procedural knowledge above with increasingly large positive numbers Interpret negative numbers in context. Solve addition and subtraction multi step problems in context deciding

	Relate additive expressions and equations to real-life contexts.	and pictorial representations, including those involving numbers, quantities and measures. Apply their increasing knowledge of mental and written methods 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.	involving the declarative and procedural knowledge above. Solve problems with addition and subtraction. Apply their increasing knowledge of mental and written methods. 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.	increasingly large positive numbers Solve addition and subtraction multi step problems in context deciding which operations and methods to use and why	Solve addition and subtraction multi step problems in context deciding which operations and methods to use and why Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Estimate and use inverse operations to check answers to a calculation. Interpret remainders appropriately according to the context. Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit Use rounding to check answers to calculations and determine in the context of a problem, levels of accuracy Estimate and use inverse operations to check answers to a calculation. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	which operations and methods to use and why Use rounding/estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy Estimate and use inverse operations to check answers to a calculation. Interpret remainders appropriately according to the context. Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit Use rounding/ estimation to check answers to calculations and determine in the context of a problem, levels of accuracy Estimate and use inverse operations to check answers to a calculation. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.

Skills Progression Maths Reception -Year 6

Autumn 2						
Declarative	Recognise common 2-D shapes: rectangles including squares, circles and triangles presented in different orientations. Recognise common 3-D shapes: cuboids (including cubes, pyramids and spheres presented in different orientations. Know that the above shapes are not always similar to each other. Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.	Identify and describe the properties of 2-D shapes using precise language, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3-D shapes using precise language, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes	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. 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. ***Odd and even numbers***	Recall multiplication and division facts for multiplication tables up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number ***Odd and even numbers*** Divide 1000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1000 with 2, 4, 5 and 10 equal parts. Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size Recognise factor pairs.	Recognise mixed numbers and improper fractions and write mathematical statements > 1 as a mixed number. Identify, name and write equivalent fractions of a given fraction, including tenths and hundredths, and understand they have the same position in the linear number system. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) including using common decimals and fractions.	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 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. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
Procedural	Compose 2-D and 3_d shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. Make whole, half, quarter and three-quarter turns in both directions.	Compare and sort common 2-D and 3-D shapes and everyday objects.	Choose and use appropriate standard units to estimate and measure, compare, add and subtract length/height in any direction (m/cm/mm) using rulers. Compare and order lengths and record the results using >, < and = Measure the perimeter of simple 2-D shapes.	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. Solve division problems, with 2-digit dividends and 1-digit divisors that involve remainders.	Find non-unit fractions of quantities. Show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator and denominators that are multiples of the same number Convert mixed numbers to improper fractions and vice versa.	Compare and order fractions, including fractions > 1. Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.

			Find the area of simple shapes	Use factor pairs in mental calculations. Find factors and multiples of positive whole numbers, .	Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Estimate, compare and calculate different measures, including money in pounds and pence. ***ACP: Low stakes quiz.*** Convert between different units of measure (for example, kilometre to metre; hour to minutes).	Multiply simple pairs of proper fractions, writing the answer in its simplest form. Divide proper fractions by whole numbers. Estimate, compare and calculate different measures, including money in pounds and pence. ***ACP: Low stakes quiz.*** Convert between different units of measure (for example, kilometre to metre; hour to minutes/ miles and kilometres).
Conditional	Connect turning clockwise with movement on a clock face.	Compare 2-d and 3-D shapes by reasoning about similarities and differences in properties. Order and arrange combinations of mathematical objects in patterns and sequences.	Use procedural knowledge to solve problems involving measures/perimeter and area.	Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit. Apply place-value knowledge to known additive and multiplicative number facts (scaling by 100). Manipulate multiplication and division equations and understand and apply	Solve problems that require conversion from mixed numbers and improper fractions Solve simple measure and money problems involving fractions and decimals to two decimal places. Reason about the location of mixed numbers in the linear number system. Solve problems involving converting between units of time. Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	Solve problems that require conversion from mixed numbers and improper fractions Solve simple measure and money problems involving fractions and decimals to two decimal places. Reason about the location of mixed numbers in the linear number system. Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.

