St. Mary's Church of England Primary School, High Crompton

Maths Scheme of Work

Reception: Medium Term Maths Plan.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer2
Number	Recognise numerals and count objects to 10. Select numerals to represent a number of objects Count 1-20. Know 1+1=2	Recognise numerals and count irregular amount of objects to 10. Select numeral to match amount. Count 1-10 Know 1+1=2, 2+2=4	Know how many objects we can see and check by counting. Know 'more and less' when comparing two sets of objects. We will find the total number in two groups by counting. We will say the number that is one more We will find one more and one less Learn Its: 5+5=10, 3+3=6	Know how to count an irregular arrangement of 10 objects. Know how many objects we can see and check by counting. Know 'more and less' when comparing two sets of objects. We will find the total number in two groups by counting. We will say the number that is one more We will find one more and one less Learn Its: 3+3=6, 4+4=8	Use addition & subtraction vocabulary when solving problems. Identify own maths problems. Count, order and say one more/less up to 20. Add/subtract single digit numbers, count on and back. Solve problems doubling, halving, sharing Know 2+1=3, 2+3=5	Recognise numerals and count add & subtract vocabulary Count numbers 1-20. Order numbers Double, halve, share 1 more, 1 less Know 2+1=3, 3+2=5
Shape, Space & Measures	Name flat 2D shapes. Use positional language Order familiar events.	Recognise, create and continue patterns	Name 3-D solid shapes. We will select a named shape.	Order two items by weight Order two items by capacity.	Positional language Length and height	Time vocabulary Language associated with money Measure periods of time

CLIC Framework - Reception Term 1

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	1	Actual Counting	1
	Reading Numbers		Counting On	
	Squiggleworth		Counting Multiples	
	CORE Numbers		Count Fourways	
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	1

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien		Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving		Where's Mully?	
	Jigsaw Numbers		Pom's Words	
	x10 & ÷10		Fact Families	

C	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Reception Term 2

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	1	Actual Counting	2, 3, 4, 5
	Reading Numbers	1	Counting On	1
	Squiggleworth		Counting Multiples	
	CORE Numbers	1	Count Fourways	
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	2

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien		Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	1	Where's Mully?	
	Jigsaw Numbers		Pom's Words	
	x10 & ÷10		Fact Families	

C	Progress Drive	Steps
	Addition	1, 2
	Subtraction	1, 2
	Multiplication	
	Division	1

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Reception Term 3

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	2	Actual Counting	6
	Reading Numbers	2	Counting On	2, 3, 4, 5
	Squiggleworth		Counting Multiples	1
	CORE Numbers	1	Count Fourways	
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	3

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	1	Where's Mully?	
	Jigsaw Numbers		Pom's Words	
	x10 & ÷10		Fact Families	

C	Progress Drive	Steps
	Addition	3, 4, 5
	Subtraction	3, 4, 5
	Multiplication	1, 2
	Division	2, 3, 4, 5

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

St. Mary's C.E Primary School Number and Calculation Overview Year 1

Maths topic	NC objective	Big Maths Counting It's Nothing New Calculation and Progress Drives	Other Resources
Counting	•count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number •count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens	Saying Numbers: Step 5 Reading Numbers: Step 4 Count Fourways / Counting Multiples: Steps 1-3 Counting On: Step 1 Actual Counting: Step 4 Core Numbers: Step 2	Little Big Maths: Amounts Compared Bk 1- pg4, 11, 12, 13 Bk 1 –pg 7, 8, 9, 10 Linked to place value TU Bk 1 –pg 5, 6 count in 10's
Place Value			
Representing Number	•identify and represent numbers using objects and pictorial representations including the number line, & use language of: equal to, more than, less than (fewer), most, least •read and write numbers from 1 to 20 in numerals and words •read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs Establish that - means subtract (take away is method). Use inverse to establish link between addition and subtraction. Understand concept of difference.	Addition: Steps 6,7 8-12 Subtraction: Steps 6,7 8-12	

	Understand the effect of adding or subtracting zero.		
Number Facts (+/-)	•given a number, identify one more and one less •represent and use number bonds and related subtraction facts within 20 9+7=16, 16-7=9, 7=16-9	Fact Families: Step 1 Pim The Alien: Step 1	Bk 1 –pg 14, 15
Mental +/-	•add and subtract one-digit and two-digit numbers to 20, including zero		
Written +/-			
Problems +/-	•solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and arrays with the support of the teacher, and missing number problems such as 7 = □ – 9. Use practical contexts and associated terms (put together; add; altogether; total; difference between; distance between; more than; less than)		
Number facts (x/÷)	Doubling and halving numbers 1-10 Counting in twos, fives and tens.		
Mental (x/÷)			
Written (x/÷)			
Problems (x/÷)	•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.	Multiplication: Steps 1-6 Division: Steps 1-11	

	Including operation signs x, - and = Practical application of grouping and sharing to find simple fractions of objects, numbers and quantities eg ½ and ¼ Make connections between arrays, number patterns, and counting in twos, fives and tens.		
Money			
Recognising fractions	•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. Equivalent ½ = 2/4 Counting in halves to 10. Adding ½ to 1/2		
Comparing fractions			
Finding fractions of quantities			
Fraction calculations			
Decimals as fractional amount			
Ordering decimals			
Calculating with decimals			
Percentages			
Fraction problems	Pupils are taught half and quarter as fractions of discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could recognise and find half a length, quantity, set of objects or shape. Pupils connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts		

	of a whole.		
Ratio & Proportion	Simple sequences Make this pattern 2 blue and 1 red. Continue it.		
Algebra	Counting in constant step sizes with different start numbers, forwards and backwards, with 100 sq and bead string. Missing number sentence, balancing either side of the equals sign. Introduce the vocabulary of sequences. Continue PRACTICAL pattern work. One step function machines.		

