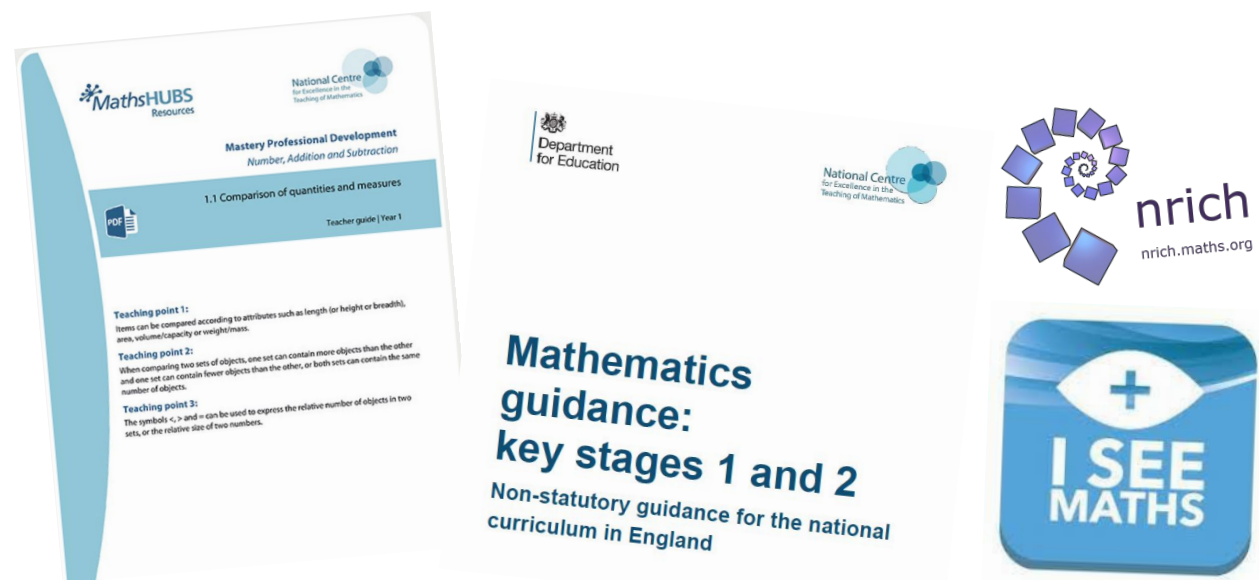


At Staynor Hall, we aim for all learners to be confident mathematicians who reach their full potential. To achieve this, we use a mastery approach to teaching mathematics, ensuring all children are given opportunity to dive deeper into their understanding through reasoning, problem solving and fluency throughout their learning journey. The progression of curriculum allows children to access learning in a logical, coherent way that spirals so that children access learning in small chunks, having further encounters of knowledge that develop depth of understanding. Knowledge acquisition is planned so that children make purposeful links across different areas of mathematics, with many aspects, such as measure and statistics, being taught alongside areas such as number and place value.

Our aim is for children to gain automaticity of basic number facts and structures in order for them to be competent mathematicians who can delve deep into the conceptual understanding of mathematics. To support with the acquisition of this, children in Reception, Key Stage 1 and Key Stage 2 access a daily Maths lesson, as well as additional Foundational Fluency sessions to develop automaticity with number and calculation. Children in our Tiny Steps and Nursery provision access short, daily sessions. All our EYFS and KS1 children access additional maths within their provision areas.

As a school, our learning journey is supported by the materials created by National Centre for Excellence in the Teaching of Mathematics (NCETM) and the Department of Education's Ready to Progress Criteria. Teachers use these materials to help inform lesson design so that success and depth for all can be achieved. To broaden and deepen understanding further, teachers use additional resources supported by the NCETM to enrich our curriculum, such as NRICH and Gareth Metcalfe.



At the heart of all our lessons are the key areas of reasoning, problem solving and fluency. A typical lesson may involve the following areas:

- Recap of relevant prior knowledge
- Exploring a new concept and sharing ideas
- Rich mathematical discussion, with precise vocabulary use and development
- Direct modelling and practise of key concepts, including tackling misconceptions around these
- Opportunity to independently practise knowledge acquisition through our spiral questioning method, where children have the opportunity to show their depth of knowledge:
 - Explore - children access a problem in different ways (fluency, reasoning or problem solving), showing they understanding the key concept. Independence is encouraged through the use of a Hint at this stage if children require support.
