



Time: Learning around the days of the week, months of the year, routines of the day to be covered and taught during soft starts, maths meetings and discretely during maths lessons involving other units of study (ordinality and topics involving sequence).

Bush Hill Park Primary School
Long Term Plan - Termly Overview Maths 2021-2022

Year Group:		Rec	Class Teacher (s):	HK,AD	Term: Autumn
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:		Key objectives:
	Weeks 1-5 Block 1	Number	Early Number – cardinality & counting		Knowing number names – identifying and making connections between the name of the number and what that looks like in different forms/ representations. Matching/tagging a range of numerals to a given value of objects to 10.
		Number	Early Number – cardinality & counting		Explore subitising numbers and encourage estimation when knowing how many objects from a larger group of objects there are – use dots on a dice/domino/feely bag etc to know the value without counting. Counting to a given number within a group of objects and identifying that cardinal value. Making/ building blocks in different arrangements to 10. Rearranging a group of objects and not needing to count them as none have been added or taken away.
		Number	Counting within 10		Counting forwards / backwards (extend to different intervals) and starting at different numbers. Noticing missing numbers within a sequence and correcting with accuracy and justification. Use songs and rhymes to cement fluency and retain knowledge
		Number	Counting within 10/20		Value of numbers – exploring different numbers to 10 in different forms and representations – focus on reasoning and proving. Extend to 20.

		Number	Counting within 10/20	One more one less / comparing numbers/ number sequences/ ordering – noticing pattern linked to shape (there is 1 more triangle needed in the sequence). Extend to 20.
Week 6-10 Block 2		Number	Addition- Numbers within 10	Adding numbers within 10, identifying number pairs to 10 and that commutative law means the total is the same irrespective of which way round the numbers are. Knowing that $6+4 = 7+3$
		Number	Subtraction Numbers within 10	Subtracting numbers within 10. Notice patterns and make connections. Compare with addition and what's the same and what's different with the operation and the total (refer to commutative law and its absence with subtraction)
		Number	Addition and Subtraction within 10	Using and applying both operations to a variety of different contexts including links to topic work and everyday routines
		Number	Grouping and Sharing	Introduce the concept of 'halving' explaining that this is when we share items into two equal groups. Show the children a bowl of objects e.g. strawberries, grapes, buttons etc. Explain that you are going to share them into 2 equal groups. Show non-examples (unequal) too so as to understand the correct concept of 2 equal parts. Show halving one object like an apple to show 2 equal parts.
		Number	Grouping and Sharing	Grouping objects equally, into more than 2 groups so each person/teddy has the same amount (equal) Show unequal grouping and the nature of remaining object items to signify unequal. Extend to use repeated addition to signify the process. What is the role of the total? (whole)

	Week 11	Measure	Length & Height	Compare 2 different lengths and 2 different heights to establish the correct vocabulary – shorter, longer, taller, shorter. Introduce a unit of measure for e.g. blocks/cubes to assign a quantity when comparing/ordering different lengths and heights (more than 2). Use more than/less than to describe and compare measures.
	Week 12	Geometry	2D shapes	Describe the shape and size of shapes. Name circles, squares and triangles. Use ‘flat’ 2D shapes, and mathematical terms to describe shapes (how many sides, straight/curved). Select a particular named shape with confidence. Describe their relative position such as ‘behind’ or ‘next to’. Introduce different patterns of shape, justify the sequence/pattern and reason changes. Compare in full sentences different shapes – what’s the same and what’s different? Sort shapes into families.
	Week 13	Geometry	3D shapes	Begin to describe 3D shapes as ‘solid’. Find/ investigate different 3D shapes within the school environment. Use 3D shapes to print and make models. Selects a particular named 3D shape. Use familiar objects and common shapes to create and recreate patterns and build models. Make connections between 2D and 3D shapes – ‘A cube has....square faces..’ (Refer back to previous week 2D shape unit) Compare different models/ 3D shapes for similarities and differences (examples and non-examples). Sort shapes into families.
	Week 14	Number	Counting within 20	Counting forwards / backwards from any given number 1-20. Count reliably with numbers from one to 20, place them in order and says which number is one more or one less than a given number. Use the language of ‘more’ and ‘fewer’ to compare two sets of objects. Assign numerals to objects more than 10.

				Reinforce correct vocabulary in terms of 'teens'. Introduce/ extend with skip counting.
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Year Group:		Rec	Class Teacher (s):	HK,AD	Term: Spring
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:		Key objectives
	Week 1-2	Number	Numbers within 20		Recite numbers to 20 forwards and backwards using objects to support understanding. Indicate place value of 1 and 2-digit numbers, represent 10 in different forms alongside that show ones (early partitioning). Count on from given numbers. Count in 2s back and forth.
		Number	Numbers within 20		Comparing and ordering, one more one less, sequencing with missing numbers and placing a given missing number within a numberline 1-20. Estimate quantity within a group of objects.
	Week 3	Number- Addition and Subtraction	Addition within 20		Consolidate number pairs that total 10 and other bonds/pairs to 5 for e.g. Add 1 to any number. Add 2 to any number up to 20. Read the corresponding addition equation and understand the different numerical values as well as the symbols. Understand that the total in the sum of parts added. Extend to adding 3 single digit numbers together. Use vocabulary 'more'. Move onto numerical number lines.
	Week 4	Number- Addition and Subtraction	Subtraction within 20		Consolidate subtracting numbers within 10, spot patterns when subtracting one more each time. Subtract objects from groups. Consolidate understanding of 2-digit numbers to 20 and count back a desired amount to establish the new total. Use vocabulary 'less', 'fewer'. Move onto numerical number lines.
	Week 5-6	Number-Division	Grouping and Sharing		Sorting objects and pictorial representations into groups, show equal and unequal examples. Refer to