Year 1: Medium Term Maths Plan (shape, space, measures,)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Shape and Space	Recognise and create repeating patterns and relationships involving shapes. Recognise and name common 2D shapes and 3D solids and recognise these shapes in different orientations and sizes: use them to make patterns. Know that rectangles, triangles, cuboids and pyramids are not always similar to each othe		Describe position, direction and movement and make whole, half and quarter turns. Make turns in both directions and connect turning clockwise with movement on a clock face.		Pupils use the language of position, direction and motion, using positional language.	
Measures	Compare, describe and solve practical problems involving measures. Measure and begin to record lengths and heights; mass/weight; capacity and volume; time, choosing and using suitable uniform non-standard or standard units of measuring Use measuring tools eg rulers, scales etc	Use vocabulary related to time: order days of the week, months and years; read the time to the hour and half hour. Draw the hands on a clock face to show these times.	Recognise and know the value of different denominations of coins and notes.	Sequence events in chronological order using specified language.	Compare, describe and solve practical problems involving measures. Measure and begin to record lengths and heights; mass/weight; capacity and volume; time, choosing and using suitable uniform non-standard or standard units of measuring	

CLIC Framework - Year 1 Term 1

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	3, 4	Actual Counting	✓
	Reading Numbers	3, 4	Counting On	✓
	Squiggleworth		Counting Multiples	2
	CORE Numbers	1	Count Fourways	
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	4

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	1	Where's Mully?	
	Jigsaw Numbers	1	Pom's Words	
	x10 & ÷10		Fact Families	

C	Progress Drive	Steps
	Addition	5
	Subtraction	5
	Multiplication	3, 4
	Division	5

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Year 1 Term 2

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	4	Actual Counting	✓
	Reading Numbers	5	Counting On	✓
	Squiggleworth		Counting Multiples	2
	CORE Numbers	1	Count Fourways	
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	5

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	2 1	Where's Mully?	
	Jigsaw Numbers	1	Pom's Words	
	x10 & ÷10		Fact Families	

C	Progress Drive	Steps
	Addition	6, 7, 8
	Subtraction	6, 7, 8, 9
	Multiplication	4
	Division	6

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Year 1 Term 3

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	5	Actual Counting	✓
	Reading Numbers	5	Counting On	✓
	Squiggleworth	1	Counting Multiples	3
	CORE Numbers	2	Count Fourways	1s, 10s, 2s, 25s
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	6

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	2 | 1 | 1	Where's Mully?	
	Jigsaw Numbers	1	Pom's Words	
	x10 & ÷10		Fact Families	1

C	Progress Drive	Steps
	Addition	9, 10, 11, 12
	Subtraction	10, 11, 12
	Multiplication	5, 6
	Division	7, 8, 9, 10, 11

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

St. Mary's C.E Primary School Number and Calculation Overview Year 2

Maths topic	NC objective	Big Maths: Counting It's Nothing New Calculation Progress Drives	Resources
Counting	•count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	Count Fourways Counting Multiples: Step 4	
Place Value	•recognise the place value of each digit in a two-digit number •compare and order numbers from 0 up to 100; use <, > and = signs •reading and writing 3 digit numbers •round any number to the nearest 10	Squigglesworth Step 1 Core numbers: Step 3	
Representing Number	•identify, represent and estimate numbers using different representations, including the number line •read and write numbers to at least 100 in numerals and in words	Core numbers: Step 3 Reading numbers: Step 4	
Number Facts (+/-)	•use place value and number facts to solve problems recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 e.g 3+7=10 so 30+70=100	Fact families step 2 Pim's addition step 1 Addition Subtraction	
Mental +/-	•add and subtract numbers using concrete objects, pictorial representations, and mentally, including: TU+U, TU+T, TU+TU and U+U+U (with number lines or jottings)	Addition step 19, 20, 23, 24	

	•show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot e.g 5+2+1=2+1+5 •Extend understanding of language to include sum and difference •understand subtraction as taking away or finding the difference	Subtraction Step 18, 25, 27 Fact families Step2	
Written +/-	•Find small differences using number lines		
Problems +/-	•solve problems with addition and subtraction, using concrete, pictorial and abstract representations •recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Addition Subtraction Fact families Step 3, 4	
Number facts (x/÷)	•recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers •Doubling and halving numbers 1-20 •Counting in 3's, 4's, 8's	Count fourways Division Steps 16, 17	
Mental (x/÷)	•calculate mathematical statements for multiplication and division grouping within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs •show that multiplication of two numbers can be done in any order (commutative) e.g 3x5=5x3 and division of one number by another cannot eg 15/3 does not = 3/15	Multiplication Steps 7-9 Division Step 13 Fact families Step 4	
Written (x/÷)	•Introduce the concept of remainders		
Problems (x/÷)	•solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	Division Steps 12-15 Multiplication Steps 7-9	

	•Use a variety of language for multiplication and division •Begin to relate multiplication and division to fractions e.g ½ is the same as divide by 2		
Money	•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		
Recognising fractions	•recognise, find, name and write fractions 1/3, 1/4 , 2/4 and 3/4 of a length, shape, set of objects or quantity		
Comparing fractions			
Finding fractions of quantities			
Fraction calculations	•write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2. •order simple fractions on a numberline •Use <>= with simple fractions		
Decimals as fractional amount			
Ordering decimals	•Counting ½, ¼, 1/3 up to 10 •Add ¼, 1/3 e.g ¼ +2/4 also 1 1/3 +1/3=1 2/3		
Calculating with decimals			
Percentages			
Fraction problems	Practical problem solving + and – fractions e.g pizza, chocolate bars etc •Find simple fractions of amounts e.g ½ of £20		

	•Fractions of simple measures / different 2D shapes eg ¼ 12 cm. Shade 1/3 of this square 2 different ways.		
Ratio & Proportion	•Recognise simple regular patterns and comment on them.		
Algebra	•Recording terms of a 'sequence' •Generate positive and negative sequences •Balance puzzles •Counting games with start numbers and step sizes with support such as 100 square and bead srting. •Understanding 'inverses' •Describing a sequence , term to term, using/understanding times tables as terms of a sequence.		

CLIC Framework - Year 1 Term 1

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	3, 4	Actual Counting	✓
	Reading Numbers	3, 4	Counting On	✓
	Squiggleworth		Counting Multiples	2
	CORE Numbers	1	Count Fourways	
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	4

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	1	Where's Mully?	
	Jigsaw Numbers	1	Pom's Words	
	x10 & ÷10		Fact Families	

C	Progress Drive	Steps
	Addition	5
	Subtraction	5
	Multiplication	3, 4
	Division	5

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Year 1 Term 2

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	4	Actual Counting	✓
	Reading Numbers	5	Counting On	✓
	Squiggleworth		Counting Multiples	2
	CORE Numbers	1	Count Fourways	
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	5

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	2 1	Where's Mully?	
	Jigsaw Numbers	1	Pom's Words	
	x10 & ÷10		Fact Families	

C	Progress Drive	Steps
	Addition	6, 7, 8
	Subtraction	6, 7, 8, 9
	Multiplication	4
	Division	6

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Year 1 Term 3

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	5	Actual Counting	✓
	Reading Numbers	5	Counting On	✓
	Squiggleworth	1	Counting Multiples	3
	CORE Numbers	2	Count Fourways	1s, 10s, 2s, 25s
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	6

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim		Coin Multiplication	
	Doubling & Halving	2 | 1 | 1	Where's Mully?	
	Jigsaw Numbers	1	Pom's Words	
	x10 & ÷10		Fact Families	1

