

Lowbrook Academy

Whole School

Maths Long Term Overview

2017-18



Lowbrook Academy Mathematics Long Term Planning 2017-2018

Early Years Foundation Stage

<u>Term 1</u>

Week Beg 4 th September	Counting & number songs. Counting to 10, and then to 20, counting on from a given number, saying the 'next' number to any given number.
Week Beg 11 th September	Counting & number songs. Numbers to 20: counting up to 10 objects, beginning to record numbers to make the number in a set.
Week Beg 18 th September	Use language such as round, circle and square to describe shapes. Use words such as bigger and smaller to describe size. Use shapes to make pictures and patterns.
Week Beg 25 th September	Finding one more and less to 5 / 10. Comparing two numbers, comparing two quantities, recognising who has less and who has more.
Week Beg 2 nd October	Describing and creating simple patterns.
Week Beg 9 th October	Positional language such as under, behind, next to.
Week Beg 16 th October	Assess & Review

<u>Term 2</u>

Week Beg 30 th October	Big & small. Comparing objects. Use words such as bigger and smaller to describe size		
Parents Evenings this week			
Week Beg 6 th November	Comparing tall and short and beginning to understand the language associated with height		
Week Beg 13 th November	Counting forwards and backwards to and from 10, recognising numbers to 10		
Week Beg 20 th November	Sorting 2-d shapes by shape, beginning to name rectangles and triangles, rehearsing naming squares and circles		
Week Beg 27 th November	Recognising coins and sorting them, counting up to ten coins		

Week Beg 4 th December	Understanding that we can measure time, recognising a minute as a unit of time, counting the number of times	
	something happens in one minute	
Week Beg 11 th December	Counting to 20, recognising numbers to 20, counting sounds and movements, estimating quantities	
Week Beg 18 th December (2	Assess & Review	
days)		

<u>Term 3</u>

Week Beg 1 st January (3 days	Counting to 10, and then to 20, counting on from a given number, saying the 'next' number to any given number.
from Wed 3 rd January))	
Week Beg 8 th January	Numbers to 20: counting up to 20 objects, estimating, starting to record numbers to mark the number in a set.
Week Beg 15 th January	Using the language of position and placing things in given positions in relation to each other.
Week Beg 22 nd January	Adding 2 or 3 to a number up to 10, finding a total by counting on one when the object is hidden.
Week Beg 29 th January	Understanding addition as a combination of two sets, and relating this to counting on and the partitioning of a set.
Week Beg 5 th February	Comparing the lengths of two/three objects, and beginning to measure lengths using a non-standard unit.
Week Beg 12 th February	Assess & Review

<u>Term 4</u>

Week Beg 19 th February	Comparing heavy and light objects and beginning to measure weight on scales using non-standard units.
Parents Evenings this week	
Week Beg 26 th February	Comparing numbers, ordering numbers to 20.
Week Beg 5 th March	Counting forwards and backwards to/from 20, recognising numbers to 20.
Week Beg 12 th March	Sorting 3d shapes, recognising and naming a cube, beginning to recognise a cuboid.
Week Beg 19 th March	Recognising coins, beginning to match each coin to its appropriate number of 1p coins.
Week Beg 26 th March (4 days)	Assess & Review

<u>Term 5</u>

Week Beg 16 th April	Counting to 100, counting on from a given number, saying the 'next' number to any given number.
Week Beg 23 rd April	Numbers to 20: counting up to 20 objects, estimating, recording numbers to mark the number in a set

Week Beg 30 th April	Beginning to use the language of direction, moving in given directions in relation to a starting point. Recognising the	
	hours on an analogue clock, and reading and setting the time to the hour. Recognising the days of the week,	
	ordering the days of the week, beginning to understand tomorrow and yesterday	
Week Beg 7 th May	Adding by counting on, subtracting by counting back, beginning to know the number one more or one less	
Week Beg 14 th May	Understanding addition as counting on and as the combination of two sets/partitioning of a set	
Week Beg 21 st May	Solving problems such as doubling, halving and sharing. Assess & Review	

<u>Term 6</u>

Week Beg 4 th June	Recognising a set of numbers more or less than a given number, recognising numbers between given numbers		
Week Beg 11 th June	Removing a small number of objects from a larger number, counting back to find the remainder		
Week Beg 18 th June	Sorting 3-d shapes, recognising and naming cubes and cuboids, beginning to name pyramids and cones		
Week Beg 25 th June	Recognising coins, solving simple addition and subtraction problems using money		
Week Beg 2 nd July	Swap Around Week		
Week Beg 9 th July	Swap Around Week		
Monday 16 th July (2 days)	Swap Around Week		



Lowbrook Maths Curriculum Long and Short Term Planning

Curriculum Maps

for

Progress in Understanding Mathematics

Termly content for Year 1

 Blue high Yellow h Purple to Italics in thigher yet 	lighting denotes specific material moved dov ghlighting denotes content not explicit in the ext denotes repeated statements. dicate illustrative examples, non-statutory no ear, or beyond the PNS.)	vn from a higher year. PNS for the year, to help you transfer from your exis tes and guidance from the new PoS. (NB most of the	ting lesson planning. non-statutory notes and guidance are new, from a
Year 1	Autumn	Spring	Summer
NUMBER			
Place value and rounding	 Count to 100, forwards and backwards, beginning with 0 or 1, or from any given number <i>e.g.</i> 19, 18, 17, 16 	 Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number 	 Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number e.g. 103, 102, 101, 100, 99, 98,