 - Explain - aimed at exposing misconceptions to ensure these have been addressed
 - Extend - an opportunity to go deeper into the concept

Reception	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area Knowledge acquisition featured in the unit	Number Songs with actions and puppets Measure Days of the week My school day	Number Songs with actions and puppets Measure Days of the week My school day	Number Number sense Number 1 (Cardinality)	Number Number sense Number 2 (Discuss one more) (Cardinality)	Number Number sense Number 3 (Discuss one more) (Cardinality)	Number Number sense Number 4 (Discuss one more) (Cardinality) (Double)	Number Number sense Number 5	Number Ordering Numbers 1-5	Calculation Every number can be made from one (Composition)	Calculation Number composition (Part, part, whole)	Calculation Number composition (Part, part, whole)	Geometry Shapes, Shapes, Everywhere! 2D Shape	Pattern Can you see my pattern? Identifying repeating patterns
							Calculation Finding one more	Calculation Finding one less					
Foundational Fluency unit			MN weeks 1 - 5					MN weeks 6 - 10					
Knowledge acquisition			Subitise within 1, 2 and 3	Use 1:1 correspondence and count in sequence to 5	Make collections of 3 and NOT 3	Subatise and make arrangements within 3	Represent a given number on fingers without looking and compare 2 sets using the language 'more than' and 'fewer than'	Count and make 5 in different ways. Know 5 and 5 make 10.	Subatise upto 4 and compare groups of up to 3 objects.	Identify parts and wholes.	Investigate ways to compose and decompose up to 5.	Count up to 10, use the 'stopping number' and begin recognising numerals to 5.	Assess and reteach
	1	2	3	4	5	6	7	8	9	10	11	12	13
C2 focus area Knowledge acquisition featured in the unit	Cons	Number Subitising (10 Black dots)	Number Number sense Number 6	Calculation Addition from counting on	Number Number sense Number 7	Number Number sense Number 8	Multiplication and Division Doubling and halving	Pattern Creating repeating patterns	Number Number sense Number 9	Number Number sense Number 10	Number Number sense Number 10	Calculation Number bonds to ten.	Geometry 3D Shape
Foundational Fluency unit		MN weeks 11 - 15						MN weeks 16 - 20					
Knowledge acquisition	Assess and reteach	Recognise and match numbers 1-5 to quantities.	Order numerals 1 - 5 and recognise when there is '1 more'.	Find ways of partitioning a set of 5.	Recognise 6 as '5 and a bit' and 7 as '5 and 2 more'	Use 'more than' and 'fewer than' to compare quantities	Assess and reteach	Look at composition for numbers 6 - 10 as '5 and a bit'	Order quantities to 10	Use parts and whole to identify missing parts	Identify equal sets and say the whole for 2 equal parts	Identify equal sets and say the whole for 2 equal parts	Assess and reteach
	1	2	3	4	5	6	7	8	9	10	11	12	13
C3 focus area Knowledge acquisition featured in the unit	Geometry Spatial awareness/positional language	Number Counting patterns 10-20	Number Counting patterns beyond 20.	Calculation Addition from counting on	Calculation Subtraction from counting back	Measure Length, height and distance	Measure Weight and capacity	Calculation Sharing	On the move		Consolidation		
									Extended problem solving and reasoning Spatial reasoning				
Foundational Fluency unit		MN weeks 21 - 25						MN weeks 26 - 31					
Knowledge acquisition	Assess and reteach	Count things that cannot be seen.	Subatise and make arrangements to 6	Make and show compositions up to 7	Compose 10 into 2 parts and find missing parts	Describe position of numbers in a sequence to 5	Assess and reteach	Subatise to 5 and explore '1 more' patterns	Counting review and assess	Number pattern review and assess	Comparison review and assess	Recall review and assess	Understanding review and assess

Year 1	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area	Unit 1 - Previous Reception experiences and counting within 100			Unit 2 - Comparison of quantities and part-whole relationships			Unit 3 - Numbers 0 to 5		Unit 4 - Recognise, compose, decompose and manipulate 2D and 3D shapes			Unit 5 - Numbers 0 to 10	
Knowledge acquisition featured in the unit	Number and Place Value <ul style="list-style-type: none"> Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number (first encounter) Read and write numbers to 100 in numerals (first encounter) 			Number and Place Value <ul style="list-style-type: none"> identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least count, read and write numbers to 20 in numerals; Measurement <ul style="list-style-type: none"> compare, describe and solve practical problems for lengths and heights and volume and capacity 			Number and Place Value <ul style="list-style-type: none"> count, read and write numbers to 20 in numerals; given a number, identify one more and one less identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least read and write numbers from 1 to 20 in numerals and words RTP 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$. 1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers		Geometry <ul style="list-style-type: none"> recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. RTP 1G-1 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. 1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.			Number and Place Value <ul style="list-style-type: none"> Count, read and write numbers to 20 in numerals; count; given a number, identify one more and one less identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least read and write numbers from 1 to 20 in numerals and words RTP 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$. 1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	
