Year 1 Maths Curriculum

Autumn Term		
Block 1- Place value to 10		
Declarative	**Procedural**	**Conditional**
Read and write numbers from 1 to 20 in numerals and words. Recognise odd and even numbers. Identify one more or less than a given number.	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	Reason about the location of numbers to 10 within the linear number system, including comparing using < > and =.
Block 2- Addition and subtraction within 10		
Declarative	**Procedural**	**Conditional**
Represent and use number bonds and related subtraction facts within 10 Develop fluency in addition and subtraction facts within 10.	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 partition numbers to 10 into parts.	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations. Solve missing number problems such as 7 = * - 9 Relate additive expressions and equations to real-life contexts.
Block 3 Shape		
Declarative	**Procedural**	**Conditional**
(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,	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.	Connect turning clockwise with movement on a clock face.

around, near, close and far, up and down, forwards and backwards, inside and outside.

Spring Term		
Block 1 Place Value to 20		
Declarative	**Procedural**	**Conditional**
Read and write numbers to at least 20 in numerals. Identify one more or less than a given number.	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	Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =.
Block 2 Addition and subtraction within 20		
Declarative	**Procedural**	**Conditional**
Represent and use number bonds and related subtraction facts within 20. Develop fluency in addition and subtraction facts within 10.	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.	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations. Solve missing number problems such as 7 = * - 9 Relate additive expressions and equations to real-life contexts.
Block 3 Place Value to 50		
Declarative	**Procedural**	**Conditional**

Read and write numbers to at least 50 in numerals. Identify one more or less than a given number.	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	

Block 4 Length and Height

Declarative	Procedural	Conditional
	Measure and record: lengths/heights, mass/weight, capacity volume, time.	Compare, describe and solve practical problems for: lengths/heights,

Block 5 Mass and Volume

Declarative	Procedural	Conditional
	Measure and record: mass/weight, capacity volume	Compare, describe and solve practical problems for: mass/weight, capacity volume

Summer Term

Block 1 Multiplication and Division

Declarative	Procedural	Conditional
	Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	Solve one-step problems involving multiplication and division, using concrete objects, pictorial representations and arrays with support.

Block 2 Fractions

Declarative	Procedural	Conditional
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.	

Block 3 Position and Direction

Declarative	Procedural	Conditional
Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between,	Make whole, half, quarter and three-quarter turns in both directions.	Connect turning clockwise with movement on a clock face.

around, near, close and far, up and down, forwards and backwards, inside and outside		
Block 4 Place value to 100		
Declarative	**Procedural**	**Conditional**
Read and write numbers to at least 100 in numerals.

Count to and across 100 forwards and backwards.

Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.

Recognise odd and even numbers. | 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 | |
Block 5 Money		
Declarative	**Procedural**	**Conditional**
Recognise and know the value of different denominations of coins and notes.		
Block 6 Time		
Declarative	**Procedural**	**Conditional**
Recognise and use language relating to dates, including the days of the week, weeks, months and years.

Tell the time to the hour and half past the hour. | Measure and record time. (How many jumps can I do in a minute) | Sequence events in chronological order. |

Year 2 Maths Curriculum

Autumn Term		
Block 1- Place value		
Declarative	**Procedural**	**Conditional**
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	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.	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.
Block 2- Addition and subtraction		
Declarative	**Procedural**	**Conditional**
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.	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 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...?"	Solve problems with addition and subtraction using concrete objects 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
Spring Term		
Block 1 Multiplication and division		
Declarative	**Procedural**	**Conditional**

Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	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 (commutative) and division of one number by another cannot

Block 2 Shape		
Declarative	**Procedural**	**Conditional**
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	Compare and sort common 2-D and 3-D shapes and everyday objects.	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.