C	Progress Drive	Steps
	Addition	9, 10, 11, 12
	Subtraction	10, 11, 12
	Multiplication	5, 6
	Division	7, 8, 9, 10, 11

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

Year 2 Medium Term Maths Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Fractions			Find one half, one quarter, 2 quarters, three quarters and 1 third of shapes, sets of objects or quantity. Write simple fractions for example ½ of 6 = 3 and the equivalence of 2/4 and ½		Find one half, one quarter and three quarters of sets of objects or quantity. Find one half, one quarter, 2 quarters, three quarters and 1 third of shapes.	
Geometry – properties of shape	Describe patterns and relationships involving shapes. Identify and describe the properties of common 2-D shapes eg number of sides Identify and describe the properties of common 3-D solids, eg number of edges, vertices and faces; compare and sort common 2d and 3d shapes and everyday objects.			Idetify 2d shapes on the surface of 3d shapes;	Identify reflective symmetry in patterns and 2-D shapes and draw lines of symmetry in shapes.	
Geometry – Position and direction	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 3 quarter turns (clockwise and anti clockwise)

Measurement	Read the numbered divisions on a scale and interpret the divisions between them(e.g. on a scale from 0-25 with intervals of 1 shown by only the divisions 0,5,10,15 and 20 numbered) Use units of time (minutes, hours, days) and know the relationship between them; tell and write the time including quarter past/to the hour and draw the hands on a clock face to show these times.; Estimate, compare, order (using <>= (include comparison using multiples e.g twice as wide)) and measure lengths choosing and using standard units m and cm (use standard abbreviations) and suitable measuring instruments. Read the numbered divisions on a scale and interpret the divisions between them(e.g. on a scale from 0-25 with intervals of 1 shown by only the divisions 0,5,10,15 and 20 numbered) Use a ruler to draw and measure lines to the nearest cm	Estimate, compare, order (using <>=(include comparison using multiples e.g twice as wide)) and measure weights, choosing and using standard units (use standard abbreviations) g and kg and suitable measuring instruments. Read the numbered divisions on a scale and interpret the divisions between them(e.g. on a scale from 0-25 with intervals of 1 shown by only the divisions 0,5,10,15 and 20 numbered) Recognise and use symbols for pounds £ and pence p; combine amounts to make a particular value Find different combinations of coins that = the same amount of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	Estimate, compare, order (using <>=(include comparison using multiples e.g twice as wide)) and measure weights, choosing and using standard units (g kg) (use standard abbreviations) and suitable measuring instruments. Read the numbered divisions on a scale and interpret the divisions between them(e.g. on a scale from 0-25 with intervals of 1 shown by only the divisions 0,5,10,15 and 20 numbered) tell and write the time to 5 minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.;	Estimate and measure temperature, choosing and using standard units degrees c (use standard abbreviations) and suitable measuring instruments. Recognise and use symbols for pounds £ and pence p; combine amounts to make a particular value Find different combinations of coins that = the same amount of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	Estimate, compare , order (using <>=(include comparison using multiples e.g twice as wide)) and measure capacities, choosing and using standard units (ml and l) and suitable measuring instruments. Read the numbered divisions on a scale and interpret the divisions between them(e.g. on a scale from 0-25 with intervals of 1 shown by only the divisions 0,5,10,15 and 20 numbered)	identify the time interval, including those that cross the hour. Compare and sequence intervals of time.

Statistics	• 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.

CLIC Framework - Year 2 Term 1

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	✓	Actual Counting	✓
	Reading Numbers	5	Counting On	✓
	Squiggleworth	1	Counting Multiples	3
	CORE Numbers	2	Count Fourways	100s
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	7

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim	1	Coin Multiplication	
	Doubling & Halving	3 2 2	Where's Mully?	
	Jigsaw Numbers	1	Pom's Words	
	x10 & ÷10		Fact Families	2

C	Progress Drive	Steps
	Addition	13, 14, 15
	Subtraction	13, 14, 15
	Multiplication	7, 8
	Division	12

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Year 2 Term 2

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	✓	Actual Counting	✓
	Reading Numbers	6	Counting On	✓
	Squiggleworth	1	Counting Multiples	3
	CORE Numbers	2	Count Fourways	50s, 500s, 5000s, 1/2s
	Counting Skills	✓	Counting Along	

L	The Learn Its Schedule
	8

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	
	Adding with Pim	2	Coin Multiplication	
	Doubling & Halving	3 2 2	Where's Mully?	
	Jigsaw Numbers	2	Pom's Words	
	x10 & ÷10		Fact Families	2

C	Progress Drive	Steps
	Addition	16, 17, 18, 19
	Subtraction	16, 17, 18, 19
	Multiplication	8
	Division	13, 14, 15

Column Methods	Progress Drive	Steps
	Addition	
	Subtraction	
	Multiplication	
	Division	

CLIC Framework - Year 2 Term 3

C

Progress Drive	Steps	Progress Drive	Steps
Saying Numbers	✓	Actual Counting	✓
Reading Numbers	6	Counting On	✓
Squiggleworth	1	Counting Multiples	4
CORE Numbers	3	Count Fourways	20s, 200s, 2000s, 1/4s
Counting Skills	✓	Counting Along	1

L

The Learn Its Schedule
9

I

Progress Drive	Steps	Progress Drive	Steps
Pim the Alien	1	Smile Multiplication	
Adding with Pim	3	Coin Multiplication	1, 2
Doubling & Halving	3 3 3	Where's Mully?	
Jigsaw Numbers	3	Pom's Words	
x10 & ÷10	1 1	Fact Families	3, 4

C

Progress Drive	Steps
Addition	20, 21, 22, 23, 24
Subtraction	20 - 27
Multiplication	9
Division	16, 17