Foundational Fluency unit	MN weeks 1 - 5						MN weeks 6 - 10						
Knowledge acquisition		subitise within 5 and systematically explore the structure of and within 5	see 6, 7, 8 and 9 as composed of '5 and a bit'.	Subitise, represent and calculate with 6, 7, 8 and 9	use the words 'more than', 'fewer than' and 'equal to' to compare sets in different ways	count forwards from 0 to 10 and backwards from 10 to 0	Assess and reteach	identify the meaning of 'equal sets', identify which numbers within 10 are formed by doubles	show that even numbers are made of 2s and odd numbers have an odd 1	deepen their understanding of the composition of 6	deepen their understanding of the composition of 8	deepen their understanding of the composition of 10	Assess and reteach
C2 focus area	Unit 5 - Numbers 0 to 10	Unit 6 - Additive structures				Unit 7 - Addition and subtraction facts within 10			Unit 8 - Numbers 0 to 20				Unit 10 - Position and direction
Knowledge acquisition featured in the unit	See C1 week 12 and 13	Number - Addition and subtraction <ul style="list-style-type: none"> read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. RTP 1AS-2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.				Number - Addition and subtraction <ul style="list-style-type: none"> read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$. 			Number and Place Value <ul style="list-style-type: none"> count, read and write numbers to 20 in numerals; count; given a number, identify one more and one less identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least read and write numbers from 1 to 20 in numerals and words Measurement <ul style="list-style-type: none"> compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] measure and begin to record the following: lengths and heights 		Geometry - Position and Direction <ul style="list-style-type: none"> describe position, direction and movement, including whole, half, quarter and three quarter turns 		
Foundational Fluency unit	MN weeks 11 - 15						MN weeks 16 - 20						
Knowledge acquisition	Assess and reteach	Use number lines to identify the midpoint between 0 and 10 and to estimate length and	deepen their understanding of the composition of 7	deepen their understanding of the composition of 9	sort odd and even numbers to 10 and explore their composition of odd and even parts	partition a set of objects in different ways, including using hre language part, whole, splitting and combining	Assess and reteach	use systematic partitioning to identify patterns within numbers	recall and represent doubles and near doubles	identify the effect of adding or subtracting 1 to or from an even or odd number	identify the effect of adding or subtracting 2 to or from an even or odd number	Link partitioned of even numbers to subtraction 'stories'	Assess and reteach
C3 focus area	Unit 9 - Unitising and coin recognition					Unit 11 - Time		Numbers 10 to 100		Unit 12 - fractions		Unit 13 - measure	
Knowledge acquisition featured in the unit	Number and Place Value <ul style="list-style-type: none"> count in multiples of twos, fives and tens Measurement <ul style="list-style-type: none"> recognise and know the value of different denominations of coins and notes 					Measurement <ul style="list-style-type: none"> compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later] measure and begin to record the following: time (hours, minutes, seconds) 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. 		Number and Place Value <ul style="list-style-type: none"> recognise the place value of each digit in a two-digit number (tens, ones) read and write numbers to at least 100 in numerals and in words read and write numbers to 100 in numerals; Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. Y1 - count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number (further encounter) count, read and write numbers to 100 in numerals (further encounter)		Number - Fractions <ul style="list-style-type: none"> 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. 		Measure <ul style="list-style-type: none"> compare, describe and solve practical problems for: <ul style="list-style-type: none"> mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] 	
Foundational Fluency unit	MN weeks 21 - 25						MN weeks 26 - 31						
Knowledge acquisition	Assess and reteach	complete 'first, then, now' stories when 'first' and 'now' are given/missing	identify that the numbers 11-15 are composed of '10 and a bit'	compare the numbers 10-15, using the inequality symbol	read and write expressions using the + and = symbol and link to representations	identify that the order of the addends does not change the sum	Assess and reteach	recall missing parts in 7, 8 and 9	practise recognising and making the numbers 11-19	Use the partitioning structure of subtraction to identify what is 'not' included	write equations to match 'first, then, now' stories for subtraction and tell own stories.	complete subtraction equations in which the subtrahend or minuend is missing	use bonds of 10 to complete missing number calculations that involve subtracting from 10.