Block 3 Length and height		
Declarative	**Procedural**	**Conditional**
	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	

Declarative	Procedural	Conditional
	Compare and order lengths, mass, volume/capacity and record the results using >, < and =	

Block 4 Mass, capacity and temperature		
Declarative	**Procedural**	**Conditional**
	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 =	

Block 5 Money		
Declarative	**Procedural**	**Conditional**
Recognise and use symbols for pounds (£) and pence (p).	Combine amounts of money 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

Summer Term		

Block 1 Fractions		
Declarative	**Procedural**	**Conditional**
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	Write simple fractions for example, 1/2 of 6 = 3	

Block 2 Time		
Declarative	**Procedural**	**Conditional**
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.	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.	

Block 3 Statistics		
Declarative	**Procedural**	**Conditional**
	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.

Block 4 Position and direction		
Declarative	**Procedural**	**Conditional**
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).		Order and arrange combinations of mathematical objects in patterns and sequences.

Year 3 Maths Curriculum

Autumn Term

Block 1- Place value (1000)

Declarative	Procedural	Conditional
Read and write numbers up to 1000 in numerals and in words. Recognise the place value of each digit in a three-digit number. Identify numbers using different representations. 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.	Order and compare numbers up to 1000. Represent and estimate numbers using different representations. Compose and decompose 3-digit numbers using standard and non-standard partitioning.	Reason about the location of any 3-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10. Solve number problems and practical problems involving the declarative and procedural knowledge above.

Block 2- Addition and subtraction

Declarative	Procedural	Conditional
	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. Solve problems involving multiplying and adding. Apply place-value knowledge to known additive and multiplicative number facts (scaling by 100). Estimate and use inverse operations to check answers to a calculation.

Spring Term

Block 1 Multiplication and Division A

Declarative	Procedural	Conditional
Recall multiplication and division facts for multiplication tables up to 12 × 12 and recognise	Use place value, known and derived facts to multiply and divide mentally, including	

| products in multiplication tables as multiples of the corresponding number. | multiplying by 0 and 1; dividing by 1; multiplying together three numbers. | |

Block 2 Multiplication and Division B		
Declarative	Procedural	Conditional
	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.	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 (quotative division). Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.

Block 3 Measurement: Length and perimeter		
Declarative	Procedural	Conditional
	Measure, compare, add and subtract lengths (m, cm, mm). Measure the perimeter of simple 2-D shapes.	

Summer Term		
Block 1 Fractions A		
Declarative	Procedural	Conditional
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.	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.	

Block 2 Measurement: Mass and Capacity		
Declarative	Procedural	Conditional
	Measure, compare, add and subtract mass (kg, g), volume/capacity (l, ml).	

Block 3 Fractions B		
Declarative	Procedural	Conditional
Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. Find unit fractions of quantities using known division facts. (Multiplication tables fluency).	Add and subtract fractions with the same denominator within one whole.	Solve problems that involve Year 3 declarative and procedural fractions knowledge. Reason about the location of any fraction within 1 in the linear number system.

Block 4 Measurement: Money		
Declarative	Procedural	Conditional
	Add and subtract amounts of money to give change, using both £ and p in practical contexts.	

Block 5 Measurement: Time		
Declarative	Procedural	Conditional
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. 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.	Record and compare time in terms of minutes, seconds and hours. Compare the duration of events.	

Block 6 Properties of Shapes		
Declarative	Procedural	Conditional

Recognise 3-D shapes in different orientations and describe them. 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. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Identify right angles in 2-D shapes in different orientations.	Draw 2-D shapes and make 3-D shapes using modelling materials. Identify whether angles are greater than or less than right-angle.	
Block 7 - Statistics		
.	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 Maths Curriculum

Autumn Term		
Block 1- Place value (10,000)		
Declarative	Procedural	Conditional
Identify and represent numbers using different representations. Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). Count in multiples of 6, 7, 9, 25 and 1000. Count backwards through zero to include negative numbers. Find 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. 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.	Order and compare numbers beyond 1000. Estimate numbers using different representations. Compose and decompose 4-digit numbers using standard and non-standard partitioning. Round any number to the nearest 10, 100 or 1000.	Reason about the location of any 4-digit number in the linear number system, including identifying the previous and next multiple of 1000 and 100 and rounding to the nearest of each. Solve number and practical problems that involve all of the above and with increasingly large positive numbers.
Block 2- Addition and subtraction		
Declarative	Procedural	Conditional
	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. Solve problems involving multiplying and adding. Apply place-value knowledge to known additive and multiplicative number facts (scaling by 100).