Column Methods

Progress Drive	Steps
Addition	1
Subtraction	1
Multiplication	
Division	

St. Mary's C.E Primary School Number and Calculation Overview Year 3

Maths topic	NC objective	Big Maths Counting It's Nothing New Calculation and Progress Drives	Resources
Counting	•count from 0 in multiples of 4, 8, 50 and 100 *find 10 or 100 more or less than a given number	Count Fourways Counting multiples: Steps 5,6	
Place Value	•recognise the place value of each digit in a three-digit number •compare and order numbers up to 1000 *round any number to the nearest 100	Squiggleworth: Step 2 Core numbers: Step 4	
Representing Number	•identify, represent and estimate numbers using different representations •read and write numbers up to 1000 in numerals and in words *read Roman numerals to 12 and recognise the numerals for 50 and 100	Core numbers: Step 4 Reading Numbers steps 5,6	
Practical Problem Solving	Solve number problems and practical problems using above ideas.		
Number Facts (+/-)	*Complements to 100		
Mental +/-	·add and subtract numbers mentally,	*Addition Step 20	

	including: *HTU+U *HTU+T *HTU+H	Subtraction: Step 19 *Addition Step 26 Subtraction Step 29 *Addition Step 28 Subtraction Step 29	
Written +/-	•add and subtract numbers with up to three digits, using formal written methods including expanded method of columnar addition and subtraction where appropriate i.e only use where a mental method or jotting is **not** more efficient.	Column Addition: Step 5 Column Subtraction: Step 5	
Problems +/-	•estimate the answer to a calculation and use inverse operations to check answers e.g using rounding •solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction * solve problems involving addition, subtraction, multiplication and division, e.g If I double a number and add 6 and the answer is 18, what number did I start with?	Core Numbers Fact Families Pim the Alien Steps 1 -3 Addition Subtraction	
Number facts (x/÷)	•recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables *doubling facts of multiples of 10 up to double 100 *counting in 6s, 7s, 9s, 11s, 12s *connect 2, 4 and 8x tables through		

	doubling * understanding remainders in the context of division		
Mental (x/÷)	•write, estimate 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 methods		
Written (x/÷)	•Progress to formal written methods calculations as above		
Problems (x/÷)	•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. *understand scaling a number by a scale factor of 3 as making the number (or measurement) 3 times larger. * link scaling to the understanding of multiplication e.g 6+6+6 = 6 x 3		
Money	•add and subtract amounts of money to give change, using both £ and p in practical contexts *division and multiplication of money		
Recognising fractions	•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 *read, write order and compare numbers up to one decimal place (money		

	link) *counting in 1/5, 1/10,1/100		
Comparing fractions	•compare and order unit fractions, and fractions with the same denominators •recognise and show, using diagrams, equivalent fractions with small denominators * add in 1/5, 1/6, 2/3,3/5		
Finding fractions of quantities	•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 (understand what they are) with small denominators *decimals- link to money1.e tenths/ hundredths *Link to division e.g 15 divided by 3 is 15/3 * ongoing < > =		
Fraction calculations	•add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7] *also under 10 *sharing and division link *complements of 1 to 1dp (2dp with money) * solving problems with all of the above and simple measures(cm/m, kg/g, l/ml and money) * find unit fractions of amounts.		
Decimals as fractional amount			
Ordering decimals			

Calculating with decimals			
Percentages			
Fraction problems	·solve problems using all fraction knowledge		
Ratio & Proportion	*Solve problems involving similar shapes where the scale factor is known * Recognise more complex regular (and simple irregular) patterns e.g. 2 red, 3 green, 4 blue and comment on them RRGGGBBBB * Next one RGGRGRGGRG 3 green 2 red		
Algebra	* Counting in constant steps, related to repeated addition and times tables. *Two step function machines Build linear sequences practically with cubes * Growing linear patterns * Extend balance puzzles e.g shapes as numbers, more than one variable * generate simple formulae e.g with simple shapes & Taktiles * Concept of algebraic notation e.g practical missing number envelopes.		

Year 3 Maths Yearly Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Shape and Space	Draw 2D shapes and make 3D shapes using modelling materials. Recognise angles as a property of a shape Recognise 3D shapes in different orientations and describe them.				Recognise angles as a property of a shape or a description of a turn Identify right angles,,recognise that two right angles make half a turn, three make three quarters of aturn and four a complete turn Identify whether an angle is greater or less than a right angle Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	
Measures		<u>Length</u> Measure using appropriate tools and units- progressing to using wider range of measures, including mixed units.e.g.1m 200cm compare, add and subtract length (m/cm/mm), Measure the perimeter of simple 2D shapes Solve problems that involve simple measures The comparisons of measures includes scaling by integers(e.g. a given quantity is twice as long or 5 times	<u>Time</u> Know the number of seconds in a minute and number of days in each month, year and leap year. Tell and write time with increasing accuracy from analogue clock including Roman numerals I to IXX, and 12 and 24 hour clocks (a.m and p.m) Estimate and read time with increasing accuracy to the nearest minute; record and compare time in seconds ,	<u>Weight</u> Measure using appropriate tools and units- progressing to using wider range of measures, including mixed units.e.g.1kg 200g compare, add and subtract mass (kg/g), Solve problems that involve simple measures The comparisons of measures includes scaling by integers(e.g. a given quantity is twice as long or 5 times as high). This connects to multiplication	<u>Time</u> Compare the duration of events (e.g calculate the time taken by particular events or tasks)	<u>Capacity</u> Measure using appropriate tools and units- progressing to using wider range of measures, including mixed units.e.g.1l,200ml compare, add and subtract volume/capacity (l/ml) Solve problems that involve simple measures The comparisons of measures includes scaling by integers(e.g. a given quantity is twice as long or 5 times as high). This

		as high). This connects to multiplication Find unit fractions of amounts e.g ½, 1/3, ¼ of 12 metres	minutes and hours; use vocabulary sch as o'clock, a.m/p.m., morning, afternoon,noon and midnight.	Find unit fractions of amounts e.g ½, 1/3, ¼ of 12 kg		connects to multiplication Find unit fractions of amounts e.g ½, 1/3, ¼ of 12 litres
Data handling	Interpret and present data using bar charts, pictograms and tables. Solve one step and two step questions (e.g. How many more? How many fewer?) using information presented in scaled bar charts, pictograms and tables.		Interpret and present data using bar charts, pictograms and tables. Solve one step and two step questions (e.g. How many more? How many fewer?) using information presented in scaled bar charts, pictograms and tables.	.	Interpret and present data using bar charts, pictograms and tables. Solve one step and two step questions (e.g. How many more? How many fewer?) using information presented in scaled bar charts, pictograms and tables.	