				groups being parts of a whole for addition (unequal groups possible) and equal groups linked to repeated addition.
		Number-Division	Grouping and Sharing	Sharing equally a given number into groups with a pattern of process. Extend to sharing 2 at a time. Each person haseach.
	Week 7-8	Number- Multiplication and Division	Doubling and Halving	Enforce the concept of doubling by showing objects increasing by the same amount. Distinguish between doubling and repeated addition. Use classroom investigations to reinforce correct vocabulary.
		Number- Multiplication and Division	Doubling and Halving	Recap halving everyday objects into two equal parts. Move onto halving numbers, showing in pictorial form the value halved- make connections and observations on the outcomes. Link to doubling and the inverse / reverse process. Introduce numbers that cannot be halved into two whole numbers. Demonstrate with manipulatives / pictorial representations.
	Week 9-11	Measurement	Money	Explore/create: Items for a shop, e.g. beads, jumble sale bits, sweets/cakes, small toys; money (preferably real coins); stickers; sand tray; sand; lots of different coins up to 20p – assign value to items and investigate within classroom/ topic corner. Enforce the value of each coin and those coins missing from a liner number sequence. Extend to start making amounts with different coins.
		Measurement	Money	Using the coins count in 1ps,2ps,5ps to 20. Show that two 10ps = 20p (show coin). Show that 10p can be made in different ways; 1x10p, 2x5p,5x2p,10 x 1p, 5p +2p +2p + 1p etc. Reinforce that coins only come in certain values and that we make totals from the coins we have available. Refer to repeated addition and number pairs within 10.
		Measurement	Money	Addition and subtraction through money. Return to the class shop / topic area to investigate paying for

				certain items. Children explore paying for items with a certain budget. Provide different coin denominations. Extend to paying for items greater than 20p value and with a certain number of coins i.e. pay for the teddy which is worth 15p with 5 coins. Reasoning: Find another way to...
	Week 12	Number	Counting within 50	Introduce numbers to 50 and their respective values; through objects, diagrams and pictures show value and increasing value of 10s and ones. Count numbers up to 50 forwards and back. Extend to counting in 5s and 10s.

Year Group:		Rec	Class Teacher (s):	HK,AD	Term: Summer
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives	
	Week 1-2	Number	Place Value & Addition facts	Explore and use number facts to 10 and 20. Use and apply this knowledge to number facts to 50- explore and investigate different ways. Reinforce knowledge of tens and ones and that a number with 3 tens and 1 one is greater than a number with 2 tens and 9 ones. Demonstrate addition using models, numberlines and bead strings. Varied fluency: $5 + 5 + 7 = 17$. Use doubling as part of process.	
		Number	Place Value & Subtraction facts	Explore and use number facts to 10 and 20. Use and apply this knowledge to number facts to 50- explore and investigate different ways. Consolidate knowledge of tens and ones and that a number with 3 tens and 1 one is greater than a number with 2 tens and 9 ones. Demonstrate subtraction using models, numberlines and bead strings. Extend: Show varied fluency through different equations: $14 - 3 = 11$, $24 = 27 - 3$, $18 = 30 - 12$.	
	Week 3-4	Number	Number patterns within 50	Explore different patterns within numbers to 50. Compare patterns within numbers to 20 with those of numbers to 50. Use balanced equations: $10 + 10 = 5 + 5 + 5 + 5$ because... $2 + 3 = 5$ therefore $20 + 30 = 50$.	
		Number	Number patterns within 50	Show patterns in a variety of different ways; through decreasing and increasing parts of the equation. Explore number sequences – ascending and descending; what can be noticed? Create generalisations about the patterns created. Focus on reasoning and problem solving to show depth of understanding.	



	Week 5-6	Geometry	2D shapes	Name/label, Sort and Classifying 2D shapes of different sizes, colours etc: Circle, square, triangle, rectangle, pentagon, hexagon, octagon (focus on the properties of the newly introduced shapes) Reason why certain shapes have commonalities (prove) and vary the classification criteria i.e. shapes with straight sides and without and shapes with four corners or more and shapes with less than 4 corners. Use vocabulary such as longer, shorter, straight, curved, sides, corners. Draw basic 2D shapes.
		Geometry	3D shapes	Link 3D shapes to 2D shapes explored in the previous week. What makes them linked? Find 3D objects within the school environment to name, sort and classify. Construct 3D towers and composite shapes- discuss features and properties of these. Link to topic work and art in terms 3D shape artwork. Carry out problem solving investigations to deepen understanding of the variety of shapes, especially those introduced within this unit (Sphere, cylinder, cone, square-based pyramid).
	Week 7	Number- Division	Grouping and Sharing	Group objects up to 20 in different ways. From a total for e.g. 20, how many different ways can it be grouped equally. Develop concept into abstract form $4 \text{ lots/groups of } 5 = 20$, $4 \times 5 = 20$. Extend to grouping within 50. Link sharing process to a story and the characters sharing equally. Sharing equally between 2 means halving the total and sharing between 3 or 4 means sharing with 3 or 4 different characters equally. Using a visual model show the differing ways to divide – share/group and allow the children to explore different ways.

	Week 8	Number- Multiplication and Division	Doubling and Halving	Build on prior knowledge and focus on odd one outs and matching numbers that can be halved/doubled. Show/demonstrate with different models/examples for deeper understanding.
	Week 9 - 10	Number	The four operations (transition Y1)	Repeat certain procedural methods for all operations covered this year. Vary procedures to show depth and flexibility.
		Number	The four operations (transition Y1)	Solve problems in familiar and unfamiliar contexts that involve adding inc. repeated addition, doubling and halving, subtracting, dividing equally.
	Week 11 - 13		Problem solving and investigation	Problem solving and using and applying inc. money, time, length and height.
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Year Group:		1	Class Teacher (s):	JM, EC	Term: Autumn
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives:		
Weeks 1-3	Number	Place Value	Count to 20, forwards and backwards, beginning with 0 or 1, or from any given number. Oracy focus, counting in varying intervals. Focus on missing numbers/deliberate mistakes within the sequence to elicit understanding and reasoning. <i>Ready to progress: (cardinality and pattern within number – YrR focus)</i>		
	Number	Place Value	Count, read and write numbers to 20 in numerals and words. 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. Order numbers sequentially. <i>Ready to progress: (cardinality and pattern within number – YrR focus)</i>		
	Number	Place Value	Given a number, identify one more or one less. Introduce different models to represent and show one more one less through subtracting from one group of two equal groups, by adding one on to a group, through a numberline example. Show what happens when one is added to 9 or 19- demonstrate the concept of 10s using 'chips and peas' and the grouping of ones into 10s.		
Week 4-7	Number	Addition and Subtraction	Represent and use number bonds and related subtraction facts within 20.		
	Number	Addition and Subtraction	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.		
	Number	Addition and Subtraction	Add and subtract one/two-digit numbers to 20, including zero. Make reference to known facts and number bonds. Explore/compare different ways to calculate and understand addition and subtraction, investigate concept of difference compared to subtracting – explore pictorial/concrete examples, varying the way the concept is presented and tackled as one problem.		