	 Count, read and write numbers to 100 in numerals, count in multiples of twos and tens <i>e.g. 2, 4, 6, 8, 10, 12,</i> 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 Use language of ordering e.g. first, second, third 	 Count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens <i>e.g. 22, 24, 26, 28, 30, or 90, 80, 70, 60,</i> 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. Use language of ordering e.g. first, second, third Begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100 supported by objects and pictorial representations 	 Count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens <i>e.g. 5, 10, 15, 20, 25,</i> 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. Use language of ordering e.g. first, second, third Begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100 supported by objects and pictorial representations Begin to order numbers to 100 (different tens) Recognise odd and even numbers
		• Begin to order numbers to 100 (different tens) e.g. order 36, 29, 63, 51	
Addition and subtraction	 Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs 	 Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs 	 Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs
	 Represent, <i>memorise</i> and use number bonds and related subtraction facts <i>within 10, in</i> 	• Represent, <i>memorise</i> and use number bonds and related subtraction facts within 10, in several forms, and begin to	 Represent, <i>memorise</i> and use number bonds and related subtraction facts within 20, in several forms e.g. 9 + 7 = 16; 16 - 7 = 9; 7 = 16 - 9

	 several forms e.g. 3 + 4 = 7; 4 = 7 - 3; Add and subtract one-digit and two-digit numbers to 20 (9 + 9, 18 - 9), including zero Solve simple one-step problems (<i>in familiar practical contexts</i>, <i>including using quantities</i>) that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems e.g. 3 + = 7 Problems should include vocabulary such as: put together, add, altogether, total, take away, more than, less than 	 know doubles to 20 e.g. 8 + 8 = 16 complements to 20 e.g. 8 + 12 = 20 Add and subtract one-digit and two-digit numbers to 20 (9 + 9, 18 - 9), including zero Solve simple one-step problems (in familiar practical contexts, including using quantities) that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems Problems should include vocabulary such as: put together, add, altogether, total, take away, distance between, more than, less than 	 Add and subtract one-digit and two-digit numbers to 20 (9 + 9, 18 - 9), including zero Solve simple one-step problems (in familiar practical contexts, including using quantities) that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems egg. 7 = -9 Problems should include vocabulary such as: put together, add, altogether, total, take away, distance between, more than, less than
Multiplication and division	• Double and halve numbers to 20 e.g. double 6 is 12, half of 10 is 5	 Double and halve numbers to 20 e.g. double 8 is 16, half of 20 is 10 	 Double and halve numbers to 20 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 <i>e.g. share</i> 8 sweets between 2 children
Fractions	 Recognise, find and name a half as one of two equal parts of an object, shape, <i>length</i> or quantity <i>e.g. Find half of a length of string,</i> <i>by folding;</i>. 	 Recognise, find and name a half as one of two equal parts of an object, shape, length or quantity <i>e.g.</i> What is half of 12 counters? Recognise, find and name a quarter as one of four equal parts of an object, 	 Recognise, find and name a half as one of two equal parts of an object, shape, length or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity e.g. find ¼ of 12 beads, practically

		shape <mark>or quantity</mark> e.g. find a quarter of a shape, by folding in half and half again	
MEASUREMENT			
Measurement	 Compare, describe and solve practical problems for: lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) mass or weight (e.g. heavy/light, heavier than, lighter than) capacity/volume (full/empty, more than, less than) time (quicker, slower, earlier, later) Use non standard measures to measure and begin to record the following: lengths and heights mass/weight capacity and volume Recognise and know the value of different denominations of coins Sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening 	 Compare, describe and solve practical problems for: lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) mass or weight (e.g. heavy/light, heavier than, lighter than) capacity/volume (full/empty, more than, less than, quarter) time (quicker, slower, earlier, later) Begin to use measuring tools (ruler, weighing scales, containers) to measure and begin to record the following: lengths and heights mass/weight capacity and volume time (hours, minutes) Recognise and know the value of different denominations of coins and notes Sequence events in chronological order using language such as: 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 	 Compare, describe and solve practical problems for: lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) mass or weight (e.g. heavy/light, heavier than, lighter than) capacity/volume (full/empty, more than, less than, quarter) time (quicker, slower, earlier, later) Begin to use standard measures (metres, cms, grams/kg, litres) to measure and begin to record the following: lengths and heights mass/weight capacity and volume time (hours, minutes, seconds) Recognise and know the value of different denominations of coins and notes Sequence events in chronological order using language such as: 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
		dates, including days of the week, weeks, months <mark>and years</mark>	

	 Recognise and use language relating to dates, including days of the week, weeks, months and years Tell the time to the hour and draw the hands on a clock face to show these times. 	 Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. 	 Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
GEOMETRY			
Properties of shapes	 Recognise and name common 2- D and 3-D shapes, including: 2-D shapes (e.g. rectangles (including squares), circles and triangles) 3-D shapes (e.g. cuboids, including cubes, pyramids and spheres). 	 Recognise and name common 2-D and 3-D shapes, in different orientations and sizes, including: 2-D shapes (e.g. rectangles (including squares), circles and triangles) 3-D shapes (e.g. cuboids, including cubes, pyramids and spheres). know that rectangles, triangles, cuboids and pyramids can be different shapes 	 Recognise and name common 2-D and 3-D shapes, in different orientations and sizes, including: 2-D shapes (e.g. rectangles (including squares), circles and triangles) 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres). know that rectangles, triangles, cuboids and pyramids can be different shapes
Position and direction	• Describe positions, directions and movements using language such as left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside	 Describe positions, directions and movements using language such as left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside Describe position, directions and movements, including half and quarter turns, in a clockwise direction 	 Describe positions, directions and movements using language such as left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside Describe position, directions and movements, including half, quarter and three-quarter turns, in a clockwise direction



Lowbrook Maths Curriculum Long and Medium Term Planning

Curriculum Maps

for

Progress in Understanding Mathematics

Termly content for Year 2

- Blue highlighting denotes specific material moved down from a higher year.
- Yellow highlighting denotes content not explicit in the PNS for the year, to help you transfer from your existing lesson planning.
- Purple text denotes repeated statements.
- *Italics* indicate illustrative examples, non-statutory notes and guidance from the new PoS. (NB most of the non-statutory notes and guidance are new, from a higher year, or beyond the PNS.)