CLIC Framework - Year 3 Term 1

C

Progress Drive	Steps	Progress Drive	Steps
Saying Numbers	✓	Actual Counting	✓
Reading Numbers	6	Counting On	✓
Squiggleworth	2 (i)	Counting Multiples	4
CORE Numbers	3	Count Fourways	20s, 200s, 2000s, 1/4s
Counting Skills	✓	Counting Along	1

L

The Learn Its Schedule
10

I

Progress Drive	Steps	Progress Drive	Steps
Pim the Alien	1	Smile Multiplication	
Adding with Pim	3	Coin Multiplication	2
Doubling & Halving	3 3 3	Where's Mully?	
Jigsaw Numbers	3	Pom's Words	
x10 & ÷10	1 1	Fact Families	4

C

Progress Drive	Steps
Addition	25
Subtraction	28
Multiplication	9
Division	17

Column Methods

Progress Drive	Steps
Addition	2
Subtraction	2
Multiplication	
Division	

CLIC Framework - Year 3 Term 2

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	✓	Actual Counting	✓
	Reading Numbers	6	Counting On	✓
	Squiggleworth	2 (i)	Counting Multiples	5
	CORE Numbers	3	Count Fourways	1000s
	Counting Skills	✓	Counting Along	2

L	The Learn Its Schedule
	11

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	1	Smile Multiplication	1, 2
	Adding with Pim	3	Coin Multiplication	3
	Doubling & Halving	4 4 3	Where's Mully?	
	Jigsaw Numbers	3	Pom's Words	
	x10 & ÷10	1 1	Fact Families	4

C	Progress Drive	Steps
	Addition	26, 27
	Subtraction	28
	Multiplication	10
	Division	17

Column Methods	Progress Drive	Steps
	Addition	3
	Subtraction	3, 4
	Multiplication	
	Division	

CLIC Framework - Year 3 Term 3

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	✓	Actual Counting	✓
	Reading Numbers	6	Counting On	✓
	Squiggleworth	2 (ii), 3	Counting Multiples	6
	CORE Numbers	4	Count Fourways	1/10s, 0.1s
	Counting Skills	✓	Counting Along	2

L	The Learn Its Schedule
	12

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	2, 3	Smile Multiplication	3
	Adding with Pim	3	Coin Multiplication	3
	Doubling & Halving	5 5 3	Where's Mully?	
	Jigsaw Numbers	3	Pom's Words	
	x10 & ÷10	1 1	Fact Families	5

C	Progress Drive	Steps
	Addition	28
	Subtraction	29
	Multiplication	11
	Division	18, 19

Column Methods	Progress Drive	Steps
	Addition	4, 5, 6
	Subtraction	5
	Multiplication	1
	Division	1

St. Mary's C.E Primary School Number and Calculation Overview Year 4

Maths topic	NC objective	Big Maths Counting It's Nothing New Calculation and Progress Drives	Resources
Counting	•count in multiples of 6, 7, 9, 25 and 1000 •find 1000 more or less than a given number count backwards through zero to include negative numbers	Count Fourways Counting Multiples: Steps 7-9 Count Fourways Core Numbers Count Fourways	
Place Value	•recognise the place value of each digit in a four-digit number •order and compare numbers beyond 1000 •round any number to the nearest 10, 100 or 1000	Squiggleworth: Step 2 Core Numbers: Step 5 Core Numbers: Step 5	
Representing Number	•identify, represent and estimate numbers using different representations •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	Core Numbers: Step 5 Covered cross-curricular through Romans topic	
Practical Problem Solving	Using above skills with increasingly large positive numbers	Counting Along Pim The Alien: Steps 1-3 Addition – Problem Solving Best Method	

		Subtraction - Problem Solving Best Method	
Number Facts (+/-)	Complements to 1000		
Mental +/-	Continue to add and subtract mentally using jottings if appropriate		
Written +/-	•add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction (+money/decomals) where appropriate Only use when a mental method or jotting is not more efficient	Column Method: Addition Step 8 Column Method: Subtraction Step 7	
Problems +/-	•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	Core Numbers Fact Families Pim The Alien: Steps 1-3 Addition – Problem Solving Best Method Subtraction - Problem Solving Best Method	
Number facts (x/÷)	•recall multiplication and division facts for multiplication tables up to 12 × 12 Doubling facts of multiples of 100/1000 Doubling multiples of 10 beyond 100	Learn Its: Steps 13-15	
Mental (x/÷)	•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 e.g. 18x6=2x9x2x3=9x3x2x2=108 Interpret remainders, rounding up or down depending on context	Pom's Words: Step 2 Calculation: Multiplication Calculation: Division Calculation: Multiplication: Step 12 Calculation: Multiplication: Step 11	

	Use mental arithmetic strategies when appropriate e,g, partitioning, chunking and jottings Doubling numbers 1-100 as a strategy Multiply and divide whole numbers and decimals by 10 and 100		
Written (x/÷)	• Estimate and multiply two-digit and three-digit numbers by a one-digit number using formal written layout, including grid method if appropriate Short division of TU ÷U and HTU÷U	**Column Method:** Multiplication: Steps 2,3	
Problems (x/÷)	•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	Pim the Alien: Steps 1-3 Coin Multiplication Addition Multiplication	
Money	Addition and subtraction money/decimals where appropriate using mental or written methods		
Recognising fractions	•count up and down in hundredths; •recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Number line		
Comparing fractions	•recognise and show, using diagrams, families of common equivalent fractions		
Finding fractions of quantities	•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		
Fraction calculations	•add and subtract fractions with the same denominator beyond 1 whole and converting to a mixed number		
Decimals as fractional amount	•recognise and write decimal equivalents of any number of tenths or hundredths		

	•recognise and write decimal equivalents to ¼, ½ and ¾ 1/5 •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 Sharing and division link Complements of 1 to 1 and 2 d.p. e.g. 0.8 + 0.2 = 1.0, 0.83 + 0.17 = 1.00		
Ordering decimals	•round decimals with one decimal place to the nearest whole number •compare numbers with the same number of decimal places up to two decimal places Ongoing <>= Read, write, order and compare numbers with up to 2 dp (3dp in measures)		
Calculating with decimals	Complements of 1 to 1 and 2dp e.g. 0.8 + 0.2 = 1, 0.83 and 0.17 = 1.00		
Percentages			
Fraction problems	•solve simple measure and money problems involving fractions and decimals to two decimal places (3dp with measures). Find both unit and non-unit fractions of amounts e.g. ½ of 24, 3/8 of £24		
Ratio & Proportion	Solve problems involving similar shapes where the scale factor is known Solve simple problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts e.g. I use 3l of red and 1l of		

	white paint to make 4l of pink. How many paint tubs do I need for 12l of pink?		
Algebra	Use of a constant function on a calculator. e.g inputting x to find y Generating a negative sequence beyond zero. Plotting sequences e.g x tables in +ve quadrant Line graphs of linear sequences in context Simple formulae related to shape e.g perimeter and area of squares and rectangles and compound shapes Balance puzzles with symbols		