		Number	Addition and Subtraction	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.
	Week 8-9	Number	Place Value	Consolidate counting to 20, forwards and backwards, beginning with 0 or 1, from any given number. Reinforce understanding of different ways the numbers can be represented to understand the cardinality of a given number (pictorial/concrete models) Second part of the week, move onto counting to 50 in varying intervals. Emphasis on the number getting greater also the ordinality of it.
		Number	Place Value	Count, read and write numbers to 50 in numerals and words. Given a number, identify one more or one less. Reinforce and consolidate the application of mathematical vocabulary and language that supports reasoning and full sentence explanation (equal to, less than etc.)
	Week 10-11	Number	Addition and subtraction	Represent and use number bonds and related addition & subtraction facts within 50. Dive deeper into conceptual variation of numbers to 50. Order and compare numbers to 50. Create generalisations and investigate patterns.
		Number	Addition and subtraction	Add and subtract one-digit and two-digit numbers to 50, including zero. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems
	Week 12	Measurement	Money	Recognise and know the value of different denominations of coins and notes. Applying knowledge of addition and subtraction to different contexts (money). Explore different ways to make 20p. Extend to know How much change do I receive from 20p if 2 items cost 14p. Link to shop (topic area of interest)
	Week 13	Measurement	Length and Height	Introduce units of measurement for length and height (cm/m); measure and begin to record lengths and heights. Introduce the relevant sentence stems for full mathematical sentences.

	Week 14	Geometry	2D shapes	Recognising 2D shapes- squares, rectangles, triangles and circles in different orientations/size. Establish vocabulary and language around the shapes and begin to ascertain properties- commonalities and differences.
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Year Group:		1	Class Teacher (s):	JM, EC	Term: Spring
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives		
Week 1-2	Number	Place Value	Count to 100 forwards and backwards, beginning with 0 or 1, or from any number. 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.		
	Number	Place Value	Count, compare, order, read and write numbers to 100 in numerals. Given a number, identify one more or one less. Extend to 10 more/10 less, 5 more/5 less. Explore odd, even and number patterns with numbers to 100		
	Measurement	Length and Height	Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) greater, less than language transferred from earlier topics. Apply PV knowledge when comparing and reasoning length/height		
	Geometry	3D shapes	Recognise and name common 3-D shapes, including: (for example, cuboids (including cubes), pyramids and spheres.) Make links to the 2D shapes within the 3D ones. Introduce language such as: face, side, corner/vertex, curved/straight		
Week 5-6	Number	Multiplication and division	Count in multiples of twos, fives and tens. Spot pattern within the number sequences and begin to create generalisations around the different multiplications. Introduce vocabulary and mathematical sentence stems to explain and reason.		
	Number	Multiplication and division	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. Explore varied procedure and conceptual understanding – groups of, shared into.		

	Week 7	Number	Place value	Revisit and build upon prior knowledge and understanding around numbers to 100. Begin to explore different ways to make 100. Balancing equations and proving / disproving statements using sentence stems.
	Week 8	Number	Multiplication and division	Consolidate knowledge of twos, fives and tens. Make links and begin to explore doubling numbers up to 100
	Week 9-10	Number	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. Focus on vocabulary around what is 'equal' what is 'whole' and what are 'parts'.
		Number	Fractions	Explore halves and quarters as a way of measuring and reasoning comparative measures (link to previous topics around measure) half-full, half-the-length.
	Week 11-12	Measurement	Weight and Volume	Measure and begin to record mass/weight, capacity and volume. Introduce new language for units of measure and explore items that could be weighed / measured for volume. Compare the differences between; weight, volume, length and height (as covered earlier in the term)
		Measurement	Weight and Volume	Compare, describe and solve practical problems for mass/weight: for example, heavy/light, heavier than, lighter than; capacity and volume for example, full/empty, more than, less than. Use measuring apparatus to represent the process of measuring & comparing and using the language sentence stems inc. heavier, lighter etc

Year Group:		1	Class Teacher (s):	JM, EC	Term: Summer
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:		Key objectives
	Week 1-2	Number	Place Value		Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Extend to count in larger intervals forwards and backwards to 100. Notice patterns within sequences and continue sequences/identify missing numbers up to 100
		Number	Place Value		One more, one less than a number to 100. 10 more and 10 less – focus on the place value holder and identify what changes/what stays the same. Compare numbers using sentence stems greater than, less than, most, least, fewer etc.
	Week 3-4	Number	Addition and Subtraction		Adding and subtracting numbers to 100. Use the part-part whole model / bar models to represent the equations.
		Number	Addition and Subtraction		Calculating equations involving addition and subtraction inc. missing numbers in the equation (within 10 not bridging it). Make reference to prior knowledge around number facts to make methods more efficient.
	Week 5	Measurement	Money		Revisit money and knowing the value of different denominations of coins and notes. Begin to make different combinations of coins to total a given amount (consolidate addition and subtraction skills from previous unit) Explore vocabulary 'change', 'exchange' amounts for equal alternatives and spot patterns linked to multiplication (lots of)
	Week 6	Geometry	Position and Direction		Describe position, direction and movement, including whole, half, quarter and three quarter turns
	Week 7-8	Measurement	Time		Sequence events in chronological order using language for example: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. Recognise and use language relating to dates, including days of the week, weeks, months and years
		Measurement	Time		Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Measure and begin to record time (hours, minutes, seconds) Use sentence stems that include past, hour, o'clock, half past, Extend to quarter to, quarter past. Emphasise counting /



				oracy around counting up and back in intervals of 5 and 10 up to 60.
	Week 9	Number	Multiplication and division	Revisit arrays and explore the parts of the multiplication /division equation.
	Week 10-11	Number	Fractions	Revisit what a half looks like, understand the process/concept of dividing something by 2. Develop understanding of halving whole numbers and shapes. Emphasise the idea of equal number of parts within the whole. Develop concept by moving onto quarters and dividing by 4. Make links to halving and halving again.
		Number	Fractions	Finding fractions of quantities and real-life problems involving fractions. Explore a range of topic areas inc. time, money, length, weight and volume problems.
	Week 12		Consolidation of concepts taught/ gaps addressed from assessment in readiness for Year 2	