				the commutative property of multiplication. Estimate and use inverse operations to check answers to a calculation. Solve problems involving multiplication and division including using their knowledge of factors and multiples,		
Spring 1						
Declarative	Read and write numbers to at least 20 in numerals. Represent and use number bonds and related subtraction facts within 20. Develop fluency in addition and subtraction facts within 20. Represent and use number bonds and related subtraction facts within 20. Develop fluency in addition and subtraction facts within 20.	Recognise and use symbols for pounds (£) and pence (p). Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 3, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. 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. Recognise, find, name and write fractions 1/3, 1/4 ,2/4 and 3/4 of a length, shape, set of objects or quantity. Recognise fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	Recall multiplication and division facts for multiplication tables up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number Use known facts to multiply 3 numbers together. Divide 1000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1000 with 2, 4, 5 and 10 equal parts. Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a	Secure fluency in multiplication table facts and corresponding division facts, through continued practise Multiply and divide whole numbers by 10 and 100 and 1000 (keeping to whole number quotients); understand this as equivalent to making a number 10, 100 or 1000 times the size. or 1 tenth or 1 hundredth or 1 thousandth times the size. 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. Recognise, write and recall decimal equivalents to 1/4, 1/2, ¾, 1/5, and 1/10, and for multiples of these unit fractions.	Calculate scale factors of similar shapes using known x and division facts. Identify the value of each digit in numbers given to three decimal places. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

			Recognise the equivalence of 2/4 and 1/2. Recognise and show, using diagrams, equivalent fractions with small denominators.	number 10 or 100 times the size Recognise faxtor pairs Recognise, and write decimal equivalents to 1/4, 1/2, ¾, Identify, name and write decimal equivalents of any number of tenths or hundredths	Identify, name and write decimal equivalents of any number of tenths or hundredths and understand they have the same position in the linear number system Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Read and write decimal numbers with up to three decimal places. as fractions. ***ACP: Fluent in 5.*** Recognise the percent 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.	
Procedural	Add and subtract one-digit and two-digit numbers to 20, including zero. Read, write and interpret mathematical statements involving addition, subtraction and equals signs. Compose numbers to 20 from 2-parts, and partition numbers to 20 into parts.	Combine amounts of money to make a particular value. Find different combinations of coins that equal the same amounts of money Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. Choose and use appropriate standard units to estimate and measure, compare, add and subtract length/height in any direction (m/cm/mm) using rulers.	Use factor pairs to calculate Use the formal written methos to multiply 2 and 3 digit number by a single digit number. Measure and calculate the perimeter of rectilinear figures (including squares) in centimetres and metres. Find the perimeter of regular and irregular polygons. Find the area of rectilinear shapes by counting squares.	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. Compare and order numbers with the same number of decimal places up to two/ three decimal places. Round decimals with one/two decimal places to the nearest whole number and to one decimal place.	Calculate scale factors of similar shapes. Multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places. Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]. Use written division methods in cases where the answer has up to two decimal places. Use simple formulae. Generate and describe linear number sequences.

			Compare and order lengths and record the results using >, < and = Measure the perimeter of simple 2-D shapes. Find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators.	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		Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.
Conditional	Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations. Solve missing number problems such as 17 = * - 3	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division). Show that multiplication of two numbers can be done in any order	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. *Give the children multiplication and division problems. Ask them to solve them using as many of the above ways as possible.* Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division). *eg. Children represent the same problem as missing factor multiplication problem.*	Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit. Apply place-value knowledge to known additive and multiplicative number facts (scaling by 100). Manipulate multiplication and division equations and understand and apply the commutative property of multiplication.	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. Solve simple measure and money problems involving fractions and decimals to two/ three decimal places. ***ACP: Low stakes quiz.*** 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.	Calculate scale factors of similar shapes. 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 similar shapes where the scale factor is known or can be found. Solve problems which require answers to be rounded to specified degrees of accuracy.

		(commutative) and division of one number by another cannot		Estimate and use inverse operations to check answers to a calculation. Solve problems involving multiplication and division including using their knowledge of factors and multiples, Solve simple measure and money problems involving fractions and decimals to two decimal places.		
Spring 2						
Declarative	Read and write numbers to at least 50 in numerals. Represent and use number bonds and related subtraction facts within 20. Develop fluency in addition and subtraction facts within 10.	Read and write numbers to at least 100 in numerals and in words. Identify numbers using different representations, including the number line. Recognise the place value of each digit in a two-digit number Count in steps of 10 from any number, forward and backward		Read and write decimal numbers. as fractions.(2dp)		Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes.
Procedural	Add and subtract one-digit and two-digit numbers to 50, including zero.	Order and compare numbers from 0 up to 100; use < > and = signs. Represent and estimate numbers using different	Choose and use appropriate standard units to estimate and measure, compare, add and subtract mass (kg/g);	Compare numbers with the same number of decimal	Measure and calculate the perimeter of rectilinear figures (including squares) / composite	Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using