Year 2	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area	Unit 1 - Numbers 10 to 100			Unit 2 - Calculations within 20			Unit 3 - Fluently add and subtract within 10		Unit 4 - Addition and subtraction of two-digit numbers (1)		Unit 5 - Introduction to multiplication		
Knowledge acquisition featured in the unit	Number and Place Value <ul style="list-style-type: none"> 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. read and write numbers to 100 in numerals; (further encounter) recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 			Number - Addition and Subtraction <ul style="list-style-type: none"> represent and use number bonds and related subtraction facts within 20 add and subtract one-digit and two-digit numbers to 20, including zero using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> 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 			Number - Addition and Subtraction <ul style="list-style-type: none"> read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (Cont from Y1) solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$. recall and use addition and subtraction facts to 20 fluently 		Number - Addition and Subtraction <ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens add and subtract one-digit and two-digit numbers to 20, including zero 		Number and Place Value <ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward Number - Multiplication and Division <ul style="list-style-type: none"> 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. 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 (x), division (÷) and equals (=) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts 		
Foundational Fluency unit	MN weeks 1 - 5						MN weeks 6 - 10						
Knowledge acquisition		apply the composition of 6-9 to missing addend/sum questions	compare numbers within 10, use the language of 'greater than' and 'less than', inequality signs and representations	Recap and deepen knowledge of doubles within 10, including composition and calculating	Deepen the calculation and composition fluency of 6	Deepen the calculation and composition fluency of 8	Assess and reteach	Deepen calculation and reasoning with bonds to 10	Deepen knowledge of the composition of odd numbers	Deepen and reason around the composition of 7, including missing numbers	Deepen and reason around the composition of 9, including missing numbers	Deepen knowledge of composition of 11-19, including missing numbers	Assess and reteach
C2 focus area	Unit 5 - continued	Unit 6 - Introduction to division structures		Unit 7 - Shape		Unit 8 - Addition and subtraction of two-digit numbers (2)		Unit 9 - Money		Unit 10 - Fractions		Unit 11 - Time	Unit 12 - Position and direction
Knowledge acquisition featured in the unit	See weeks 11-13	Number - Multiplication and Division <ul style="list-style-type: none"> 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. 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 (x), division (÷) and equals (=) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts 		Geometry - Properties of Shape <ul style="list-style-type: none"> identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces 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 		Number - Addition and Subtraction <ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> two two-digit numbers 		Measurement <ul style="list-style-type: none"> 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 		Number - Fractions <ul style="list-style-type: none"> 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. recognise, find, name and write fractions $1/3$, $1/3$, $2/3$ and $3/4$ of a length, shape, set of objects or quantity write simple fractions for example, $1/2$ of 6 = 3 and recognise the equivalence of $2/4$ and $1/2$. 		Measurement <ul style="list-style-type: none"> 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. 	Geometry - Position and Direction <ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences 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)
Foundational Fluency unit	MN weeks 11 - 15						MN weeks 16 - 20						
Knowledge acquisition	Assess and reteach	Deepen knowledge of structure of numbers 11-20, including identifying the midpoint on a number line and comparing length	Develop fluency and reasoning when doubling with 6 - 9	Develop reasoning and fluency with bonds to 20	Use number bonds to reason about other calculations within 20.	Use double facts to calculate near doubles	Assess and reteach	Use double facts to calculate near doubles, including matching expressions to the calculation	Find the total of 3 addends, including looking for known facts within the calculations	Solve problems that cross the 10s barrier, reasoning the strategy used, with a particular focus on making 10 first through partitioning.	Calculating across 10 through reduction with a difference greater than or equal to 10.	Assess and reteach	
C3 focus area	Unit 13 - Multiplication and division - doubling, halving, quotative and partitive division			Unit 14- Sense of measure - capacity, volume, mass		SATs	*Unit 15* - Statistics				*Unit 16* Deeper Application and Consolidation		
Knowledge acquisition featured in the unit	Number - Multiplication and Division <ul style="list-style-type: none"> 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. calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts 			Measure <ul style="list-style-type: none"> compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than] and capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] measure and begin to record the following: mass/weight, capacity and volume 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 = 			Statistics <ul style="list-style-type: none"> 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 						
Foundational Fluency unit	MN weeks 21 - 25						MN weeks 26 - 31						
Knowledge acquisition	Assess and reteach	Calculating across 10 through reduction with a focus on using 10 as a 'landmark'	Identify multiples of 10 within 100, including the previous or next 10 and identification on a number line	To calculate the difference to find missing numbers with 20.	To subtract across the 10 boundary by subtracting to 10 first	To consolidate different subtraction strategies and reason their choice	Assess and reteach	Develop understanding that 20 is two 10s and find the missing part when the known part is less than 10	To use commutativity and comparison to explore calculations such as $4 + 6 = 6 + 4$	Deepen knowledge of additive strategies involving doubles and near doubles	Explore whether numbers are adjacent odd or even numbers that can turn into doubles when calculating	Deepen fluency around crossing 10s boundaries and bonds to 10	deepen fluency around addition and subtraction calculation with 20

Year 2	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area	Unit 1 - Numbers 10 to 100				Unit 2 - Calculations within 20			Unit 3 - Fluently add and subtract within 10	Unit 4 - Addition and subtraction of two-digit numbers (1)		Unit 5 - Introduction to multiplication		