Year 2	Autumn	Spring	Summer
NUMBER			
Number and place value	 count in steps of 2 and 5 from 0, and tens from any number, forward or backward <i>e.g. 93, 83, 73, 63,</i> 	 count in steps of 2, 3, and 5 from 0, and tens from any number, forward or backward 	 count in steps of 2, 3, and 5 from 0, and tens from any number, forward or backward

	 recognise the place value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers using different representations, including the number line read and begin to write numbers to at least 100 in numerals and in words <i>e.g.</i> <i>forty</i> compare and order numbers from 0 up to 100 use place value and number facts to solve problems 	 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 read and write numbers to at least 100 in numerals and in words <i>e.g. forty-five</i> compare and order numbers from 0 up to 100; use <, > and = signs use place value and number facts to solve problems. 	 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 read and write numbers to at least 100 in numerals and in words compare and order numbers from 0 up to 100; use <, > and = signs use place value and number facts to solve problems.
		 partition numbers in different ways e.g. 23 = 20 + 3 = 10 + 13 	 partition numbers in different ways e.g. 23 = 20 + 3 = 10 + 13
Addition and subtraction	 add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens e.g. 87 - 30 = 57 	 add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens two two-digit numbers <i>e.g.</i> 34+29 	 add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens two two-digit numbers <i>e.g. 63-29</i>
	 solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving 	 adding three one-digit numbers e.g. 6 + 5 + 4 solve problems with addition and subtraction: 	 Imadding three one-digit numbers <i>e.g.</i> 9 + 7 + 9 solve problems with addition and subtraction:

	 numbers, quantities and measures applying their increasing knowledge of mental and written methods begin to recall and use addition and subtraction facts to 20, <i>e.g.</i> 19 - 7 = 12 and derive and use related facts up to 100 <i>e.g.</i> 30 = 90 - 60 recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot 	 using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 recognise and use the inverse relationship between addition and subtraction and subtraction and use this to check calculations and missing number problems. show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another example. 	 using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 recognise and use the inverse relationship between addition and subtraction and subtraction and use this to check calculations and missing number problems. show that addition of two numbers can be done in any order (commutative) and subtraction of one number from eaction of one number from eaction and subtraction and subtraction of one number from eaction and subtraction and subtraction of one number from eacting the second of the second of
	another cannot	 and subtraction of one number from another cannot use the language 'sum' and 'difference' e.g. find two numbers with a difference of 6 (3 and 9, 10 and 16); 	 and subtraction of one number from another cannot use the language 'sum' and 'difference' e.g. three numbers sum to 12, two numbers are 3 and 7, what is the third number?
Multiplication and division	 begin to recall and use multiplication and division facts for the 2, and 10 multiplication tables, including recognising odd and even numbers e.g. 22 ÷ 2 = 11 	 recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers 	 recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

•	calculate mathematical statements for	
	multiplication and division within the	
	multiplication tables and write them	
	using the multiplication (×), division	
	(÷) and equals (=) signs	

- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- recognise and use the inverse relationship between multiplication and division in calculations
- relate multiplication and division to grouping and sharing discrete(e.g. counters and continuous quantities e.g. water
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts *e.g. share 18 counters between 3 children*

• recognise, name and write fractions

 $\frac{1}{3}$, $\frac{1}{4}$, 2/4 and $\frac{3}{4}$ of a shape

Fractions

- calculate mathematical statements for multiplication and division 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) and division of one number by another cannot
- recognise and use the inverse relationship between multiplication and division in calculations
- relate multiplication and division to grouping and sharing discrete e.g. counters and continuous quantities e.g. water, and relating these to fractions and measures e.g. 40cm ÷ 2 = 20cm; 20cm is ½ of 40cm
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

recognise, find, name and write

fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or

- calculate mathematical statements for multiplication and division 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) and division of one number by another cannot
- recognise and use the inverse relationship between multiplication and division in calculations
- relate multiplication and division to grouping and sharing discrete e.g. counters and continuous quantities e.g. water, and relating these to fractions and measures e.g. 40cm ÷ 2 = 20cm; 20cm is ½ of 40cm
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts e.g. there are 10 pencils in a box, I have 5 boxes and 3 spare pencils, how many do I have altogether?

 recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a

		 quantity e.g. how long is ¹/₃ of a ribbon which is 60 cm long? write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of two quarters and one half. count in fractions e.g. 0, ½, 1, 1½, 2, 2½, 	 length, shape, set of objects or quantity write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of two quarters and one half. count in fractions e.g. 3¼, 3²/4, 3¾, 4, 4¼,
MEASUREMENT	r		
Measurement	 choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit, using rulers compare and order lengths and record 	 choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g) to the nearest appropriate unit, using rulers, scales compare and order lengths, masses 	 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
	the results using >, < and =	and record the results using >, < and =	 compare and order lengths, masses,
	 recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value 	 recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value 	volume/capacity <mark>and record the</mark> results using >, < and =
	• find different combinations of coins to	• find different combinations of coins to	 recognise and use symbols for pounds (£) and pence (p); combine amounts
	 equal the same amounts of money e.g. find different ways to make 25p 	equal the same amounts of money	to make a particular value e.g. make 73p using the fewest coins
	 solve simple problems in a practical context involving addition and subtraction of money of the same unit 	 solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change e.g. I buy 2 	• find different combinations of coins to equal the same amounts of money
	including giving change e.g. I buy a toy for £14; how much change do I get from £20?	bags of sweets for 20p each, how much change will I get from 50p?	 solve simple problems in a practical context involving addition and subtraction of money of the same unit

	 compare and sequence intervals of time tell and write the time quarter past/to the hour and draw the hands on a clock face to show these times <i>e.g.</i> draw the hands on a clock face to show ¼ to 6, making sure the hour hand is located correctly 	 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. 	 including giving change e.g. I buy a cake for 60p and a biscuit for 25p, how much change will I get from £1? 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.
GEOMETRY			
Properties of shapes	 identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line 	 identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line 	 identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line
	 araw lines and shapes using a straight edge 	 araw lines and shapes using a straight edge 	 araw lines and shapes using a straight edge
	 identify and describe the properties of 3-D shapes, including the number of vertices and faces 	 identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces 	 identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
	 compare and sort common 2-D and 3- D shapes and everyday objects e.g. sort 3-D shapes in different ways such as whether they have triangular faces, all straight edges 	 compare and sort common 2-D and 3- D shapes and everyday objects e.g. sort 3-D shapes in different ways such as whether they are prisms, whether they have more than 8 edges 	 compare and sort common 2-D and 3- D shapes and everyday objects e.g. sort 2-D shapes in different ways such as whether they are quadrilaterals and have line symmetry
	 recognise and name, polygons e.g. pentagon, hexagon, octagon and cones 	 recognise and name quadrilaterals, polygons e.g. pentagon, hexagon, octagon, prisms and cones 	 recognise and name quadrilaterals, polygons e.g. pentagon, hexagon, octagon, prisms and cones