Year Group:		2	Class Teacher (s):	AL,MO,NB	Term: Autumn
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives:		
Weeks 1-2	Number	Place Value	Read and write numbers to at least 100 in numerals and in words. Recognise the place value of each digit in a two-digit number (tens, ones) <i>see ready to progress on MTP for Year 1 prerequisites recap Yr1 objectives in: lessons 1 and 2 only</i>		
	Number	Place Value	Identify, represent and estimate numbers using different representations including the number line. Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs.		
Week 3-5	Number	Addition and Subtraction	Recall and use addition and subtraction facts to 20 with automaticity, and derive and use related facts up to 100 as the next step. Multiples of 10 number pairs to 100 and extend to more complex equations that total 100, 2 part/3 part models (variety of e.gs)		
	Number	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; two two-digit numbers; adding three one-digit numbers.		
	Number	Addition and Subtraction	Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.		
Week 6	Measurement	Length	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) Compare and order lengths using symbols $<$, $>$ =		
Week 7-8	Number	Multiplication & Division	Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them		

				using the multiplication (x), division (\div) and equals (=) sign.
		Number	Multiplication & Division	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
	Week 9-10	Number	Addition and subtraction	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
		Number	Addition and subtraction	Represent and solve calculations and problems using different models such as bar-model
	Week 11-12	Measurement	Money	Find different combinations of coins that equal the same amounts of money. Find the most efficient way to a certain amount and reason and problem solve with different values inc. finding missing amounts /coins (values). Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.
		Measurement	Money	Solve problems (one-step but extend to multi-step) in a practical context involving addition and subtraction of money of the same unit, including giving change. Refer to previous addition and subtraction unit – build on progress made-consolidate skills/ methods
	Week 13-14	Statistics	Graphs	Interpret and construct simple pictograms, tally charts, block diagrams and tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
		Statistics	Graphs	Tackle more complex questions surrounding the data and solve problems using the data presented in graphs. Construct own graphs to present data from a given investigation (<i>links to current Science/History/Geography topic</i>)



Year Group:		2	Class Teacher (s):	AL,MO,NB	Term: Spring
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives		
Week 1-2	Number	Place Value	Recognise the place value of each digit in a two-digit number (10s, 1s) with numbers up to 100 Compare and order numbers up to 100 Counting up and back from 100 in various intervals		
	Number	Place Value	Use place value and number facts to solve problems		
Week 3-6	Geometry	Properties of shape	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. What's the same what is different? Define shapes through examples and non-examples.		
	Geometry	Properties of shape	Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. Make links to 2-D shapes- faces.		
	Geometry	Properties of shape	Identify 2-D shapes on the surface of 3-D shapes, for example, a circle on a cylinder and a triangle on a pyramid. Classify the shapes.		
	Geometry	Properties of shape	Compare and sort (Venn/Carroll diagrams) common 2-D and 3-D shapes and everyday objects.		
Week 7-9	Fractions	Fractions of amounts	Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.		
	Fractions	Fractions of amounts	Write simple fractions for example, $\frac{1}{2}$ of 6 = 3		
	Fractions	Equivalent fractions	Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. Link to doubles and halving		
Week 10	Measurement	Time	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.		

				Know the number of minutes in an hour and hours in a day
	Week 11	Measurement	Mass	Choose and use appropriate standard units to estimate and measure mass (g/kg) Compare and order mass using >, < and =
	Week 12	Measurement	Capacity	Choose and use appropriate standard units to estimate and measure capacity (ml/l) Compare and order capacity using >, < and =

Year Group:		2	Class Teacher (s):	AL,MO,NB	Term: Summer
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:		Key objectives
	Week 1	Number	Place Value		Recognise the place value of each digit in a two-digit number (10s, 1s) with numbers up to 100 Compare and order numbers up to 100, Partition numbers Counting up and back from 100 in various intervals
	Week 2	Number	Addition and Subtraction		using concrete objects and pictorial representations, including those involving numbers, quantities and measures Applying their increasing knowledge of mental and written methods to a variety of contexts
	Week 3-4	Geometry	Position and direction		Use mathematical vocabulary to describe position, direction and movement including movement in a straight line, explore simple instructional movement
		Geometry	Position and direction		Distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).
	Week 5-6	Number	Multiplication and Division		Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Make connections between certain multiples. Doubling and halving numbers
		Number	Multiplication and Division		Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
	Week 7-8	Fractions	Identify, Compare & order fractions		Identify fractions in different forms / representations / link to division
		Fractions	Fractions of amount		Find fractions of amounts / objects
	Week 9	Measurement	Time		Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to



				<p>show these times. Recall known facts associated with time</p> <p>Solve more complex problems involving time – explore quarter to, 10 to, 5 to. Notice that the hour hand moves with the increasing minutes within the hour</p>
	Week 10-13		Consolidation/gap filling (in readiness for Yr3)	



Year Group:		3	Class Teacher (s):	RP, YP	Term: Autumn
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives:		
Weeks 1-3	Number	Place Value	Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. Recognise the value of the 0 place holder. <i>(Ready to progress Year2 NPV)</i> Extend to 3-digit numbers and relate to solving problems involving 2-3 digit numbers.		
	Number	Place Value	Order and compare 2-digit numbers with reasoning about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10. Use $<$ $>$ $=$ symbols. Order smallest to largest and vice versa. <i>(Ready to progress Year2 NPV)</i> Extend to 3-digit numbers.		
	Number	Place Value	Identify, represent and estimate numbers using different representations. Find 10 or 100 more or less than a given number; recognise the place value of each digit (hundreds, tens and ones).		
Week 4-7	Number	Addition and Subtraction	Secure fluency in addition and subtraction facts within 10, through continued practice. <i>(Ready to progress Year2 NF)</i> Counting to 50 in multiples of 2,5 and 10, link to repeated addition and subtracting in given intervals.		
	Number	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 hundreds. Apply knowledge of number facts to support process.		
	Number	Addition and Subtraction	Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?". <i>(Ready to progress Year2 AS)</i> . Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. Estimate the answer to a calculation and use inverse operations to check answers.		

		Number	Addition and Subtraction	Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction problem solving that involves familiar and unfamiliar real-life contexts.
	Week 8-10	Number	Multiplication and Division	Ensure recall and oracy opportunities for 2,5,10 consolidation and retention of understanding that multiples are repeated addition (<i>Ready to progress Yr2 MD</i>) Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Spot patterns and identify and make connections between certain tables (4,8)
		Number	Multiplication and Division	Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
		Number	Multiplication and Division	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context. Use variation of concept to deepen understanding. Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division). (<i>Ready to progress Yr2 MD</i>)
	Week 11-12	Number	Fractions	Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing one-digit numbers or quantities by ten. Emphasise importance of equal parts and a range of models/representations to show the same fraction
		Number	Fractions	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Find equivalent fractions for a half. Recognise, find and write fractions of a discrete set of objects; unit fractions and non-unit fractions with small denominators. Create generalisations based on connections and conceptual knowledge around fractions.
	Week 13-14	Measurement	Money	Revisit the different denominations (coins and notes) and key connections/rules; $\text{£}1.20 = 120\text{p}$, divide by 100 to find £ . Add and subtract amounts of money to give change, using both £ and p in practical contexts. Find various

				ways/coins to make an amount. <i>Recap addition and subtraction methods from previous topic in Yr3.</i>
		Measurement	Money	Explore problems involving money within a range of contexts, applying use of multiplication, division, fraction of amounts and addition and subtraction.