Knowledge acquisition featured in the unit	Number and Place Value <ul style="list-style-type: none"> 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. read and write numbers to 100 in numerals; (further encounter) recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 				Number - Addition and Subtraction <ul style="list-style-type: none"> represent and use number bonds and related subtraction facts within 20 add and subtract one-digit and two-digit numbers to 20, including zero using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> 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 			Number - Addition and Subtraction <ul style="list-style-type: none"> read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (Cont from Y1) solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$. recall and use addition and subtraction facts to 20 fluently 	Number - Addition and Subtraction <ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens add and subtract one-digit and two-digit numbers to 20, including zero 		Number and Place Value <ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward Number - Multiplication and Division <ul style="list-style-type: none"> 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. 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 		
Foundational Fluency unit	MN weeks 1 - 5							MN weeks 6 - 10					
Knowledge acquisition		apply the composition of 6-9 to missing addend/sum questions	compare numbers within 10, use the language of 'greater than' and 'less than', inequality signs and representations	Recap and deepen knowledge of doubles within 10, including composition and calculating	Deepen the calculation and composition fluency of 6	Deepen the calculation and composition fluency of 8	Assess and reteach	Deepen calculation and reasoning with bonds to 10	Deepen knowledge of the composition of odd numbers	Deepen and reason around the composition of 7, including missing numbers	Deepen and reason around the composition of 9, including missing numbers	Deepen knowledge of composition of 11-19, including missing numbers	Assess and reteach
C2 focus area	Unit 5 - Introduction to multiplication continued			Unit 6 - Introduction to division structures			Unit 9 - Money	Unit 11 - Time	*Unit 15* - Statistics		Unit 8 - Addition and subtraction of two-digit numbers (2)	Unit 9 - Money continued	
Knowledge acquisition featured in the unit	Number and Place Value <ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward Number - Multiplication and Division <ul style="list-style-type: none"> 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. 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 			Consolidation			Number - Multiplication and Division <ul style="list-style-type: none"> 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. 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 	Measurement <ul style="list-style-type: none"> 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 	Measurement <ul style="list-style-type: none"> 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. 	Statistics <ul style="list-style-type: none"> 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 		Number - Addition and Subtraction <ul style="list-style-type: none"> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> two two-digit numbers 	<ul style="list-style-type: none"> solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
Foundational Fluency unit	MN weeks 11 - 15							MN weeks 16 - 20					
Knowledge acquisition	Assess and reteach	Deepen knowledge of structure of numbers 11-20, including identifying the midpoint on a number line and comparing length	Develop fluency and reasoning when doubling with 6 - 9	Develop reasoning and fluency with bonds to 20	Use number bonds to reason about other calculations within 20.	Use double facts to calculate near doubles	Assess and reteach	Use double facts to calculate near doubles, including matching expressions to the calculation	Find the total of 3 addends, including looking for known facts within the calculations	Solve problems that cross the 10s barrier, reasoning the strategy used, with a particular focus on making 10 first through partitioning.	Calculating across 10 through reduction with a difference greater than or equal to 10.	Assess and reteach	
C3 focus area	Unit 8 continued	Unit 10 - Fractions			Unit 13 - Multiplication and division - doubling, halving, quotative and partitive division			Unit 14- Sense of measure - capacity, volume, mass		Unit 7 - Shape		Unit 12 - Position and direction	
Knowledge acquisition featured in the unit	See C2 weeks 12-13	Number - Fractions <ul style="list-style-type: none"> 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. recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{3}$, $\frac{2}{3}$ 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 $\frac{1}{2}$. 			Number - Multiplication and Division <ul style="list-style-type: none"> 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. 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 			Measure <ul style="list-style-type: none"> compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than] and capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] measure and begin to record the following: mass/weight, capacity and volume choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$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 $=$ 	Geometry - Properties of Shape <ul style="list-style-type: none"> identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces 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 		Geometry - Position and Direction <ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences 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) 		
Foundational Fluency unit	MN weeks 21 - 25							MN weeks 26 - 31					
Knowledge acquisition	Assess and reteach	Calculating across 10 through reduction with a focus on using 10 as a 'landmark'	Identify multiples of 10 within 100, including the previous or next 10 and identification on a number line	To calculate the difference to find missing numbers with 20.	To subtract across the 10 boundary by subtracting to 10 first	To consolidate different subtraction strategies and reason their choice	Assess and reteach	Develop understanding that 20 is two 10s and find the missing part when the known part is less than 10	To use commutativity and comparison to explore calculations such as $4 + 6 = 6 + 4$	Deepen knowledge of additive strategies involving doubles and near doubles	Explore whether adjacent odd or even numbers that can turn into doubles when calculating	Deepen fluency around crossing 10s boundaries and bonds to 10	deepen fluency around addition and subtraction calculation with 20

Year 3	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area	Unit 1 - adding and subtracting across 10		Unit 2 - numbers to 1,000										Consolidation