	-		
		 identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid 	 identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid
Position and direction	 order and arrange combinations of mathematical objects in patterns, including those in different orientations e.g. a turning shape, draw the next shape in the pattern 	 order and arrange combinations of mathematical objects in patterns, including those in different orientations 	 order and arrange combinations of mathematical objects in patterns, including those in different orientations
		 use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line. 	 use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line.
		• Use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (e.g. pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles)	• Use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (e.g. pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles)
STATISTICS			
Use and interpret data	 interpret and begin to construct simple pictograms, tally charts, block diagrams and simple tables 	 interpret and construct simple pictograms e.g. where the symbol represents 2, 5 or 10 units, tally charts, block diagrams and simple tables 	 interpret and construct simple pictograms <i>e.g. where the symbol</i> represents 2, 5 or 10 units, tally charts, block diagrams and simple tables

 answer simple questions by counting	 answer simple questions by counting	 answer simple questions by counting
the number of objects in each	the number of objects in each	the number of objects in each
category and sorting the categories by	category and sorting the categories by	category and sorting the categories by
quantity	quantity	quantity
 answer questions about totalling and comparing categorical data. 	 answer questions about totalling and comparing categorical data. 	



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Progress in Understanding Mathematics

Termly content for Year 3

Blue highlighting denotes specific material moved down from a higher year.
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 Year 3 Autumn Spring Spring Summer

Number and place value	 Count from 0 in multiples of 4, 50 and 100; find 10 or 100 more or less than a given number <i>e.g. 10 more than 395</i> Recognise the place value of each digit in a three-digit number (hundreds, tens, 	 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, 	 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,
	 Identify, represent and estimate numbers using different representations including those related to measure e.g. using place value cards to show 985 = 900 + 80 + 5; tally marks; base 10 apparatus 	 Identify, represent and estimate numbers using different representations <i>including those related to measure</i> Apply partitioning related to place value using varied and increasingly complex 	 Identify, represent and estimate numbers using different representations including those related to measure Apply partitioning related to place value using varied and increasingly complex
	 Apply partitioning related to place value using varied and increasingly complex problems e.g. 146 = 100 and 40 and 6, 146 = 130 and 16 	 Read and write numbers to at least 1000 in numerals and in words e.g. three hundred and forty-six 	 Read and write numbers to at least 1000 in numerals and in words Compare and order numbers up to 1000
	 Read and write numbers to at least 1000 in numerals Compare and order numbers up to 1000 Solve number problems and practical problems involving place value and rounding 	 Compare and order numbers up to 1000 Solve number problems and practical problems involving place value and rounding 	 Solve number problems and practical problems involving place value and rounding
Addition and subtraction	 Add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens a three-digit number and tens a three-digit number and hundreds e.g. 858 – 300 	 Add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens e.g. 476 + 50 a three-digit number and hundreds. 	 Add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens e.g. 824 – 30 a three-digit number and hundreds

	 two-digit numbers where the answer could exceed 100 e.g. 99+18 Add and subtract numbers with up to three digits Estimate the answer to a calculation and use inverse operations to check answers 	 two-digit numbers where the answer could exceed 100 Add and subtract numbers with up to three digits, using formal written methods of columnar addition Estimate the answer to a calculation and use inverse operations to check answers 	 two-digit numbers where the answer could exceed 100 e.g. 68+47 Add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction
	 Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction <i>e.g. investigate the numbers which could go in the boxes when</i> 2 × 7 + 7 	• Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction e.g. There are 46 boys and 58 girls in Year 3, but 12 children are away; how many Year 3 children are at school?	 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 <i>e.g. investigate the numbers which could go in the boxes when</i> 3 = 2 6
Multiplication and division	 Recall and use multiplication and division facts for the 3 and 4 multiplication tables 	 Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 	 Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
	 Develop efficient mental methods, for example, using commutativity e.g. 2 × 7 × 5 = 2 × 5 × 7 = 10 × 7 = 70 and multiplication and division facts to derive related facts e.g. using 3 × 2 = 6, 6 ÷ 3 = 	 Develop efficient mental methods, for example, using commutativity and multiplication and division facts to derive related facts 	 Develop efficient mental methods, for example, using commutativity e.g. 4 × 12 × 5 = 4 × 5 × 12 = 20 × 12 = 240 and multiplication and division facts to derive related facts
	2 and 2 = 6 ÷ 3 to derive 30 × 2 = 60, 60 ÷ 3 = 20 and 20 = 60 ÷ 3 • Write and calculate mathematical	 Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit 	 Write and calculate mathematical statements for multiplication and division using the multiplication tables that they
	statements for multiplication and	numbers times one-digit numbers, using	know, including for two-digit numbers