Year 4 :Medium Term Maths Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Shape and Space	Compare and classify geometric shapes, including quadrilaterals and triangles based on their properties and sizes, Identify lines of symmetry in 2d shapes presented in different orientations Complete a simple symmetric figure with respect to a specific line of symmetry. Reproduce shape according to scale factor.	Recognise horizontal and vertical lines. Use the 8 compass points to describe direction and describe and identify the position of a square on a grid of squares – Do in Geography. Describe positions on a 2D 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.		Measure and calculate the perimeter of a rectilinear figure (Including squares) in cm and m. Find the area of rectilinear shapes drawn on a square grid by counting squares.- in cm and m. Relate areas to arrays and multiplication. Extension: perimeter can be expressed algebraically as 2(a+b) where a and b are the dimensions in the same unit.	Identify acute and obtuse angles and compare and order angles up to two right angles by size.	
Measures	Length To estimate, compare and calculate different measures, including money in pounds and pence. To convert between different units of measure (for example, km to m or hour to minute) Interpret intervals and divisions on partially numbered scales and record readings accurately where appropriate to the nearest tenth of a unit. Compare the impact of representations where scales have intervals of differing step size. Recognise the equivalence between decimal and fraction forms of one half, quarters, tenths and hundredths.		Time Read, write and convert time between analogue and digital 12 and 24 hour clocks. Solve one and two step problems involving measures including time involving converting from hours to minutes; minutes to seconds: years to months and weeks to days. To convert between different units of measure (for example, km to m or hour to minute)		Weight To estimate, compare and calculate different measures, including money in pounds and pence. To convert between different units of measure (for example, km to m or hour to minute) Interpret intervals and divisions on partially numbered scales and record readings accurately where appropriate to the nearest tenth of a unit. Compare the impact of representations where scales have intervals of differing step size. Recognise the equivalence between decimal and fraction forms of one half, quarters, tenths and hundredths.	Capacity To estimate, compare and calculate different measures, including money in pounds and pence. To convert between different units of measure (for example, km to m or hour to minute. Interpret intervals and divisions on partially numbered scales and record readings accurately where appropriate to the nearest tenth of a unit. Compare the impact of representations where scales have intervals of differing step size. Recognise the equivalence between decimal and fraction forms of one half, quarters, tenths and hundredths.

	Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position one-place and two-place decimals on a number line Count up and down in hundredths, recognise that hundredths arise when dividing an object by 1/100 and tenths by 10.				Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position one-place and two-place decimals on a number line Count up and down in hundredths, recognise that hundredths arise when dividing an object by 1/100 and tenths by 10.	Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position one-place and two-place decimals on a number line Count up and down in hundredths, recognise that hundredths arise when dividing an object by 1/100 and tenths by 10.
Data handling	Data Handling Suggest a line of enquiry and the strategy needed to follow it. Collect, organise and interpret selected information to find answers. Answer a question by identifying what data to collect, organise, present analyse and interpret the data using ICT where appropriate. 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.					

CLIC Framework - Year 4 Term 1

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	✓	Actual Counting	✓
	Reading Numbers	6	Counting On	✓
	Squiggleworth	4	Counting Multiples	7, 8, 9
	CORE Numbers	5	Count Fourways	25s, 250s, 2500s
	Counting Skills	✓	Counting Along	3

L	The Learn Its Schedule
	13

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	✓	Smile Multiplication	3
	Adding with Pim	3	Coin Multiplication	3
	Doubling & Halving	✓ ✓ 3	Where's Mully?	
	Jigsaw Numbers	4	Pom's Words	
	x10 & ÷10	2 1	Fact Families	✓

C	Progress Drive	Steps
	Addition	28
	Subtraction	29
	Multiplication	12, 13
	Division	19

Column Methods	Progress Drive	Steps
	Addition	6
	Subtraction	6
	Multiplication	1
	Division	2

CLIC Framework - Year 4 Term 2

C

Progress Drive	Steps	Progress Drive	Steps
Saying Numbers	✓	Actual Counting	✓
Reading Numbers	6	Counting On	✓
Squiggleworth	4	Counting Multiples	✓
CORE Numbers	6	Count Fourways	0.2s, 0.5s, 0.25s
Counting Skills	✓	Counting Along	4

L

The Learn Its Schedule
14

I

Progress Drive	Steps	Progress Drive	Steps
Pim the Alien	✓	Smile Multiplication	3
Adding with Pim	4	Coin Multiplication	4
Doubling & Halving	✓ ✓ 4	Where's Mully?	1
Jigsaw Numbers	4	Pom's Words	
x10 & ÷10	2 2	Fact Families	✓

C

Progress Drive	Steps
Addition	29
Subtraction	29
Multiplication	14
Division	19

Column Methods

Progress Drive	Steps
Addition	7
Subtraction	6
Multiplication	2
Division	2

CLIC Framework - Year 4 Term 3

C

Progress Drive	Steps	Progress Drive	Steps
Saying Numbers	✓	Actual Counting	✓
Reading Numbers	6	Counting On	✓
Squiggleworth	4	Counting Multiples	✓
CORE Numbers	7	Count Fourways	1/5s
Counting Skills	✓	Counting Along	4

L

The Learn Its Schedule
15

I

Progress Drive	Steps	Progress Drive	Steps
Pim the Alien	✓	Smile Multiplication	3
Adding with Pim	4	Coin Multiplication	4
Doubling & Halving	✓ ✓ 5,6	Where's Mully?	1
Jigsaw Numbers	4	Pom's Words	1, 2
x10 & ÷10	2 2	Fact Families	✓

C

Progress Drive	Steps
Addition	30, 31
Subtraction	30
Multiplication	14
Division	20, 21, 22, 23

Column Methods

Progress Drive	Steps
Addition	8
Subtraction	7
Multiplication	3
Division	3, 4, 5

St. Mary's C.E Primary School Number and Calculation Overview Year 5

Maths topic	NC objective	Big Maths Counting It's Nothing New Calculation and Progress Drives	Resources
Counting	•count forwards or backwards in steps of powers of 10 for any given number up to 1000000 •interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	Count fourways Count fourways Count along	Gordon's capacity scales
Place Value	read, write, order and compare numbers up to 1 000 000 and determine the value of each digit •round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 * round decimals with 2 decimal places to the nearest whole number and to one decimal place	Counting: reading numbers step7-9 Counting: core numbers step 9 Counting: core numbers step 9	Gordon's ITPs PV chart-moving
Representing Number	read Roman numerals to 1000 (M) and recognise years written in Roman numerals •recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	Outer numeracy Pom's words:step3	
Practical Problem Solving	Solve number problems & practical problems that involve all of the above Use all four operations to solve problems involving measure (eg for mass, volume, money) using decimal notation including scaling.	Counting: counting along It's nothing new: Pim Steps 1-3 Calculation: addition Calculation:subtraction	