Knowledge acquisition featured in the unit	Number - Addition and Subtraction Solve problems with addition and subtraction: <ul style="list-style-type: none"> using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods 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 recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 		Number - Number and Place Value <ul style="list-style-type: none"> count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number recognise the place value of each digit in a three-digit number (hundreds, tens, ones) compare and order numbers up to 1000 identify, represent and estimate numbers using different representations read and write numbers up to 1000 in numerals and in words solve number problems and practical problems involving these ideas Number Addition and Subtraction <ul style="list-style-type: none"> recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Measurement <ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 										
Foundational fluency Knowledge acquisition	Adding 1 Commutative: 7 + 1 and 1 + 7	Doubles of numbers to 5 1+1, 2+2, 3+3, 4+4, 5+5	Adding 2 Commutative: 7 + 2 and 2 + 7	Number bonds to 10 Commutative: 0+10, 1+9, 2+8, 3+7, 4+6	Adding 10 To single digits	Adding 0	The ones without a family 3 + 5, 5+3, 3+6, 6+3	Near Doubles within 10 3+4 4+3, 4+5, 5+4	Doubles of numbers to 10 6+6, 7+7, 8+8, 9+9, 10+10	Near doubles bridging 10 5+6, 6+5, 6+7, 7+6	Near doubles bridging 10 7+8, 8+7, 8+9, 9+8	Bridging 10 3+8, 8+3 3+9, 9+3	
	1	2	3	4	5	6	7	8	9	10	11	12	13
C2 focus area	Unit 3 - right angles		Unit 4 - Manipulating the additive relationship and securing mental calculation			Unit 5 - column addition		Unit 6 - 2, 4 and 8 times tables			Unit 7 - column subtraction		
Knowledge acquisition featured in the unit	Geometry - Properties of Shape <ul style="list-style-type: none"> recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle 		Number - Addition and Subtraction <ul style="list-style-type: none"> add and subtract numbers mentally, including a three-digit number and ones a three-digit number and tens a three-digit number and hundreds estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction 			Number - Addition and Subtraction <ul style="list-style-type: none"> add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction 		Number - Multiplication and Division <ul style="list-style-type: none"> recall and use multiplication and division facts for the 4 and 8 multiplication tables recall and use multiplication and division facts for the 2 multiplication tables write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, 			Number - Addition and Subtraction <ul style="list-style-type: none"> add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction 		
Foundational fluency Knowledge acquisition	Bridging 10 4+7, 7+4, 4+8, 8+4, 4+9, 9+4	Bridging 10 5+7, 7+5, 5+8, 8+5, 5+9, 9+5	Bridging 10 6+8, 8+6, 6+9, 9+6	All additive facts mix Teach 2 tt concept lesson	2 times table (multiplier first)	2 times table (multiplier first or second)	2 times table (division facts added in)	2 times table	2 times table Teach 5 tt concept lesson	5 times table (2x5 to 6x 5)	5 times table (2x5 to 6x 5)	5 times table (7x5 to 9x5)	5 times table (all)
	1	2	3	4	5	6	7	8	9	10	11	12	13
C3 focus area	Unit 8 -unit fractions					Unit 9 - non-unit fractions			Unit 10 - Parallel and perpendicular sides in polygons		Unit 11 - time		
Knowledge acquisition featured in the unit	Number - Fractions <ul style="list-style-type: none"> recognise, find and write fractions of a discrete set of objects: unit fractions and non unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators compare and order unit fractions, and fractions with the same denominators add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$] solve problems that involve all of the above. 					Number - Fractions <ul style="list-style-type: none"> recognise, find and write fractions of a discrete set of objects: unit fractions and non unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators compare and order unit fractions, and fractions with the same denominators add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$] solve problems that involve all of the above. 			Geometry - Properties of Shape <ul style="list-style-type: none"> draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them identify horizontal and vertical lines and pairs of perpendicular and parallel lines 		Measurement <ul style="list-style-type: none"> 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]. 		
Foundational fluency Knowledge acquisition	5 times table (all) and 2tt Teach 4 tt concept lesson	4 times table (2 x4 to 6x4)	4 times table (7 x4 to 9x4)	4 times table all facts comm and division facts	2, 4, 5tt facts comm and division facts	2, 4, 5tt facts comm and division facts	2, 4, 5tt facts comm and division facts Teach 10 tt concept lesson	10 times table	2,4,5,10 tt with comm and division facts	Consolidation and revisit time			

Year 4	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area	Unit 1 - review of column addition and subtraction			Unit 2 - numbers to 10,000				Unit 3 - perimeter			Unit 4 - 3, 6 and 9 times tables		
Knowledge acquisition featured in the unit	Number - Addition and Subtraction <ul style="list-style-type: none"> 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. 			Number - Number and Place Value <ul style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers Number - Addition and Subtraction <ul style="list-style-type: none"> 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. 				Measure <ul style="list-style-type: none"> measure the perimeter of simple 2-D shapes measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Geometry - Properties of Shapes <ul style="list-style-type: none"> compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes distinguish between regular and irregular polygons based on reasoning about equal sides and angles 			Number - Number and Place Value <ul style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 Number - Multiplication and Division <ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables (NC Y3 NCETM Y4) recall multiplication and division facts for multiplication tables up to 12×12 		
Foundational fluency Knowledge acquisition	Recap Year 3 All Addition/Subtraction facts within 10. 2,5,4, 10 tts Teach 8 tt concept lesson			8 times table 5 new facts (8x3, 8x6, 8x7, 8x8, 8x9)			All 8 times table Plus all previously learnt facts Teach 3 tt concept lesson			3 times table 4 new facts (3x3, 6x3, 7x3, 9x3)			3 times table plus all previous facts
C2 focus area	Unit 4 - 3, 6 and 9 times tables	Unit 5 - 7 times tables		Unit 6 - Understanding and manipulating multiplicative relationships				Unit 7 - coordinates		Unit 8 - recap of fractions	Unit 9 - fractions greater than 1		
Knowledge acquisition featured in the unit	See weeks C1 11-13	Number - Multiplication and Division <ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 		Number - Multiplication and Division <ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit 				Geometry - Position and Direction <ul style="list-style-type: none"> 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 		RTP Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	Number - Fractions See C3 weeks 1 - 3		