	 division using the multiplication tables that they know including for two-digit numbers times one-digit numbers, usin mental methods <i>e.g. 22×3</i> Solve problems, including missing number problems, involving multiplication and division <i>e.g. 90 = 3 ×</i> 	<pre>mental and progressing to formal written methods e.g. 34×5 or 64÷4 • Solve problems, including missing number problems, involving multiplication and division e.g. 240 = × 4</pre>	 times one-digit numbers, using mental and progressing to formal written methods <i>e.g.</i> 46×8 or 81÷3 Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems (<i>e.g.</i> change a recipe for 2 people to make enough for 6 people) and correspondence problems in which n objects are connected to m objects. <i>e.g.</i> 3 hats and 4 coats, how many different outfits? Or Share 6 cakes equally between 4 children.
Fractions	 Count up and down in tenths; recognise that tenths arise from dividing an objec into 10 equal parts and in dividing one- digit numbers or quantities by 10 e.g. 3 cakes shared between 10 children gives 	 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 tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one- digit numbers or quantities by 10
	 ³/₁₀ each. Recognise, find and write fractions of a discrete set of objects: unit fractions an non-unit fractions with small denominators <i>e.g. find</i> ¹/₃ of 9 beads, then ²/₃ of 9 beads 	 Connect tenths to place value, decimal measures and to division by 10 e.g. ⁷/₁₀ = 0.7 Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators e.g. there are 8 marbles 	 Connect tenths to place value and decimal measures (not restricted to decimals between 0 and 1) and to division by 10 e.g. ¹³/₁₀ = 1.3 Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small
	 understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find ¹/₃, you divide by 3; to find ¹/₅, you divide by 5 Recognise and use fractions as numbers on the number line: unit fractions and 	 and three of them are red; what fraction of the marbles are red? Understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find ¹/₃, you divide by 3; to find ¹/₅, you divide by 5 	 denominators e.g. find ⁴/₅ of 30 Understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find ¹/₃, you divide by 3; to find ¹/₅, you divide by 5

	 non-unit fractions with small denominators Recognise and show, using diagrams, equivalent fractions with small denominators <i>e.g.</i> ½ = ³/₆ Solve problems that involve fractions <i>e.g. Amy ate</i> ¼ of her 12 sweets and Ben ate ½ of his 8 sweets, who ate more sweets? 	 Recognise and use fractions as numbers on the number line: unit fractions and non-unit fractions with small denominators Recognise and show, using diagrams, equivalent fractions with small denominators Compare and order unit fractions, and fractions with the same denominators e.g. put in order ³/₈, ¹/₈, ⁷/₈, ⁵/₈ Solve problems that involve fractions 	 Recognise and use fractions as numbers on the number line: unit fractions and non-unit fractions with small denominators Recognise and show, using diagrams, equivalent fractions with small denominators Add and subtract fractions with the same denominator within one whole <i>e.g.</i> If ¹/₃ of a cake is eaten then ²/₃ remains or ⁵/₇ + ¹/₇ = ⁶/₇ Compare and order unit fractions, and fractions with the same denominators <i>e.g.</i> put in order ¹/₂, ¹/₈, ¹/₄, ¹/₆ Solve problems that involve fractions <i>e.g.</i> <i>Ali, Ben and Cara have 24 fish.</i> ²/₃ of them belong to Ali, ¼ belong to Ben and the rest belong to Cara; how many fish belong to Cara?
MEASUREMENT			1
Measurement	 Measure, compare, add and subtract: length (m/cm/mm) e.g. how much ribbon is left when 36cm is cut from 1m? Which is longer: 6½cm or 62mm? 5m or 450cm? Measure and draw lines to the nearest ½ cm. Know the approximate length of a book, a room, a handspan 	 Measure, compare, add and subtract: length (m/cm/mm) mass (kg/g) e.g. find 3 vegetables which weigh between 100g and 300g. Read 250g on a scale labelled every 100g. Which is heavier: 1kg 300g or 1½kg? Know the approximate mass of a book, an apple, a baby, a man 	 measure, compare, add and subtract: length (m/cm/mm); mass (kg/g); volume/capacity (l/ml) e.g. Read 300ml on a scale labelled every 200ml. Order a set of containers by capacity, using a measuring jug and water to check. Know the approximate capacity of a cup, a jug, a bucket

	 Add and subtract amounts of money to give change, using both £ and p in practical contexts <i>e.g. I buy2 packs of sweets for 75p each; how much change will I get from £2?</i> Tell and write the time from an analogue clock <i>e.g. draw hands on a clock face to show 'ten to four', making sure the hour hand is located correctly</i> Record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight Compare durations of events, for example to calculate the time taken by particular events or tasks. 	 Add and subtract amounts of money to give change, using both £ and p in practical contexts e.g. I have a £2 coin, two £1 coins, three 50p coins, a 20p and seven 5p coins; how much more do I need to make £10? Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour digital clocks Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight Compare durations of events, for example to calculate the time taken by particular events or tasks. Know the number of seconds in a minute and the number of days in each month, year and leap year 	 measure the perimeter of simple 2-D shapes e.g. measure accurately the sides of a triangle in cm or mm, in order to find the perimeter add and subtract amounts of money to give change, using both £ and p in practical contexts e.g. Ali is saving 80p each week, to buy a toy costing £5; how many weeks will it take him? tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour digital clocks estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight Compare durations of events, for example to calculate the time taken by particular events or tasks. Know the number of seconds in a minute and the number of days in each month, year and leap year
GEOMETRY Properties of shapes	 Draw 2-D shapes and make 3-D shapes using modelling materials: recognise 3-D 	 Draw 2-D shapes and make 3-D shapes using modelling materials: 	 Draw 2-D shapes and make 3-D shapes using modelling materials: recognise 3-D
	shapes in different orientations; and		

	describe them e.g. number of faces, edges and vertices (singular: vertex), e.g. guess my shape: it has a square face and four triangular faces (square-based pyramid)	 recognise 3-D shapes in different orientations; and describe them Recognise that angles are a property of shape or a description of turn Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle Describe the properties of shapes using accurate language, including symmetrical/not symmetrical, lengths of lines, and acute and obtuse angles e.g. sort triangles into those with an obtuse angle and those without 	 shapes in different orientations; and describe them Recognise that angles are a property of shape or a description of turn Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle Describe the properties of shapes using accurate language, including symmetrical/not symmetrical, lengths of lines, and acute and obtuse angles Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
STATISTICS			
Use and interpret data	 Interpret and present data using bar charts, pictograms and tables, understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy. Solve one-step and two-step questions such as 'How many more?' and 'How many fower?' using information presented in 	 Interpret and present data using bar charts, pictograms and tables, understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy. Solve one-step and two-step questions such as 'How many more?' and 'How many fower?' using 	 Interpret and present data using bar charts, pictograms and tables, understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy. Solve one-step and two-step questions such as 'How many more?' and 'How many fower?' using information
	 Interpret data presented in many contexts 	 Interpret data presented in many contexts 	 Interpret data presented in many contexts