	Read, write and interpret mathematical statements involving addition, subtraction and equals signs. Compose numbers to 50 from 2-parts, and partition numbers to 50 into parts. Measure and record: lengths/heights, mass/weight, capacity volume, time.	representations, including the number line. Compose and decompose 2-digit numbers using standard and non-standard partitioning. Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels Compare and order lengths, mass, volume/capacity and record the results using >, < and =	volume, temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using scales, thermometers and measuring vessels. Compare and order mass, volume/capacity and record the results using >, < and =	places up to two decimal places.	rectilinear shapes in centimetres and metres. Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes. Complete, read and interpret information in tables, including timetables.	standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3]. Interpret and construct pie charts and line graphs. Calculate and interpret the mean as an average.
Conditional	Reason about the location of numbers to 50 within the linear number system, including comparing using < > and =. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations. Solve missing number problems such as 47 = * - 3 Compare, describe and solve practical problems for: lengths/heights, Compare, describe and solve practical problems	Reason about the location of any 2-digit number in the linear number system, including identifying the previous and next multiple of 10. Use place value and number facts to solve problems.		Solve simple measure and money problems involving fractions and decimals to tw0 decimal places.	Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs/ a line graph.	Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. Solve problems from pie charts and line graphs which have been constructed.

	for: mass/weight, capacity volume					
Summer 1						
Delcarative	To count in 2s, 5s and 10s. Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Read and write numbers to at least 100 in numerals. Represent and use number bonds and related subtraction facts within 20. Develop fluency in addition and subtraction facts within 10.	Tell and write the time to five minutes, including quarter past/to the hour. Know the number of minutes in an hour and the number of hours in a day. Recognise, find, name and write fractions 1/3 , 1/4 ,2/4 and 3/4 of a length, shape, set of objects or quantity Recognise the equivalence of 2/4 and 1/2. 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 fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise and show, using diagrams, equivalent fractions with small denominators. Recognise and use symbols for pounds (£) and pence (p). Know the number of seconds in a minute and the number of days in each month, year and leap year. Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.		Identify and describe simple 3-D shapes, including cubes and other cuboids, from 2-D representations. Describe positions on a 2-D grid as coordinates in the first quadrant. Know angles are measured in degrees Identify acute and obtuse angles. Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and 1/2 a turn (total 180°); other multiples of 90 Recognise the place value of each digit in numbers up to 2 dp Know that 10 tenths are equivalent to 1 and 1 is 10x the size of 0.1. Know that 10 hundredths are equivalent to 1 tenth and that 0.1 is 10x the size of 0.01 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	Name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Describe positions on the full coordinate grid (all four quadrants). Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and 1/2 a turn (total 180°); other multiples of 90°/ or are vertically opposite Recognise the place value of each digit in numbers up to 3 dp. Understand the relationship between the powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply by 10, 100 and 1000).
Procedural	Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5	Draw the hands on a clock face and write the time to five minutes, including quarter past/to the hour. Compare and sequence intervals of time.	Find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	Estimate, compare and calculate different measures, including money in pounds and pence.	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.	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.

	and 10 multiplication tables. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. Add and subtract one-digit and two-digit numbers to 20, including zero. Read, write and interpret mathematical statements involving addition, subtraction and equals signs. Compose numbers to 10 from 2-parts, and partition numbers to 10 into parts.	Write simple fractions for example, 1/2 of 6 = 3 Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. Add and subtract amounts of money to give change, using both £ and p in practical contexts. Record and compare time in terms of minutes, seconds and hours. Compare the duration of events.		Estimate and compare acute, obtuse and reflex angles. Draw given angles and measure them in degrees (°). Describe movements between positions as translations of a given unit to the left/right and up/down. Plot specified points and draw sides to complete a given polygon. Draw polygons specified by coordinates in the first quadrant and translate within the first quadrant. 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. Identify lines of symmetry in 2-D 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. Compose and decompose numbers up to 2 decimal places using standard and non-standard partitioning.	Illustrate parts of circles, including radius, diameter, and circumference. Draw and translate simple shapes on the coordinate plane and reflect them in the axes. Draw 2-D shapes using given dimensions and angles. Compose and decompose numbers / up to 3 decimal places
Conditional	Solve one-step problems involving multiplication and division, using	Ask and answer simple questions by counting the number of objects in	Solve simple problems in a practical context involving addition and	Solve simple problems in a practical context involving addition and	Distinguish between regular and irregular polygons based on	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