Long Term Topic Plan - Termly Overview

Year Group:		3	Class Teacher (s):	RP, YP	Term: Spring
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives		
Week 1-2	Number	Place Value	Oracy focus; Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. Recap the PV of each digit in a 3-digit number		
	Number	Place Value	Estimate and round numbers to 10,100,1000. Make statements explaining and justifying (reasoning) to cement understanding. Solve a variety of practical problems involving PV		
Week 3-4	Number	Addition and Subtraction	Add and subtract numbers mentally using prior number fact knowledge from KS1		
	Number	Addition and Subtraction	Formal written methods for calculation and variation of representation – bar model, part, part whole model. Estimate and check using inverse operation		
Week 5-6	Geometry	Properties of Shape	Draw 2D shapes and make 3D shapes using modelling materials. Recognise 3D shapes in different orientations and describe them		
	Geometry	Properties of Shape (Angles and lines)	Recognise angles as a property of shape or a description of a turn. Identify right angles, recognise that two right angles make a half-turn, three make a quarter-turn and four a complete turn; identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines		
Week 7-8	Number	Multiplication and Division	Doubling and halving (Yr2 objective) 2-3 digit numbers through partitioning. See that x4 is doubling and doubling again and vice versa for division.		
	Number	Multiplication and Division	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to		

				formal written methods (expand procedural skills/ methods)
	Week 9	Number	Addition and Subtraction	Recap and secure mental and formal written methods for addition and subtraction. Apply to a variety of contexts and real-life problems
	Week 10	Measurement	Mass and Capacity	Measure, compare, add and subtract mass (kg, g) and volume/capacity (l, ml)
	Week 11-12	Statistics	Interpreting data	Interpret and present data using bar chart, pictograms (of different numerical value for 1 pic) and tables. Extend to drawing own charts, focus on scaling the y axis with consistent intervals. Link to counting in intervals of 2,5 and 10. <i>Link to current Science topic and presenting data</i>
		Statistics	Solving problems based on data charts	Solve one-step and two-step questions (for example, 'how many more?' and 'how many fewer?') using information presented in scaled bar charts and pictograms and tables.

Year Group:		3	Class Teacher (s):	RP, YP	Term: Summer
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:		Key objectives
	Week 1-2	Number	Place Value		Identify the place value of each digit within a 3-digit number, partition the number to see the value of each part in relation to the whole. Sentence stem: the 9 in the 10s column represents 90, this is less than the 1 in 100s column which represents 100 – 100 is 10 more than 90, I know this because...
		Number	Place Value		Compare and order numbers up to 1,000. Read and write numbers up to 1,000 in numerals and words. Solve number problems and practical problems involving these ideas. Count from 0 in multiples of 50 and 100.
	Week 3	Number	Multiplication and Division linked to PV		Multiply by 10,100 and divide by 10,100 to make numbers 10 times bigger/smaller. Make reference to this becoming a tenth of the previous number when dividing by 10
	Week 4-5	Number	Fractions		Compare and order unit fractions, and fractions with the same denominator, use < > = to satisfy mathematical statements and solidify understanding. Explore equivalent fractions for a half and a quarter using =. Sentence stems: I know $\frac{3}{6} = \frac{4}{8}$ because (master's glasses)
		Number	Fractions		Add and subtract fractions with the same denominator within one whole (for example $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)
	Week 6	Measurement	Length & Perimeter		Measure, compare, add and subtract lengths (mm, cm, m) within the context of perimeters (of 2D shapes) Make reference to different dimensions to measure, distance, definitions and what's the same and what's different?
Week 7-8	Measurement	Time		Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. Estimate and read time with increasing accuracy to the nearest minute. Record and compare time in terms of seconds, minutes and hours. Use sentence stem vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. Know the number of seconds in a minute and the number of days in each month, year and leap year. <i>Link to science topic recording timed results (forces parachute task)</i>	
	Measurement	Time		Compare duration of events, begin to explore timetables and timelines as well as other time related problems within a real-life context. Focus on reasoning and problem solving	



		Number	Fractions	Recap counting 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
	Week 9-10	Number	Fractions	Recap and consolidate knowledge and application of ordering, comparing fractions with the same denominator. Order fractions (within missing parts on the number line) and focus on sentence stems for reasoning; I know that/ I can explain that, I can justify why Compare equivalent fractions – half, quarter, three-quarters (to extend)
	Week 11	Number	Addition and Subtraction	Solve problems involving adding and subtracting, applying mental and formal written methods to a range of contexts covered over the year (time, mass & capacity, length & perimeter)
	Week 12		Consolidation of concepts taught/ gaps addressed from assessment in readiness for Year 4	



Year Group:		4	Class Teacher (s):	TP, SH	Term: Autumn
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives:		
Weeks 1-3	Number	Place Value	Oracy focus: count in multiples of 6, 7, 9, 25 and 100. Focus on number sequencing and justification within missing number lines. Spot patterns with sequencing and between the different multiple sequencing. Order and compare numbers being explored. <i>Reason the location of number within 3-digits -ready to progress Y3</i>		
	Number	Place Value	Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s and 1s). Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10 (<i>ready to progress Yr3 PNV</i>) Extend to 1000 as progression		
	Number	Place Value	Identify, represent and estimate numbers using different representations. Round numbers up to 1000 to the nearest 10,100,1000. Order and compare numbers to 1000, identifying 10,100,1000 less than, more than.		
Week 4-6	Number	Addition and Subtraction	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. <i>Build from three-digit addition/subtraction as a foundation. Secure number facts that bridge 10/100 (ready to progress Y3)</i>		
	Number	Addition and Subtraction	(Using the formal written methods of columnar addition and subtraction where appropriate) Estimate and use inverse operations to check answers to a calculation, apply rounding skills to show efficiency with this skill.		
	Number	Addition and Subtraction	Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.		
Week 7-8	Measurement	Length and Perimeter	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres (to scale) and metres (not to scale). Ascertain a formula to apply to all P		

				problems and link it to repetitive methods for calculation. Extend to compound shapes
		Measurement/ Number	Length and Perimeter & Multiplication and Division	Convert between different units of measure km to m, m to cm, cm to mm using multiplication and division methods linked to PV. Apply knowledge to a variety of perimeter and length problems. If the P is.....What are the dimensions?
	Week 9-11	Number	Multiplication and Division	Recall and use multiplication and division facts for multiplication tables up to 12×12 . Make links between certain tables and emphasise importance of learning these in readiness for MTC. Use flashcards for oracy and conceptual problems/ variation of task to assist in gaining a deeper understanding of multiplication (in different forms/representations)
		Number	Multiplication and Division	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. Use the distributive law- Example: $3 \times (2 + 4) = 3 \times 2 + 3 \times 4$ to show different ways to represent and calculate
		Number	Multiplication and Division	Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.
	Week 12-14	Number	Fractions	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Link to decimals equivalents
		Number	Fractions	Recognise and show, using diagrams, families of common equivalent fractions. Reason why equivalent fraction share commonality. Extend to reference factors / multiples
		Number	Fractions	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.