Foundational fluency Knowledge acquisition	All 3 times table Plus all previously learnt facts Teach 6 tt concept lesson		6 times table 3 new facts (6x6, 7x6, 9x6)		All 6 times table Plus all previously learnt facts Teach 9 tt concept lesson			9 times table 2 new facts (9x7, 9x9)	All 9 times table Plus all previously learnt facts		7 times tables 1 new fact (7x7)	7 times tables All facts now learnt	
C3 focus area	Unit 9 - fractions greater than 1			Unit 10 - symmetry		Unit 11 - time		Unit 12 - division with remainder		Unit 13 - transformations		Unit 14 - statistics	
Knowledge acquisition featured in the unit	Number - Fractions <ul style="list-style-type: none"> add and subtract fractions with the same denominator. They extend the use of the number line to connect fractions, numbers and measures. 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, $7/5 + 4/5 = 6/5 = 1 \frac{1}{5}$] (NC Y5 NCETM Y4) 			Geometry - Properties of Shapes <ul style="list-style-type: none"> 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 complete a simple symmetric figure with respect to a specific line of symmetry. 		Measure <ul style="list-style-type: none"> convert between different units of measure [for example, kilometre to metre; hour to minute] 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 		Number - Multiplication and Division <ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 		Geometry - Position and direction Transformations <ul style="list-style-type: none"> 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 		Statistics <ul style="list-style-type: none"> interpret and present discrete and continuous 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 	
Foundational fluency Knowledge acquisition	All times tables up to 9x9 Children with immediate recall of all tables, deepen understanding through knowledge of composition of tables. e.g. 7×3 is made of 5×3 and 2×3							MTC	Multiplication facts deepening - composition of tables. e.g. 7×3 is made of 5×3 and 2×3				

Year 5	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area	Unit 1 - decimal fractions					Unit 2 - money		Unit 3 - negative numbers			Unit 4 - short multiplication and short division		
Knowledge acquisition featured in the unit	<p>Number – Multiplication and Division</p> <ul style="list-style-type: none"> 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 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout <p>Number – Fractions</p> <ul style="list-style-type: none"> 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 count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. round decimals with one decimal place to the nearest whole number recognise and write decimal equivalents of any number of tenths or hundredths 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 read and write decimal numbers as fractions [for example, 0.71 = 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 <p>Measurement</p> <ul style="list-style-type: none"> use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. 					<p>Measure</p> <ul style="list-style-type: none"> Add and subtract amounts of money to give change, using both £ and p in practical contexts estimate, compare and calculate different measures, including money in pounds and pence Pupils build on their understanding of place value and decimal notation to record metric measures, including money. 		<p>Number – Number and Place Value</p> <ul style="list-style-type: none"> use negative numbers in context, and calculate intervals across zero Count backwards through zero to include negative numbers solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problem and harder correspondence problems such as n objects are connected to m objects. interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero and solve number problems and practical problems that involve all of the above 			<p>Number – Multiplication and Division</p> <ul style="list-style-type: none"> 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 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers multiply and divide numbers mentally drawing upon known facts divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context 		
Foundational fluency Knowledge acquisition	Consolidation of times tables to 12 x 12					Derived facts, both multiplication and division, from times tables facts for whole numbers e.g I know 3 x 7 so I also know 3 x 70, 30 x 70			Derived facts, both multiplication and division, from times tables facts for decimal numbers e.g 0.3 x 7 or 3.6 ÷ 0.6				
C2 focus area	Unit 4 - short multiplication and short division		Unit 5 - area and scaling				Unit 6 - calculating with decimal fractions			Unit 7 - factors, multiples and primes			
Knowledge acquisition featured in the unit	See C1 weeks 10-13		<p>Measurement</p> <ul style="list-style-type: none"> find the area of rectilinear shapes by counting squares calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes 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 <p>Number – Multiplication and Division</p> <ul style="list-style-type: none"> solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes 				<p>Number – Fractions</p> <ul style="list-style-type: none"> find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places multiply one-digit numbers with up to two decimal places by whole numbers <p>Number – Multiplication and Division</p> <ul style="list-style-type: none"> multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 <p>Measurement</p> <ul style="list-style-type: none"> They use multiplication to convert from larger to smaller units. convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) 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 			<p>Number – Multiplication and Division</p> <ul style="list-style-type: none"> identify common factors, common multiples and prime numbers identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers know and use the vocabulary of prime numbers, prime factors and composite (non prime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19 recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) <p>Measurement</p> <ul style="list-style-type: none"> estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] 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]. recognise when it is possible to use formulae for area and volume of shapes 			
Foundational fluency Knowledge acquisition	Derived facts, both multiplication and division, from times tables facts for decimal numbers e.g 0.3 x 7 or 3.6 ÷ 0.6				Multiply and divide by 10, 100 and 1000				Identify patterns and count in multiples of 7 and 9		Adding and subtracting fractions, including mixed numbers		
C3 focus area	Unit 7 -		Unit 8 - fractions				Unit 9 - converting measure			Unit 10 - angles			