	concrete objects, pictorial representations and arrays with support.	each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data.	subtraction of money of the same unit, including giving change.	subtraction of money of the same unit, including giving change. Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation.	reasoning about equal sides and angles. Use the properties of rectangles to deduce related facts and find missing lengths and angles.	Use the properties of rectangles to deduce related facts and find missing lengths and angles.
Summer 2						
Declarative	Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside Recognise and use language relating to dates, including the days of the week, weeks, months and years. Recognise and know the value of different denominations of coins and notes. Recognise and use language relating to dates, including the days of the week, weeks, months and years	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise). Recognise and use language relating to dates, including the days of the week, weeks, months and years. Recognise and know the value of different denominations of coins and notes. Recognise and use language relating to dates, including the days of the week, weeks, months and years	Identify right angles in 2-D shapes and describe them using precise language, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3-D shapes using precise language, including the number of edges, vertices and faces. Recognise 3-D shapes in different orientations and describe them. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Recognise angles as a property of shape or a description of turn. Identify right-angles, recognise that two right-angles make a half-turn, three make three quarters of a turn and four a whole turn.	Read and write time in analogue and digital 12- and 24-hour clocks. Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal, and the angles are equal. Identify acute and obtuse angles. Describe positions on a 2-D grid as coordinates in the first quadrant.	Count backwards through zero to include negative numbers Count forwards and backwards with positive and negative whole numbers including through zero Read and write time in analogue and digital 12- and 24-hour clocks.	Count backwards through zero to include negative numbers Count forwards and backwards with positive and negative whole numbers including through zero Read and write time in analogue and digital 12- and 24-hour clocks.

Skills Progression Maths Reception -Year 6

Procedural	Make whole, half, quarter and three-quarter turns in both directions. Measure and record: lengths/heights, mass/weight, capacity volume, time. Measure and record time. (How many jumps can I do in a minute)	Make whole, half, quarter and three-quarter turns in both directions. Measure and record: lengths/heights, mass/weight, capacity volume, time. Measure and record time. (How many jumps can I do in a minute)	Draw 2-D shapes and make 3-D shapes using modelling materials. Identify whether angles are greater than or less than right-angle. Interpret and present data using bar charts, pictograms and tables.	Convert time between analogue and digital 12- and 24-hour clocks. Convert from hours to minutes; minutes to seconds; years to months; weeks to days. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify lines of symmetry in 2-D 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. Compare and order angles up to two right angles by size. Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Describe movements between positions as translations of a given	Convert time between analogue and digital 12- and 24-hour clocks. Convert from hours to minutes; minutes to seconds; years to months; weeks to days. . Convert between different units of measure (for example, kilometre to metre; hour to minutes).	Use negative numbers in context and calculate intervals across zero. Convert time between analogue and digital 12- and 24-hour clocks. Convert from hours to minutes; minutes to seconds; years to months; weeks to days. Convert between different units of measure (for example, kilometre to metre; hour to minutes).

				unit to the left/right and up/down. Plot specified points and draw sides to complete a given polygon. Draw polygons specified by coordinates in the first quadrant and translate within the first quadrant.		
Conditional	Compare, describe and solve practical problems for: lengths/heights, mass/weight, capacity volume, time. Connect turning clockwise with movement on a clock face. Sequence events in chronological order.	Compare, describe and solve practical problems for: lengths/heights, mass/weight, capacity volume, time. Connect turning clockwise with movement on a clock face. Sequence events in chronological order.	Order and arrange combinations of mathematical objects in patterns and sequences. Compare 2D and 3D shapes by reasoning about similarities and differences in properties. 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. Order and arrange combinations of mathematical objects in patterns and sequences.	Solve problems involving converting units of time. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs .	Solve problems involving converting units of time.	Solve problems involving converting units of time.