Number Facts (+/-)	Compliments of decimals to one whole		
Mental +/-	add and subtract numbers mentally with increasingly large numbers	Calculation:addition step38 : subtraction step 36	
Written +/-	add and subtract whole numbers with more than 4 digits(and decimals up to 3DP) , including using formal written methods	Column methods:addition step 10 :subtraction step 8	
Problems +/-	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy (including use of brackets) •solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why (including decimals)	Counting: core numbers It's nothing new: Pim Steps 1- Calculation:addition :subtraction	
Number facts (x/÷)	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	Pom's words:steps 1,2 Pom's words:step 4 Composite numbers – outer numeracy Pom's words: step 4	
Mental (x/÷)	multiply and divide numbers mentally drawing upon known facts •multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 . Use mental arithmetic strategies when appropriate eg. Partitioning, chunking, jottings	It's nothing new: multiplying & dividing by 10,100, 1000 Multiplication: step 15 Division: steps 24-27	
Written (x/÷)	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method (including grid), including long multiplication for two-digit numbers •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	Column methods: multiplication step 4-7	

	. Express remainders in different ways eg. 98/4= 24r2=24 ½=24.5	Division: step 7	
Problems (x/÷)	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes •solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign •solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Pom's words: step 2 Calculation: intro Outer numeracy	
Money			
Recognising fractions	•recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number		
Comparing fractions	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		
Finding fractions of quantities	Find fractions using division (EG 1/100 OF 5KG) And percentages of numbers and quantities (eg 10%, 5%, 15% of £80)		
Fraction calculations	add and subtract fractions with the same denominator and denominators that are multiples of the same number •multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams . multiply and divide whole numbers and decimals by 10 and 100, giving answers up to two decimal places		
Decimals as fractional amount	•read and write decimal numbers as fractions		
Ordering decimals	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 . round decimals with 2 DP places to the nearest whole number & to one DP.		
Calculating with decimals			
Percentages	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, plus FDP equivalence		
Fraction problems	•solve problems involving number up to three decimal places . Find fractions and percentages of amounts •solve problems which require knowing percentage and decimal equivalents of ½ , ¼ , 1/5 , 2/5 , ¾ ,3/5 4/5 and those fractions with a denominator of a multiple of 10 or 25		
Ratio & Proportion	. solve simple problems involving similar shapes where the scale factor is known or can be found . solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts EG: in a class there are 30 children. For every 3 boys there are 2 girls. How many boys are there? .Problems: eg altering a recipe from 2 to 6 people. . solve problems involving the calculation of % -eg 10% 25% 40% 50% 75%		
Algebra	. extended balance & missing number puzzles . counting and describing non-linear sequences: eg. Square numbers, triangular numbers, Fibonacci sequences. . line graphs in four quadrants – including finding co-ordinates of a line given the 'rule' position to term . problem solving with line graphs and sequences.		

Year 5 Maths Yearly Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Ongoing	**Use efficient written methods to add and subtract whole numbers and decimals with up to 2 places.** **Use understanding of place value to multiply and divide whole numbers and decimals by 10,100 or 1000.** **Refine and use efficient written methods to multiply and divide HTUxU, TUxTU, U.txU and HTU÷U** Count on from any given number in whole number and decimal steps, extending beyond zero when counting backwards: relate the numbers to their position on a number line. **Explain what each digit represents in whole numbers and decimals with up to 2 places, and partition, round and order these numbers.**					
Geometry	• Read and plot coordinates in the first quadrant;	• Explore patterns, properties and relationships and propose a general statement involving numbers or shapes; identify examples for which the statement is true or false.	• Identify, visualise and describe properties of rectangles, triangles, regular polygons and 3-D solids; use knowledge of properties to draw 2-D shapes and identify and draw nets of 3-D shapes • ; draw the position of a shape after a reflection or translation –use appropriate language and know the shape has not changed.	Use properties of rectangles to deduce related facts and find missing lengths and angles.	Estimate, draw and measure acute and obtuse angles using an angle measurer or protractor to a suitable degree of accuracy; Calculate angles in a straight line Identify – angles at a point and one whole turn (total 360o) Angles at a point on a straight line and ½ turn (180o) Other multiples of 90o	• 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 (continue to use 2D grid, coordinates in first quadrant, reflection in lines parallel to axes)
Measures	**TIME** Solve problems involving converting between units of time.	**Length** • Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to smaller units using decimals to one place (e.g. change 2.6 kg to 2600g) • Convert between different units of metric measure (eg km and m, cm & mm, g & kg, l and ml) • Measure and calculate the perimeter of composite rectilinear shapes – including using the relations of perimeter to	**Weight/capacity/area** • use the formula for the area of a rectangle to calculate the rectangle's area. • Calculate & compare the area of squares and rectangles including using std. units sq. cm (cm^2) and sq. metres(m^2) and estimate the area of irregular shape. • Interpret a reading that lies between two	Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to smaller units using decimals to one place (e.g. change 2.6 kg to 2600g) Understand and use equivalences between metric units and common imperial units such as inches pounds, pints.	Use all four operations to solve problems involving measure (length, mass, volume, money) using decimal notation including scaling.	

		find unknown lengths in cm and m.	unnumbered divisions on a scale • Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to smaller units using decimals to one place (e.g. change 2.6 kg to 2600g) • Calculate the area from scale drawings using given measurements. • Estimate volume (eg using 1cm^3 blocks to build cubiods			
Statistics	Complete, read & interpret info in tables, including timetables. Solve comparison, sum and difference problems using information presented in a line graph.					

CLIC Framework - Year 5 Term 1

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	✓	Actual Counting	✓
	Reading Numbers	7, 8, 9	Counting On	✓
	Squiggleworth	4	Counting Multiples	✓
	CORE Numbers	7	Count Fourways	-1s
	Counting Skills	✓	Counting Along	4

L	The Learn Its Schedule
	✓

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	✓	Smile Multiplication	4
	Adding with Pim	5	Coin Multiplication	4
	Doubling & Halving	✓ ✓ ✓	Where's Mully?	2
	Jigsaw Numbers	5	Pom's Words	2
	x10 & ÷10	3 3	Fact Families	✓

C	Progress Drive	Steps
	Addition	32, 33
	Subtraction	31
	Multiplication	14
	Division	24, 25

Column Methods	Progress Drive	Steps
	Addition	8
	Subtraction	7
	Multiplication	4
	Division	5

CLIC Framework - Year 5 Term 2

C	Progress Drive	Steps	Progress Drive	Steps
	Saying Numbers	✓	Actual Counting	✓
	Reading Numbers	10, 11	Counting On	✓
	Squiggleworth	4	Counting Multiples	✓
	CORE Numbers	7	Count Fourways	-2s, -5s
	Counting Skills	✓	Counting Along	5