		Estimate and use inverse operations to check answers to a calculation
Block 3 Area		
Declarative	Procedural	Conditional
	Find the area of rectilinear shapes by counting squares	
Block 4 Multiplication and division A		
Declarative	Procedural	Conditional
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 place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers.	
Spring Term		
Block 1 Multiplication and Division B		
Declarative	Procedural	Conditional
Recognise factor pairs. 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.	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Use factor pairs and commutativity in mental calculations. Solve division problems, with 2-digit dividends and 1-digit divisors that involve remainders.	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. 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. Understand and apply the distributive property of multiplication. Estimate and use inverse operations to check answers to a calculation.
Block 2 Length and perimeter		

Declarative	Procedural	Conditional
	Convert between different units of measure (for example, kilometre to metre; hour to minutes). Measure and calculate the perimeter of rectilinear figures (including squares) in centimetres and metres. Find the perimeter of regular and irregular polygons.	

Block 3 Fractions		
Declarative	Procedural	Conditional
Recognise families of common equivalent fractions.	Show, using diagrams, families of common equivalent fractions. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. Convert mixed numbers to improper fractions and vice versa.	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.

Block 4 Decimals A		
Declarative	Procedural	Conditional
Recognise and write decimal equivalents to 1/4, 1/2, 3/4.	Recognise and write decimal equivalents of any number of tenths or hundredths.	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.]

Summer Term		
Block 1 Decimals B		
Declarative	Procedural	Conditional

	Compare numbers with the same number of decimal places up to two decimal places. Round decimals with one decimal place to the nearest whole number.	Solve simple measure and money problems involving fractions and decimals to two decimal places.
Block 2 Money		
Declarative	Procedural	Conditional
	Estimate, compare and calculate different measures, including money in pounds and pence.	
Block 3 Time		
Declarative	Procedural	Conditional
Read and write time in analogue and digital 12- and 24-hour clocks.	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).	Solve problems involving converting units of time.
Block 4 Properties of Shapes		
Declarative	Procedural	Conditional
Identify acute and obtuse angles. Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal, and the angles are equal.	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Compare and order angles up to two right angles by size. 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.	
Block 5 Statistics		
Declarative	Procedural	Conditional

	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.	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.
Block 6 Position and Direction		
Declarative	Procedural	Conditional
Describe positions on a 2-D grid as coordinates in the first quadrant.	Describe movements between positions as translations of a given unit to the left/right and up/down. Plot specified points and draw sides to complete a given polygon. Draw polygons specified by coordinates in the first quadrant and translate within the first quadrant.	

Year 5 Maths Curriculum

Autumn Term		
Block 1- Place value (1,000,000)		
Declarative	Procedural	Conditional
Read and write numbers to at least 1 000 000 and determine the value of each digit. Recognise the place value of each digit in numbers with up to 2 decimal places. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. Count forwards and backwards with positive and negative whole numbers, including through zero. 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. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	Order and compare numbers to at least 1 000 000. Compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.	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. Solve number problems and practical problems that involve all Year 5 Declarative and Procedural knowledge. Interpret negative numbers in context.
Block 2- Addition and subtraction		
Declarative	Procedural	Conditional
	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.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).

Declarative	Procedural	Conditional
		Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of =. Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

Block 3: Multiplication and Division A		
Declarative	Procedural	Conditional
Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3). Know and use the vocabulary of prime numbers, prime factors and composite (non- prime) numbers. Recall prime numbers up to 19. 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.		

Spring Term		

Block 1 Fractions B		
Declarative	Procedural	Conditional
	Multiply simple pairs of proper fractions, writing the answer in its simplest form. Divide proper fractions by whole numbers.	