Early Years Foundation Stage

Year Group	Autumn Term	Spring Term	Summer Term

<table>
<tr><td rowspan="4">Reception</td><td colspan="5">Mastering Number: Subitising
Subitise (recognise quantities without counting)
Identify smaller numbers within a number (conceptual subitising)</td><td rowspan="4">In this half-term, the children will consolidate their understanding of concepts previously taught through working in a variety of contexts and with different numbers.</td></tr>
<tr><td colspan="5">Mastering Number: Cardinality, ordinality and counting
Say number words in sequence.
Count objects in irregular arrangements.
Count objects from a larger group.
Link the number symbol (numeral) with its cardinal number value.
Match numeral to quantity.
Recognise amounts that amounts that have been rearranged remain the same, if nothing has been added or taken away (conservation).</td></tr>
<tr><td colspan="5">Mastering Number: Composition
Partition a number in a range of ways and identify that the pairs of numbers make the same total.
Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
Understand that group that has been partitioned can be recombined to make the same total.
Understand that a number can be partitioned into more than two groups.
Understand how many things are hidden from a known quantity.</td></tr>
<tr><td colspan="5">Mastering Number: Comparison
Compare collections and talk about which group has more or less things.
Check that groups are equal by matching on a one-to-one basis.
Say which number is larger by counting or matching one-to-one.
Compare numbers that are far apart, near to and next to each other.
Say when a number does not match a quantity.
Recognise that if they add one they will get the next number and if they subtract one they will get the previous number.</td></tr>
<tr><td><u>Getting to Know You</u>
Key times of the day, class routines.</td><td><u>It's Me 1,2,3</u>
Representing 1,2,3 Comparing 1,2,3</td><td><u>Alive in 5</u>
Introducing zero Comparing numbers to 5.</td><td><u>Building 9 & 10</u>
9 & 10 Comparing numbers to 10</td><td><u>To 20 and Beyond</u>
Building numbers beyond 10</td><td><u>Find My Pattern</u>
Doubling
Sharing & Grouping
Even and Odd</td></tr>
</table>

Skills Progression Maths Reception -Year 6

		Exploring the continuous provision inside and out.	Composition of 1,2,3	Composition of 4 & 5.		Counting patterns beyond 10	
		Where do things belong? Positional language.	Circles & triangles	Compare Mass (2) Compare Capacity (2)	Bonds to 10	Spatial Reasoning (1) Match, Rotate, Manipulate	Spatial Reasoning (3) Visualise and Build
			Positional language				
		<u>Just Like Me</u> Match & sort. Exploring pattern.	**<u>Light & Dark</u>** Representing numbers to 5	**<u>Growing 6,7,8</u>** 6, 7 & 8 Making pairs		**<u>First, Then, Now</u>** Adding More Taking Away	**<u>On the Move</u>** Deepening Understanding Patterns and Relationships
			One more one less		3D-shape Pattern (2)	Spatial Reasoning (2) Compose and Decompose	Spatial Reasoning (4) Mapping
		Compare amounts. Compare size, mass and capacity.	Shapes with 4 sides	Combining 2 groups.			
			Time	Length & Height			
				Time			
Pattern, Shape & Space and Measure will be covered through White Rose blocks,	Pattern	Copy an AB pattern. Continue an AB pattern. Create their own AB pattern. Spot an error in an AB pattern. Identify the unit of repeat in a pattern.		Continue an ABC pattern. Continue an ABB pattern. Continue an ABBC pattern. Continue a pattern which ends mid-unit of repeat. Create their own ABB and ABBC patterns. Spot an error in an ABB pattern.		Use symbols to represent a pattern. Recreate a pattern in a different medium. Create a pattern which works in a circle. Create a cyclical pattern which works with a fixed number of spaces.	
	Shape and Space	Move themselves and objects around, so they see things from different perspectives.		Explore shapes, the attributes of particular shapes and select shapes to fulfil a particular need. Discuss items built in terms of how towers are built and why certain shapes		Notice shape properties of objects that they want to represent and think about the appropriateness of the shapes they choose. Describe properties of shapes.	

taught in addition to Mastering Number.		Visualise how things will appear when turned around and imagining how they might fit together. Make constructions, patterns and pictures, and select shapes which will fit when rotated or flipped in insert boards, shape sorters and jigsaws. Notice the results of rotating and reflecting images, and in visualising them. Use language of position and direction.	are chosen to make a tower, and the space that has been created within an enclosure. Represent spatial relationships in small world play. Construct and create things that represent objects in their environment.	Develop an awareness of the properties of shape.
	Measures	Recognise attributes of measure and use vocabulary to describe them. Use time to sequence events.	Compare continuous quantities. Show an awareness of comparison in estimating and predicting. Compare indirectly. Recognise the relationship between the size and number of units.	Use units to compare things. Experience specific time spans in order to start to develop an overall sense of time.
ACP: Continuous throughout. Through direct teaching, small group work and continuous provision, our EYFS team regularly observe and assess children's learning to inform their next steps planning (e.g. observation, assessment, planning cycle).				