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Numeracy – Year 4

Week Beg 4 th September	Number and Place Value	Recognise the place value in 4 digit number; Order and compare numbers; Find 1000 more or less
Week Beg 11 th September	Addition and Subtraction	Use mental methods for addition; Use mental methods for subtraction; Solve 1 step word problems; Solve 2-step word problems
Week Beg 18 th September	Geometry- Properties of shape	Identify lines of symmetry in 2D shapes; Reflect 2 D shapes along a line of symmetry; Complete symmetrical patterns; Make patterns by reflecting shapes in vertical lines of symmetry
Week Beg 25 th September	Multiplication and division	Recall multiplication and division facts for 9 times table;Recall multiplication and division facts for 9 times table; Recall square numbers 12x12 and the related division facts; Recall 7 times table; Finding factors; Solving problems using multiples.
Week Beg 2 nd October	Fractions	Recognise and show using diagrams, families of equivalent fractions(2 lessons);Understand the relation between non-unit fractions and multiplication and division(2 lessons)
Week Beg 9 th October	Geometry- Position and direction	Translating a 2D shape; Co-ordinates map; Plotting the point; Translation on a grid.
Week Beg 16 th October	Science Week	Measurement-Voluma and Capacity-Collins 4C PG 24-27

Week Beg 30 th October	Addition and subtraction	Addition chain; Written addition 3digits; Add with up to 4 digits using column method; Solve word problems
Week Beg 6 th November	Decimals	Understand the place value of tenths; Compare decimals with 1 decimal place; Round to the whole number; Solve word problems involving decimals to 1 place
Week Beg 13 th November	Measurement	Recording mass using decimal notation; multiples of standard weight; estimating and rounding masses; Calculate different measures of mass using decimals to 1 place.
Week Beg 20 th November	Multiplication and division	Divide TO by O and HTO by O
Week Beg 27 th November	Multiplication and division	Multiplication using partition; Multiplication using partitioning and the grid method; Multiplication using the expanded written method; Mental multiplication
Week Beg 4 th December	Measurement (Time)	Converting units of time; Using 12-hour clocks; Using 24-hour clocks; Changing times
Week Beg 11 th December	Assessment and Feedback	Using and Applying Skills - PUMA test Autumn - Feedback with pupils.
Week Beg 18 th December	Use and interpret data	Interpret and present discrete data using appropriate graphical methods, including bar charts, using a greater range of scales; Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Week Beg Wednesday 3 rd January	Number and Place Value	Ordering numbers beyond 1000; Place value problems; Rounding to the nearest; Negative numbers
Week Beg 8 th January	Addition and Subtraction	Use mental method for subtraction; Subtract numbers with up to 4 digits using column method; Estimate and use inverse operations to check answers to a calculation; Solve 2 step problems in contexts

Week Beg 15 th January	Geometry- Properties of shape	Acute and obtuse angles; identify acute and obtuse angles in 2d shapes; Compare and order angles up to 2 right angles by size; regular and irregular polygons
Week Beg 22 nd January	Multiplication and division	Count in multiples of 25,100 and 1000; Multiply TOxO; Multiply TOxO using most efficient method; Solve problems
Week Beg 29 th February	Fractions	Use the number line to connect fractions and numbers; Count up and down in Hundredths and tenths; Finding non unit tenths and hundredths; Solve fraction problems
Week Beg 5 th February	Maths Week	Staistics-Collins 4C PG 48-54

Week Beg 19 th February	Measurement (Length)	Covert between km and m; Convert from larger to smaller units of measurement; Estimate and compare length and round numbers; Calculate different measures of length using 1 decimal place.
Week Beg 26 th February	Book Week	Pie charts and bar charts
Week Beg 5 th March	Addition and Subtraction	Adding mentally; Subtracting mentally; Writing 2-step problems; adding numbers up to 4 digits.
Week Beg 12 th March	Addition and Subtraction	Estimate and use inverse operations to check answers; subtracting 4 digit numbers; Solve 2 step problems
Week Beg 19 st March	Assessments	PUMA assessment 2 (Spring)
Week Beg 26 th March	Statistics	Interpret and present discrete data using scaled bar charts; Interpret and present continuous data in simple time graphs; Solve problems using data presented in scaled pictograms, bar charts and tables; Solve problems using data presented in simple time graphs

Week Beg 16 th April	Multiplication and division	Multiply HTOxO using partitioning; Multiply HTOxO using partitioning and the grid method; Multiply HTOxO using column method; Solve problems and reason mathematically.
Week Beg 23 rd April	Number-Decimals	Understand the place value of hundredths; Compare numbers with 2 decimals places; Divide 1 and 2 digit numbers by 10; Divide 1 and 2 digit numbers by 100.
Week Beg 30 th April	Measurement (Perimeter and Area)	Measure and calculate the perimeter of rectangles using the rule P=2(A+B); Find the area of rectangles by counting squares; Find the area of rectangles and other shapes by counting squares; Use multiplication to calculate the area of rectangles.
Week Beg 7 th May	KS2 Optional Sats	
Week Beg 14 th May	Number and place Value	Order and compare numbers beyond 1000; Round any number to the nearest 10,100 and 1000;Count backwards through 0 to include negative numbers; Read and write Roman Numerals to 100
Week Beg 21 st May	Arts and Cultural Week	

Week Beg 4 th June	Geometry (Positions and directions)	Use coordinates to describe the position of a point on a grid; Constellation coordinates; use coordinates to describe the position of a point on a grid; Plot specified points and join them to make 2 d shapes
Week Beg 11 th June	Geometry (Properties of shape)	Use properties and sizes to compare and classify triangles; Use properties and sizes to compare and classify parallelograms and rhombuses; Use properties and sizes to compare and classify trapezium and kites; Use properties and sizes to compare and classify trapezium and kites; Use properties and sizes to compare and classify quadrilaterals.
Week Beg 18 th June	SPORTS Week	