Long Term Topic Plan - Termly Overview

Year Group:		4	Class Teacher (s):	TP, SH	Term: Spring
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives		
Week 1-2	Number	Place Value	Order and compare numbers beyond 1000. Identify, represent and estimate numbers using different representations. Round numbers to nearest 10,100,1000		
	Number	Place Value	Count back through 0 to include negative numbers, explain what is the same and different about negative and positive numbers, what's the same and what's different?		
Week 3-4	Number	Addition and Subtraction	Mental strategies for calculation, apply known number facts to tackle problems where parts of sum are missing, focus on fluency and arithmetic. Formal written methods for addition and subtraction (adding/subtracting 3-4 digit numbers) Estimate/ Check using inverse		
	Number	Addition and Subtraction	Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why. Focus on proving efficiency		
Week 5-6	Measurement	Time	Read, write and convert time between analogue and digital 12- and 24-hour clocks. Introduce quarter to/past. 10 to, 5 to/past. Emphasise how the hour hand moves when the minute hand does. Link to turn – quarter/half, three quarter.		
	Measurement	Time	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. Explore simple timetables. Compare times – would you rather? shortest time sometimes the best (races). Duration between two given times –length of a programme.		
Week 7-8	Number	Multiplication and Division	Oracy focus; Recall and use multiplication and division facts for multiplication tables up to 12×12 . Use and apply if you know...then you know.		

		Number	Multiplication and Division	Recognise and use factor pairs, how are they different to stand-alone factors? commutativity in mental calculations. How they link to products. Find pattern and make connections
	Week 9	Measurement	Area	Find the area of rectilinear shapes by counting squares. (cm/m) Extend to Compare with perimeter, link to arrays and commutative law and the squared nature of the unit of measure. Reference factors
	Week 10-12	Number	Division and Fractions	Find the effect of dividing a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths. Add and subtract fractions with the same denominator
		Number	Fractions & Decimals	Recognise and write decimal equivalents of any number of tenths or hundredths. Link to dienes and concrete and pictorial representations. Compare & order numbers with the same number of decimal places up to two decimal places, use $<$ $>$ $=$. Round decimals with one decimal place to the nearest whole number. Extend to 2.d.p rounding to nearest tenth
		Number	Fractions & Decimals	Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$. Explore problems involving fraction of quantity – find quarter, half and three-quarters of a given amount

Year Group:		4	Class Teacher (s):	TP, SH	Term: Summer
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives	
	Week 1-2	Number	Place Value	Identify place value of each digit in a 4-digit number inc. numbers that have decimals – use models and a variety of representations to show depth of understanding (whole/decimal)	
		Number	Place Value	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. Extend to calculating using Roman numerals	
	Week 3	Number	Addition and Subtraction	Addition and subtraction of decimal numbers up to 2.d.p. Link and revisit connection with fractions – tenths and hundredths	
	Week 4	Measurement	Money	Estimate, compare and calculate different measures, including money in pounds and pence. Solve simple measure and money problems involving fractions and decimals to two decimal places.	
	Week 5-6	Geometry	Properties of shape	Identify acute and obtuse angles and compare and order angles up to two right angles by size. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.	
		Geometry	Properties of shape	Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry.	
	Week 7-8	Number	Multiplication and Division	Oracy focus: Recall and use multiplication and division facts for multiplication tables up to 12×12 (in preparation for MTC) Focus on multiplication tables that require further consolidation – low stakes quizzes, games etc.	
Number		Multiplication and Division	Solve problems within a range of contexts where dividing by 2,4,5,10 are frequent, make connections to finding a quarter, fifth, half, tenth of a given quantity. Represent in a variety of forms inc. bar model.		
	Week 9	Number	Fractions	Revisit equivalent fractions and ordering, comparing and adding and subtracting fractions with the same denominator. Extend to comparing fractions with differing denominators	
	Week 10	Geometry	Position and Direction	Describe positions on a 2-D grid as coordinates in the first quadrant. Plot specified points and draw sides to	



				complete a given polygon. Describe movements between positions as translations of a given unit to the left/ right and up/ down. Justify translations and generalise rules around translation and plotting using co-ordinates
	Week 11	Statistics	Charts and graphs	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.
	Week 12-13		Consolidation of concepts taught/ gaps addressed from assessment in readiness for Year 5	



Year Group:		5	Class Teacher (s):	MR,SA,AW,KM	Term: Autumn
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives:		
	Weeks 1-3	Number	Place Value	Recognise value of each digit within 5 & 6-digit numbers to evaluate understanding of PV. Use partitioning to show value and parts of whole numbers. Find a range of values for digits within a 6-digit number. Count forwards or backwards in steps of powers of 10 for any given number up to and inc. 100,000s.	
		Number	Place Value	Introduce the 7 th Digit (million), indicate the value of it compared to other digits Read, write, order and compare numbers to at least 1000000 and determine the value of each digit (based on previous week) Use <=> . Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000.	
		Number	Place Value	Solve number problems and practical problems that involve all of the above. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals- solve equations involving Roman numerals.	
	Week 4-5	Number	Addition and Subtraction	Add and subtract numbers mentally with increasingly large numbers. Explore equations with missing numbers to develop the pupils' understanding of the relationship between addition and subtraction and the inverse operation.	
		Number	Addition and Subtraction	Add and subtract whole/decimal numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, the level of accuracy. Extend to application in terms of problem solving and real-life contexts.	
	Week 6-8	Number	Multiplication and Division (Measurement - length)	Multiply and divide whole numbers by 10, 100 and 1000: In context, convert between different units of measure km to m, m to cm, cm to mm using multiplication and	