Knowledge acquisition featured in the unit	See C2 weeks 11 - 13		<p>Number Fractions</p> <ul style="list-style-type: none"> recognise and show, using diagrams, equivalent fractions with small denominators recognise and 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 recognise and write decimal equivalents to 1/4, 1/2, 3/4 compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams 				<p>Measurement</p> <ul style="list-style-type: none"> understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints solve problems involving converting between units of time convert between miles and kilometres 			<p>Geometry – Properties of shape</p> <ul style="list-style-type: none"> identify acute and obtuse angles and compare and order angles up to two right angles by size identify 3-D shapes, including cubes and other cuboids, from 2-D representations know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (o) <p>Identify:</p> <ul style="list-style-type: none"> angles at a point and one whole turn (total 360o), angles at a point on a straight line and 1/2 a turn (total 180o), other multiples of 90o, use the properties of rectangles to deduce related facts and find missing lengths and angles 			
Foundational fluency Knowledge acquisition	Find fraction of an amount			Additional practise of fraction procedures				Consolidation					

Year 6	1	2	3	4	5	6	7	8	9	10	11	12	13
C1 focus area	Unit 1 - Calculating using knowledge of structures (1)				Unit 2 - Calculating using knowledge of structures (2)	Unit 3 - Multiples of 1000	Unit 4 - Numbers up to 10 000 000		Unit 5 - Multiplication and division				Consolidation
Knowledge acquisition featured in the unit	Number - addition and subtraction -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 Algebra -use simple formulae -express missing number problems algebraically				Number - multiplication and division <i>Pupils use and explain the equals sign to indicate equivalence, including in missing number problems (for example, $13 + 24 = 12 + 25$; $33 = 5 \times ?$)</i>	Number - addition and subtraction -add and subtract whole numbers with more than 4 digits, including using formal written methods -add and subtract numbers mentally with increasingly large numbers -use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy -solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Number: Number and Place Value -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 -round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 -solve number problems and practical problems that involve all of the above -Pupils identify the place value in large whole numbers. -round any whole number to a required degree of accuracy -solve number and practical problems that involve all of the above Number - addition, subtraction, multiplication and division -add and subtract whole numbers with more than 4 digits, including using formal written methods -add and subtract numbers mentally with increasingly large numbers -use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy -solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why -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 -use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	Number - Addition and Subtraction, Multiplication and Division -multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication -divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context -divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context -perform mental calculations, including with mixed operations and large numbers -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. Number - Fractions -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					
Foundational fluency Knowledge acquisition	Consolidation of written methods		Commutativity of addition and multiplication	Distributive law of multiplication	Distributive law of division	Order of operations	Order of operations	Consolidation	Identify one unknown in a calculation in addition/multiplication	Identify one unknown in a calculation - subtraction/division	Find two unknowns with only one possible value	Find two unknowns with only multiple possible values	Solve balancing equations with all parts known
C2 focus area	Unit 6 - area, perimeter, position and direction (including missing coordinates)			Unit 7 - fractions and percentages				Unit 8 - angles	Unit 9 - Draw, compose and decompose shapes (including circles)		Unit 10 - statistics		
Knowledge acquisition featured in the unit	Geometry - Position and Direction -identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed -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.			Fractions -add and subtract fractions with the same denominator, and denominators that are multiples of the same number -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 -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 -multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1/4 \times 1/2 = 1/8$] -divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$] -associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $3/8$] -recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.				Geometry - Properties of Shape -recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	Geometry - Properties of Shape -draw 2-D shapes using given dimensions and angles -recognise, describe and build simple 3-D shapes, including making nets -compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons -illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius		Statistics -solve comparison, sum and difference problems using information presented in a line graph -complete, read and interpret information in tables, including timetables -interpret and construct pie charts and line graphs and use these to solve problems -calculate and interpret the mean as an average.		
Foundational fluency Knowledge acquisition	Solve balancing equations with one unknown	Solve balancing equations with two unknown values	Addition of fractions, including mixed numbers	Subtraction of fractions, including mixed numbers	Equivalent fractions	Convert between fractions and decimals	Consolidation		Finding unknown values when rules apply	Interpret data to add several addends	Calculate mean average		
C3 focus area	Unit 11 - ratio and proportion					Unit 12 - deepening solving problems with 2 unknowns	Unit 13 - deepening order of operations	Unit 14 - deepening mean average					
Knowledge acquisition featured in the unit	Number - Multiplication and Division - solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. Ratio and Proportion -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.			Consolidation		SATS	Algebra -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.	Number - Addition, Subtraction Multiplication and Division -solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign -use their knowledge of the order of operations to carry out calculations involving the four operations	Statistics -calculate and interpret the mean as an average.	*Unit 15* Further Application in real life contexts Bespoke inputs Further Investigations Becoming Year 7 Ready		High school transition	Unit 15 continued
Foundational fluency Knowledge acquisition	Consolidate strategies for written and mental methods					Application of FF knowledge in real life context							