Week Beg 25 th June	Fractions	Use factors and multiples to recognize equivalent fractions and simplify fractions; Add fractions with the same denominator; subtract fractions with the same denominator; solve simple measure and money problems involving fractions
Week Beg 2 nd July	Decimals	Recognise and write decimal equivalents of any number of tenths and Hundredths; Recognise and write decimal equivalents to $\frac{1}{2}$, $\frac{3}{2}$; Compare decimasl with up to 2 places; divide 1 and 2 digit by 10 and 100.
Week Beg 9th July	Transition Week	
Week Beg 16 th July	Transition Week	
Week Beg 23 rd July	INSETS	



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Maths- 5G

Week Beg 4th Sept	Place Value and Rounding	Read, write and order numbers up to 1,000,000. Round numbers to the nearest 10, 100, 1000. Recognise Roman Numerals up to 50 (L)
Week Beg 11th Sept	Number and Decimals	Order and compare negative numbers. Mentally, add, subtract, multiply and divide with decimals numbers. Round and order decimals up to 3 decimal places
Week Beg 18th Sept	Addition and Subtraction	Add and Subtract whole numbers with more than 4 digits using formal written methods. Solve addition and subtraction problems in contexts. Use rounding/approximation to check answers and check level of accuracy.
Week Beg 25thSept	Addition and Subtraction	
Week Beg 2 nd Oct	Geometry: Properties of Shapes	2D and 3D shapes and their properties. Understand parallel and perpendicular. Angles - acute, obtuse, reflex. Estimate angles
Week Beg 9 th October	Multiplication and Division	Multiply and divide numbers mentally drawing upon known facts. Multiply and divide numbers by 10, 100, 1000
Week Beg 16 th October	Measuremen t	Conversion between different units of measurement e.g. km and m; cm and m; g and kg; ml and L. Link back to Multiply and divide by 10, 100, 1000

Week Beg 30 th October	Multiplication	Multiply numbers up to four digits by one or two digit number using formal written method. Multiples and factors. Times tables and division facts.
Week Beg 6th Nov	Fractions, decimals and percentages	Read and write decimal numbers as fractions e.g. 0.71 = 71/100. Mentally add and subtract: tenths e.g. 0.8 - 0.3; one-digit whole numbers and tenths e.g. 3.4 + 2.6; complements of 1 e.g. 0.85 + 0.15 = 1
Week Beg 13 th Nov	Fractions, decimals and percentages	Count forwards and backwards in fractions and decimals bridging zero. Identify, name and write equivalent fractions and make links to decimals and measures e.g. 37/100 = 0.37 and 37cm = 0.37m
Week Beg 20 th Nov	Fractions, decimals and percentages	Compare and order fractions whose denominators are all multiples of the same number. Understand the per cent symbol (%) means parts per 100. Write percentage as fraction and decimal. Recognise percentages as proportions of quantities 40% are boys what percent are girls? As well as operators on quantities e.g. 40% of 30
Week Beg 27 th Nov	Area and Perimeter	Measure and calculate the perimeter of composite shapes. Find perimeter of composite shapes when one or two sides are missing. Calculate and compare area of squares and rectangles using standard units (cm ²) or (m ²)
Week Beg 4 th Dec	Geometry: Position and Direction	Reflections and translations - Identify, describe and represent the position of a shape following a reflection or translation.
Week Beg 11 th Dec	Statistics	Complete, interpret and read tables including timetables.
Week Beg 18 th December	Assessment and Feedback	Using and Applying Skills - PUMA test Feedback with pupils.

Week Beg Thurs 4 th	Statistics	Complete, interpret and read graphs and tables including bus/train timetables
January		

Week Beg 8 th January	Multiplication and division	Recap on short division and long multiplication and applying these skills to real life contexts. Higher ability to look at inverse operations and algebra
Week Beg 22 nd January	Number	Sequences, negative numbers in a context. Square, prime and cube numbers and using and applying (multi-step problems)
Week Beg 29 th January	Geometry	Angles in a triangle and other shapes. Finding right angles and drawing shapes and shape properties.
Week Beg 5 th February	Fractions, decimals and percentage	Equivalence between fractions, decimals and percentages. Adding and subtracting fractions with same denominator and with denominators with same multiples. Fractions of amounts.

Week Beg 19th February	Measures	Conversions of units (Metric). Volume and area. Time, timetables
Week Beg 26 th February	Book Week	
Week Beg 5 th March	Area, Perimeter and Volume	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
Week Beg 12 th March	Science Week	
Week Beg 19 th March	Percentages	Converting between fractions, decimals and percentages (Competency test). Percentage change and percentage of amounts.
Week Beg 26th March	Assessments	PUMA assessment

Week Beg 16 th April	Ratio & Proportion	Introduction to ratio. Simplifying ratios. Ratio dividing. Introduction to proportion
Week Beg 23 rd April	Negative Numbers and Operations in context	Counting backwards across zero. Negative numbers in a context. Two step problems, division and multiplication in a context
Week Beg 30 th April	Place Value and Rounding	Place value up to 10,000,000. Reading and writing large numbers. Rounding numbers, including decimals to any degree of accuracy
Week Beg 7th May	Y5 OPTIONAL SATS	
Week Beg 14 th May KS2 SATS	Fractions and decimals	Fractions of amounts and shapes. Simplifying fractions. Equivalent fractions. Fractions to decimals and vice versa.
Week Beg 21st ^h May ARTS AND CULTURE WEEK	Geometry – measuring, drawing angles and angle problems	Using protractor to measure and draw angles. Using facts to solve angle problems.