				division methods linked to PV. Extend to word problems and real-life length problems.
		Number	Multiplication and Division	Multiply and divide numbers mentally drawing upon known facts. Break down trickier calculations into simpler more logical steps. Consider relationships between multiplying / dividing by 2,4 and 8. Also multiplying by 10 to assist with multiplying by 9 and so on etc. Move on to more formal written methods for multiplication and division. Use mental/ number facts to support calculations where formal written methods apply (long multiplication / division methods).
		Number	Multiplication and Division	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3). Use visual and model representations to explain and explore the concepts deeper. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.
	Week 9-10	Measurement	Perimeter and Area	Measure and calculate the perimeter of composite rectilinear shapes in cm and m. Review the formulae for P and apply to different problems. Explore different shapes – both regular and irregular (to scale and not to scale). Introduce the formulae for area and demonstrate the concept using surface area (inc. cm/mm squares- cm ² , mm ² , m ²) and by using shapes/diagrams not to scale. Explore using regular and compound shapes.
		Measurement	Perimeter and Area	Dive deeper into concept to find missing dimensions, given the P and A already known. Compare P and A and create generalisations and reasoning to support understanding. Extend to real-life problems and contexts involving P and A – comparing, noticing patterns, connections to squared numbers etc.
	Week 11-13	Number	Fractions	Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. Read and write decimal numbers as fractions, for example $0.71 = 71/100$. Count forward and

				back in differing fraction intervals. Extend to skip counting.
		Number	Fractions	Compare and order fractions whose denominators are multiples of the same number. Use $<$ $>$ $=$. Extend to ordering fractions where mixed numbers are present i.e. sequences greater than 1. Create generalisations and make connections with the pattern and sequencing of certain fraction number lines.
		Number	Fractions	Add and subtract fractions with the same denominator and denominators that are multiples of the same number. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example $2/5 + 4/5 = 6/5 = 1$ and $1/5$].
	Week 14		Consolidation of previous learning/ gaps ascertained from recent assessment	



Long Term Topic Plan - Termly Overview

Year Group:		5	Class Teacher (s):	MR,SA,AW,KM	Term: Spring
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives		
Week 1-2	Number	Place Value	Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. 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.		
	Number	Place Value	Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000. Apply PV and rounding to a variety of familiar and unfamiliar contexts in the form of problem solving and reasoning.		
Week 3-4	Number	Addition and Subtraction	Add and subtract whole numbers with more than 5 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, the levels of accuracy.		
	Number	Addition and Subtraction	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Find missing numbers/mistakes within formal written calculations.		
Week 5-7	Number	Multiplication and Division	Multiply and divide numbers mentally drawing upon known facts. Multiply numbers up to 4 digits by a one or two-digit number using a formal written method, including long multiplication for 2-digit numbers		
	Number	Multiplication and Division	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 – r1,1/8,?.125.		
	Number	Multiplication and Division	Explore problems involving multiplication and division, apply methods practised. Reason when and why		

				remainders are not appropriate to use (in objects that cannot be divided) Reason solutions to a range of situations. Ensure skills for checking accuracy are correctly used and applied to strengthen competency. Extend to multi-step problems involving more than one operation.
	Week 8-10	Number	Fractions, Decimals and Percentages	Read, write, order and compare numbers with up to three decimal places. 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. Solve problems up to 3.d.p. Extend by converting improper fractions into decimals understanding that this will correspond to a decimal greater than 1.
		Number	Fractions, Decimals and 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. Make links between fraction, decimal and percentage equivalents – how can these be grouped/classified?
		Number	Fractions, Decimals and Percentages	Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25. Extend to finding 1,10 and 50% of a given quantity. If I know how to find 10%, how can I use that to find what 20% would be?
	Week 11-12	Statistics	Interpreting data- line graphs	Solve comparison, sum, difference and range problems using information presented in a line graph (continuous data). Create own line graphs focusing on scaling and accuracy around plotting.
		Statistics	Interpreting time tables	Recap key rules around time; 24-hour/12-hour clock (am/pm) mins in an hour etc. Complete, read and interpret information in tables including timetables. Apply addition / subtraction skills to understanding train/bus time tables and problems in context.

Year Group:		5	Class Teacher (s):	MR,SA,AW,KM	Term: Summer
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives	
	Week 1-2	Number	Place Value – powers of 10	Review PV up to 1000000. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.	
		Number	Decimals – all four operations	Use all four operations to solve decimal number problems within the contexts of measure: money, volume, length, mass, capacity and time.	
	Week 3-4	Geometry	Properties of shape	Identify 3D shapes, including cubes and other cuboids, from 2D representations. Distinguish between regular and irregular polygons based on reasoning about equal sides, angles and other known properties. Use the properties of rectangles to deduce related facts and find missing lengths and angles. Reinforce vocabulary associated with different lines – perpendicular, parallel, adjacent etc	
		Geometry	Properties of shape - Angles	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles and draw upon known facts to distinguish. Draw given angles, and measure them in degrees (o) using protractors accurately. Identify: angles at a point and one whole turn (total 360o), angles at a point on a straight line and ½ a turn (total 180o) other multiples of 90o. Calculate missing angles from given information on diagrams/polygons.	
Week 5	Number	Fractions	Multiply proper fractions and mixed numbers by whole numbers, convert mixed numbers into improper fractions and vice versa. Explain concept and enable understanding by using concrete materials and diagrams/models. Apply to different contexts inc. measure (mass, capacity).		
Week 6	Measurement	Converting units	Convert between different units of metric measure, for example, km and m; cm and m; cm and mm; g and kg; l and ml. Use decimals to show equivalencies for e.g. 10cm = 0.1m. To understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.		
Week 7-8	Measurement	Volume	Estimate volume for example using 1cm ³ blocks to build cuboids (including cubes) and capacity for example, using water. Introduce the 3 rd dimension of height (volume).		



				Refer to cubed numbers and begin to solve equations involving cubed numbers.
		Measurement	Volume	Use all four operations to solve problems involving cubed numbers in a variety of contexts. Explore Problem solving and reasoning skills to investigate problems involving volume and capacity.
	Week 9-10	Geometry	Position and Direction	Recap the key features of working in all 4 quadrants. Label axis and revisit co-ordinates and rules around co-ordinates. Model heavily and allow chn to Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language and tools, furthermore to know that the shape has not changed. Focus on accuracy and model carefully how to reflect a shape using mirror lines at various angles (vertical, horizontal, diagonal)
		Geometry	Position and Direction	Solve problems and practise reflecting and translating with and without co-ordinates as a given. Focus on direction and instructions for accurate translation where co-ordinates are not applied.
	Week 11-12		Consolidation of concepts taught/ gaps addressed from assessment in readiness for Year 6	
			Consolidation of concepts taught/ gaps addressed from assessment in readiness for Year 6	



Autumn term: Ratio and proportion to be taught/consolidated during maths meetings and during soft-start. 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.