Block 2 Decimals		
Declarative	Procedural	Conditional

Identify the value of each digit in numbers given 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]. Multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places. 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.
Block 3 Ratio		
Declarative	Procedural	Conditional
	Calculate percentages of quantities. 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 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.
Block 4 Measurement: Area		
Declarative	Procedural	Conditional
Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes.	Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].	
Block 5 Statistics		
Declarative	Procedural	Conditional

	Interpret and construct pie charts and line graphs. Calculate and interpret the mean as an average.	Solve problems from pie charts and line graphs which have been constructed.

Summer Term		
Block 1 Shape		
Declarative	Procedural	Conditional
Recognise and describe simple 3-D shapes. Name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite.	Draw 2-D shapes using given dimensions and angles. Build simple 3-D shapes, including making nets. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. Illustrate parts of circles, including radius, diameter, and circumference.	
Block 2 Geometry: Position and Direction		
Declarative	Procedural	Conditional
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.	
Block 3 Measurement: Converting Units		
Declarative	Procedural	Conditional
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.	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.
Block 4 Algebra		
Declarative	Procedural	Conditional
	Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

	Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables. Perform mental calculations, including with mixed operations and large numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations.	Solve problems involving addition, subtraction, multiplication, and division. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Year 6 Maths Curriculum

Autumn Term		
Block 1- Place value (10,000,000)		
Declarative	Procedural	Conditional
Read and write numbers up to 10 000 000 and determine the value of each digit. Recognise the place value of each digit in numbers with up to 10 million, including decimal fractions. 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). Round any whole number to a required degree of accuracy.	Order and compare numbers up to 10 0000. Compose and decompose numbers with up to 10 million using standard and non-standard partitioning. Use negative numbers in context and calculate intervals across zero.	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. Solve number problems and practical problems that involve all Year 6 Declarative and Procedural knowledge.
Block 2- Addition and subtraction		
Declarative	Procedural	Conditional
Sustain fluency in multiplication table facts, and corresponding division facts, through continued practice. Identify common factors, common multiples and prime numbers.	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. Divide numbers up to 4 digits by a two-digit number using the formal written method of short	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Solve problems involving addition, subtraction, multiplication, and division. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

	division where appropriate, interpreting remainders according to the context.	
	Perform mental calculations, including with mixed operations and large numbers.	
	Use their knowledge of the order of operations to carry out calculations involving the four operations.	

Block 3: Fractions A		
Declarative	Procedural	Conditional
	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.	
	Compare and order fractions, including fractions > 1.	
	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	

Spring Term		

Block 1 Fractions B		
Declarative	Procedural	Conditional
	Multiply simple pairs of proper fractions, writing the answer in its simplest form.	
	Divide proper fractions by whole numbers.	

Block 2 Decimals		
Declarative	Procedural	Conditional
Identify the value of each digit in numbers given 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]. Multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places.	Solve problems which require answers to be rounded to specified degrees of accuracy.

	Use written division methods in cases where the answer has up to two decimal places.	
Block 3 Ratio		
Declarative	Procedural	Conditional
	Calculate percentages of quantities. 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 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.
Block 4 Measurement: Area		
Declarative	Procedural	Conditional
Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes.	Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].	
Block 5 Statistics		
Declarative	Procedural	Conditional
	Interpret and construct pie charts and line graphs. Calculate and interpret the mean as an average.	Solve problems from pie charts and line graphs which have been constructed.
Summer Term		
Block 1 Shape		
Declarative	Procedural	Conditional

Recognise and describe simple 3-D shapes. Name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite.	Draw 2-D shapes using given dimensions and angles. Build simple 3-D shapes, including making nets. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. Illustrate parts of circles, including radius, diameter, and circumference.	
Block 2 Geometry: Position and Direction		
Declarative	Procedural	Conditional
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.	
Block 3 Measurement: Converting Units		
Declarative	Procedural	Conditional
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.	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.
Block 4 Algebra		
Declarative	Procedural	Conditional
	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. Perform mental calculations, including with mixed operations and large numbers.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Solve problems involving addition, subtraction, multiplication, and division. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

| | Use their knowledge of the order of operations to carry out calculations involving the four operations. | |