Week Beg 4 th June	Revision and preparation for end of year assessments	Lower group – Number and calculations, rounding All – Fractions (conversions, of amounts, mixed numbers), Line graphs, Higher – Pie Charts, co-ordinates, proportion

Week Beg 11 th June	Revision and preparation for end of year assessments	Lower group – conversions of measurements All – Geometry, measuring angles, drawing angles, calculating angles, area, perimeter and volume	
Week Beg 18th June	SPORTS WEEK		
Week Beg 25 th June	Assessment Week PUMA Summer, Arithmetic tests		
Week Beg 2nd July	School Camp		
Week Beg 9 th July	Transition Week		
Week Beg 16th July	School Finishes 17th July		



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Numeracy – Class 6M

Term 1

Week Beg 4 th September	Place Value and Rounding	Read, write and order numbers up to 10,000,000. Round any number to any degree of accuracy. Recognise Roman Numerals.
Week Beg 11 th September	Measurement	Conversion between different units of measurement e.g. km and m; cm and m; g and kg; ml and L. Link back to Multiply and divide by 10, 100, 1000
Week Beg 18 th September	Four Operations	Add and Subtract numbers with more than 4 digits and decimals using formal written methods. Solve addition and subtraction problems in contexts. Use rounding/approximation to check answers and check level of accuracy.
Week Beg 25 th September	Four operations	Long and Short Division and long Multiplication – Multiply and Division in a context
Week Beg 2 nd October	Geometry: Properties of Shapes	Translations and coordinates. Missing coordinates to complete shapes. Properties of 2D shapes an drawing them accurately. Nets of 3D shapes (Cubes)
Week Beg 9 th October	Algebra	Use symbols to represent variables. Using formulae and solving simple equations
Week Beg 16 th October	Ratio and proportion	Solve problems involving the relative sizes of two quantities. Adjusting Recipes and dividing amounts into shared ratios

Week Beg 30 th Fraction October decima percent	Read and write decimal numbers as fractions e.g. $0.71 = 71/100$. Me tenths e.g. $3.4 + 2.6$; complements of 1 e.g. $0.85 + 0.15 = 1$	entally add and subtract: tenths e.g. 0.8 - 0.3; one-digit whole numbers and
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Week Beg 6 th November	Fractions, decimals and percentages	Use common factors to simplify fractions and use common multiples to express fractions in the same denominator. List equivalent fractions to identify fractions with common denominators. and make links to decimals and measures e.g. 37/100 = 0.37 and 37cm = 0.37m
Week Beg 13 th November	Fractions, decimals and percentages	Compare and order fractions including fractions that are bigger than 1. Understand the per cent symbol (%) means parts per 100. Write percentage as fraction and decimal. Recognise percentages as proportions of quantities 40% are boys what percent are girls? As well as operators on quantities e.g. 40% of 30
Week Beg 20 th November	Measurement	Measure and calculate the perimeter of composite shapes. Find perimeter of composite shapes when one or two sides are missing. Calculate and compare area of squares and rectangles using standard units (cm ²) or (m ²). Area of triangles and parallelograms.
Week Beg 27 th November	Geometry: Position and Direction	Reflections and translations - Identify, describe and represent the position of a shape following a reflection or translation.
Week Beg 4 th December	Statistics	Interpret and construct pie charts and line graphs and use these to solve problems
Week Beg 11 th December	Algebra	Solving equations. Writing and using formulae. Enumerate all possibilities of combinations of two variables
Week Beg 18 th December	Assessment and Feedback	Using and Applying Skills - PUMA test Autumn - Feedback with pupils.

Week Beg Wednesday 3 rd January	Statistics	Calculate and interpret the mean as an average. Use scatter graphs/ conversion graphs (e.g. pound to euro conversions)
Week Beg 8 th January	Multiplication and division	Recap on short division and long multiplication and applying these skills to real life contexts. Higher ability to look at inverse operations. All to look at word based problems involving multiplication and division. Long Division to be looked at in more detail.
Week Beg 15 th January	Number	Negative numbers in a context. Square, prime and cube numbers. Factors (HCF), Multiples (LCM), Primes and prime factors.
Week Beg 22 nd January	Geometry	Compare and classify geometric shapes based on their properties and sizes. E.g. Parallel sides, lines of symmetry). Find unknown angles in any triangle, quadrilateral and regular polygons. Vertically opposite angles and describing them algebraically e.g. a=180 – (b+c)

Week Beg 29 th February	Fractions, decimals and percentage	Associate fractions with division and calculate decimal fraction equivalents e.g. 0.375 = 5/8. Add and subtract fractions with different denominators and mixed numbers.
Week Beg 5 th February	Measure	Conversions of units (Metric). Volume and area. Time

Week Beg 19 th February	Ratio and Proportion	Solve problems involving similar shapes where the scale factor is known or can be found. E.g two rectangles, the smaller one is 10cm by 15cm the larger one has a width of 30cm so what is the length. Solve problems involving unequal sharing. Solve problems involving the calculation of percentages.
Week Beg 26 th February	SATS REVISION	Begin the process of practice papers and analyse of the results. Focus on problem areas during individual lessons and repeat.
Week Beg 5 th March		Areas of focus likely to be: Algebra, Pie charts, Word based problems, Ratio and proportion.
Week Beg 12th March		Ensure Arithmetic is well known to enable scores of 35+ by ALL pupils.
Week Beg 19 st March		
Week Beg 26 th March		

Week Beg 16 th April	SATS REVISION	As above.
Week Beg 23 rd April		
		Fractions, decimals and percentages – multiplying and dividing integers by fractions
Week Beg 30 th April		
Week Beg 7 th May		
Week Beg 14 th May	SATS Week	SATS Assessments

Week Beg 21 st May	

Week Beg 4 th June	Revision and preparation for end of year assessments	Lower group – Number and calculations, rounding All – Fractions (conversions, of amounts, mixed numbers), Line graphs, Higher – Pie Charts, co-ordinates, proportion
Week Beg 11 th June	Revision and preparation for end of year assessments	Lower group – conversions of measurements All – Geometry, measuring angles, drawing angles, calculating angles, area, perimeter and volume Higher –
Week Beg 18 th June	Assessment Week	PUMA Summer, Arithmetic tests.
Week Beg 25 th June		
Week Beg 2 nd July	Handover – School Camp	
Week Beg 9 th July	School Finishes 13th July - Break Up the following Wednesday 20 th July	