Bush Hill Park Primary School
Long Term Plan - Termly Overview Maths 2021-2022

Year Group:		6	Class Teacher (s):	KO, AB, TC	Term: Autumn
Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives:		
Weeks 1-4	Number	Place Value	Read and Reason the location and justify the value of any digit within numbers up to and including 6-digits. Extend to 7-digit numbers. Order numbers up to 7-digits		
	Number	Place Value	Read, write, compare numbers up to 1,000,000 and determine the value of each digit. Extend to 10,000,000, 1000 more/less, 100,000 more/ less than a given number.		
	Number	Place Value	Divide powers of 10, from 1 hundredth to 10 million. Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01. <i>(ready to progress – Y5 NPV)</i>		
	Number	Place Value	Round any whole and decimal number (3.d.p) to a required degree of accuracy. Focus on rounding to a variety of different powers of 10 within a range of different numbers up to 10,000,000		
Week 5-6	Number	Number facts & Addition and Subtraction	Secure understanding of counting forwards and backwards from any given number up to 7-digits (vary intervals). Perform mental calculations, using known facts and prior knowledge. If I know...then I know...Introduce BODMAS and the order to calculate equations with a variety of operations.		

		Number	Addition and Subtraction	Formal written methods for Addition and Subtraction. Use practical problems in context as stimulus for selecting the appropriate methods, acknowledging efficiency and accuracy. Estimate and check calculations using inverse. Extend to multi-step problems in a variety of contexts. Provide model/frames for different representations of sum/calculation and proof.
	Week 7-10	Number	Multiplication and Division	Multiplication facts up to 12×12 . Consolidate understanding of all the times tables and relevant number facts associated if I know 9×12 , then I know 90×12 . Deepen understanding of square and cubed and prime numbers.
		Number	Multiplication and Division	Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication. Ensure correct terminology of multiplying by 10, not add a zero. Similarly, use correct place value term when dealing with digits in the tens/hundreds/thousands column.
		Number	Multiplication and Division	Divide numbers up to 4 digits by a 2-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. <i>Build on knowledge from Y5.</i>
		Number	Multiplication and Division	Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of SHORT division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context
Week 11-14		Number	Fractions, Decimals and Percentages	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
		Number	Fractions, Decimals and Percentages	Compare and order fractions, including fractions greater than 1 (mixed numbers/improper fractions) Generate and describe linear number sequences (with fractions)
		Number	Fractions, Decimals and Percentages	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Focus on factor pairs to support with simplification of fractions
		Number	Fractions, Decimals and Percentages	Associate a fraction with division and calculate decimal fraction equivalents for example; 0.375 is $\frac{3}{8}$. Associate

				fractions and decimals with percentages and highlight connections between all three in tandem. Focus on using a variety of models and manipulatives to show the concepts being represented and investigated.
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Spring Term: Knowledge and application of Roman numerals to be consolidated during pm maths meetings and or during soft-start time.

Spring Term: Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Interpret and construct pie charts and use these to solve problems – all taught during Spring term during maths meetings and soft-start.



Year Group:		6	Class Teacher (s):	KO,AB,TC	Term: Spring
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:		Key objectives
	Week 1-2	Number	Place Value		Revisit reasoning the location of each digit within a 7-digit number. Solve number and practical problems that involve place value up to 7-digits inc. decimal numbers. Identify the value of each digit in numbers given to 3 decimal places.
		Number	Place Value		Revisit understanding the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). <i>Ready to progress Yr6-PNV</i> Use negative numbers in context, and calculate intervals across zero. Reference temperature and use practical problems relating to negative numbers in real-life. Extend to investigate range
	Week 3	Number	Addition and Subtraction		Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. Solve addition and subtraction problems involving decimals up to 3.d.p
	Week 4	Number	Multiplication		Revisit formal written methods for multiplication. Multiply one-digit numbers with up to 2 decimal places by whole numbers. Apply to context of money

	Week 5	Number	Division	Use written division methods in cases where the answer has up to 2 decimal places. Apply to real-life problem examples
	Week 6	Number	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.
	Week 7	Measurement	Converting Units	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 3.d.p. Convert between miles and kilometres.
	Week 8-9	Measurement	Perimeter, Area and Volume	Revisit formula for area and perimeter (Y5). Calculate area and perimeter of different polygons inc. triangles and parallelograms (use appropriate formula). Extend to compound shapes. Recognise that shapes with the same areas can have different perimeters and vice versa. Calculate lengths/widths that are unknown from known perimeters and areas. Reference squared numbers
		Measurement	Perimeter, Area and Volume	Consolidate the properties of 3D cubes and cuboids. Calculate the volume of 3D shapes- regular and compound. Use units of measure: mm ³ , cm ³ etc. Reference cubed numbers
	Week 10	Geometry	Properties of shape (angles)	Name, compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. Recognise and measure angles where they meet at a point, recognise where they are on a straight line, or equal when vertically opposite, also find missing angles where there are known and unknown values.
	Week 11	Geometry	Position and Direction	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.
	Week 12	Number	Fractions	Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Convert improper fractions into mixed numbers and vice versa. Multiply simple pairs of proper fractions, writing the answer in its simplest form for example $\frac{1}{4} \times$

Year Group:		6	Class Teacher (s):	KO,AB,TC	Term: Summer
	Week Commencing:	Main Topic Area for Maths:	Programme of study focus:	Key objectives	
	Week 1	Number	Fractions	Divide proper fractions by whole numbers for example $1/3 \div 2 = 1/6$. Extend to divide fractions by whole numbers. Consolidate knowledge and application of multiplying/ dividing fractions to different contexts/ practical problems.	
	Week 2	Number	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. Make reference to examples of formula already used/aware of.	
	Week 3		SATS WEEK		
	Week 4	Statistics	Graphs	Draw and interpret line graphs (continuous data) Explore ranges and graphs that go through 0 into negative numbers (temperatures). Reference Celsius	
	Week 5		Problem solving & investigating		
	Week 6	Statistics	Averages	Calculate the mean as an average. Extend to Explore other averages (mode, median) Apply to data retrieved from class investigation	
	Week 7-8		Problem solving & investigating		
			Problem solving & investigating		
	Week 9-11		Project based maths – enterprise		
			Project based maths- enterprise		
			Project based maths- enterprise		
				$1/2 = 1/8$. Extend to multiply mixed numbers with whole numbers	