L	The Learn Its Schedule
	✓

I	Progress Drive	Steps	Progress Drive	Steps
	Pim the Alien	✓	Smile Multiplication	5
	Adding with Pim	✓	Coin Multiplication	5
	Doubling & Halving	✓ ✓ ✓	Where's Mully?	3
	Jigsaw Numbers	✓	Pom's Words	3
	x10 & ÷10	4 4	Fact Families	✓

C	Progress Drive	Steps
	Addition	34, 35
	Subtraction	32, 33
	Multiplication	15, 16
	Division	26, 27

Column Methods	Progress Drive	Steps
	Addition	9
	Subtraction	8
	Multiplication	5
	Division	6

CLIC Framework - Year 5 Term 3

C

Progress Drive	Steps	Progress Drive	Steps
Saying Numbers	✓	Actual Counting	✓
Reading Numbers	✓	Counting On	✓
Squiggleworth	5	Counting Multiples	✓
CORE Numbers	8, 9	Count Fourways	-25s
Counting Skills	✓	Counting Along	6

L

The Learn Its Schedule
✓

I

Progress Drive	Steps	Progress Drive	Steps
Pim the Alien	✓	Smile Multiplication	✓
Adding with Pim	✓	Coin Multiplication	✓
Doubling & Halving	✓ ✓ ✓	Where's Mully?	4
Jigsaw Numbers	✓	Pom's Words	4
x10 & ÷10	5 5	Fact Families	✓

C

Progress Drive	Steps
Addition	36, 37, 38
Subtraction	34, 35, 36
Multiplication	16
Division	28, 29, 30, 31

Column Methods

Progress Drive	Steps
Addition	10
Subtraction	8
Multiplication	6
Division	7

St. Mary's C.E Primary School Number and Calculation Overview Year 6

Maths topic	NC objective	Big Maths Counting It's Nothing New Calculation Progress Drives	Resources
Counting	•use negative numbers in context, and calculate intervals across zero (recurring decimals Rounding recurring decimals to 1, 2, 3 dp	Counting: Counting Along: Step 7	
Place Value	•read, write, order and compare numbers up to 10 000 000 and determine the value of each digit •round any whole number to a required degree of accuracy	Counting: Reading numbers: step 10 Counting: Core Numbers: Step 9 Counting: Core Numbers: Step 9	
Representing Number			
Number Facts (+/-)	(Complements to 100 to 2d.p)		
Mental +/-	•perform mental calculations, including with mixed operations and large numbers	Calculation: Addition Calculation: Subtraction	
Written +/-	(add and subtract any set of whole numbers and decimals using an appropriate written method.		
Problems +/-	•solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why (including fractions, decimals and percentages) •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	Counting: counting along It's Nothing New: Pim the Alien: Steps 1,3 Calculation: Addition Calculation: Subtraction	
Number facts (x/÷)	•identify common factors, common	It's Nothing New: Pom's words: steps 1-	

	multiples and prime numbers (finding prime factors of 2 digit numbers, and testing for prime numbers beyond 100	4	
Mental (x/÷)	•perform mental calculations, including with mixed operations and large numbers (use mental arithmetic strategies when appropriate e.g. partitioning, chunking and jottings.		
Written (x/÷)	•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 context	Column Method: Multiplication Step 7 Column Method: Division: Step 9	
Problems (x/÷)	•use their knowledge of the order of operations to carry out calculations involving the four operations (introduce brackets and how this affects calculations) **•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	Outer Numeracy Counting: counting along It's Nothing New: Pim the Alien: Steps 1-3 Counting: Core Numbers	
Money			
Recognising fractions	Recall and use equivalences between		

	simple fractions, decimals and percentages, including in different contexts. (halves, quarters, thirds , fifth, eightths, tenths and explore sixths, ninths and elevenths)		
Comparing fractions	•use common factors to simplify fractions •use common multiples to express fractions in the same denomination •compare and order fractions, including fractions > 1		
Finding fractions of quantities			
Fraction calculations	•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 •divide proper fractions by whole numbers		
Decimals as fractional amount	•associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction •identify the value of each digit in numbers given to three decimal places		
Ordering decimals			
Calculating with decimals	•multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places •multiply one-digit number with up to two decimal places by whole numbers •use written division methods in cases where the answer has up to two decimal places		
Percentages	•solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and		

	the use of percentages for comparison		
Fraction problems	•solve problems which require answers to be rounded to specified degrees of accuracy •recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.		
Ratio & 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 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.		
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.		

Year 6 : Medium Term Maths Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Fractions, decimals, percentages	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit round any whole number to a required degree of accuracy use negative numbers in context, and calculate intervals across zero solve number and practical problems that involve all of the above. solve problems which require answers to be rounded to specified degrees of accuracy 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 use written division methods in cases where		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 [f o r e x a m p l e , 41 × 21 = 81] divide proper fractions by whole numbers [for example, 31 ÷ 2 = 61] associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 38] recall and use equivalences between simple fractions,	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.	ratio solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.	

	the answer has up to two decimal places		decimals and percentages, including in different contexts. solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison			
Shape and Space	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	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 recognise that shapes with the same areas can have different perimeters and vice versa		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.		

		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].				
Measures					solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places convert between miles and kilometres	

Data handling	interpret and construct pie charts and line graphs and use these to solve problems	calculate and interpret the mean as an average.				

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
- identify common factors, common multiples and prime numbers
- use their knowledge of the order of operations to carry out calculations involving the four operations
- 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 efficient written methods to add and subtract integers and decimals, to multiply and divide integers and decimals by a one-digit integer, and to multiply two-digit and three-digit integers by a two-digit integer

Calculate mentally with integers and decimals: U.t ± U.t, TU x U, TU ÷ U, U.t x U, U.t ÷ U

CLIC Framework - Year 6 Term 1

C

Progress Drive	Steps	Progress Drive	Steps
Saying Numbers	✓	Actual Counting	✓
Reading Numbers	✓	Counting On	✓
Squiggleworth	✓	Counting Multiples	✓
CORE Numbers	10	Count Fourways	✓
Counting Skills	✓	Counting Along	7

L

The Learn Its Schedule
✓

I

Progress Drive	Steps	Progress Drive	Steps
Pim the Alien	✓	Smile Multiplication	✓
Adding with Pim	✓	Coin Multiplication	✓
Doubling & Halving	✓ ✓ ✓	Where's Mully?	5
Jigsaw Numbers	✓	Pom's Words	✓
x10 & ÷10	✓ ✓	Fact Families	✓

C

Progress Drive	Steps
Addition	39, 40, 41
Subtraction	37
Multiplication	17, 18
Division	32, 33

Column Methods

Progress Drive	Steps
Addition	✓
Subtraction	✓
Multiplication	7, 8, 9, 10, 11
Division	8, 9, 10