Maths Whole School Long Term Plan

PRAE WOOD PRIMARY SCHOOL
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	Week	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
YN	1	**Number** Reciting finger and number rhymes Using number names in sequence	**Subitising** Subitising small groups of 1. 2. 3. (recognising the amount without counting) Subitise in various arrangements and identifying changing amounts.	**Comparison** Comparing objects and sorting into groups	**Comparison** Sorting and grouping objects according to a 'rule'	**Subitising** Beginning to subitise 4 and then 5; recognising the amount without counting.	**Number - Comparison** Comparing groups and using the vocabulary more and fewer. Beginning to explore and identify when groups are the same.
	2	**Number** Number songs and rhymes Using number names in order		**Subitising** Exploring 3 in different ways; recognising the amount without counting. Identifying changing amounts	**Geometry - Pattern** Recreating and matching AB patterns Continuing AB patterns and creating own AB patterns	**Counting** Counting to 5 reliably, using number names in order and one to one correspondence Exploring cardinality - saying how many are in a set. Beginning to explore the composition of numbers to 5.	**Subitising** Conceptual subitising - seeing groups of 1, 2 and 3 within larger amounts.
	3		**Geometry - Shape** Comparing shapes. Identifying those that match	**Measure - Length/Height** Using appropriate language in relation to length and height. Ordering objects by length/height			**Geometry - Shape** Exploring 2D/3D and shape through making models, using vocabulary to describe them, sides, corners, straight, flat, round
	4	**Comparison** Matching objects identifying same and not same	**Counting** Recognising numerals 1-3 Counting reliably by moving items.		**Measure - Weight** Exploring weight and ordering objects by weight	**Measure - Capacity** Exploring filling and emptying	**Geometry - Pattern** Correcting errors in AB patterns.
	5	**Geometry - Shape** Developing shape and spatial awareness. Selecting shapes for a purpose.	**Geometry - Spatial Thinking** Developing language of position - on top, next to, in, behind	**Number - Counting** Recognising numerals 4-5 Counting reliably by labeling each item. Exploring cardinality	**Geometry - Shape** Identifying similarities and differences in shapes, Recognising and naming 2D shapes.	**Number - Comparison** Using counting to compare and making groups of more and less. Using language more than, fewer than.	**Number** Solving problems with numbers to 5. Experimenting with symbols and marks as well as numerals.
	6	**Geometry** Pattern (in environment)	**Measure - Comparison** Comparing the size of objects.		BUFFER WEEK		**Measure - Time** Sequencing events using vocabulary; first, then.
	7	**Geometry - Pattern** Observing patterns all around in the environment	**Measure - Time** Sequencing events				BUFFER WEEK

	Wk	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
YR	1	**Number** Number songs and rhymes	**Geometry - Shape & Classification** Recognising and naming 2D shapes. Classifying (grouping) objects using given criteria and their own ideas and comparing groups after classification	**Geometry - Spatial Thinking** Developing spatial thinking and spatial language linked to position and direction, in movements and using symbols.	**Number - Regrouping the Whole** Developing a deeper understanding that numbers are made up of other numbers and beginning to rehearse number bonds.	**Number - Ten and some more** Understanding values to 20 (focusing on the numbers 10 – 20) by creating the unit of 10, for comparison and finding one more and one less than a number	**Counting beyond 20** Counting beyond 20, recognising the pattern of the counting system, exploring the value of tens and ones in numbers
	2	**Subitising** Subitising numbers up to 5; recognising the amount without counting. Recognising numbers to 5 and linking names to their values.	**Counting** Counting a set of items accurately, saying how many are in the set and comparing this to the amount in other sets. Using counting to compare and finding a precise numerical difference in sets of objects in varied contexts.		**Number Regrouping parts to find the total** Combining parts to make a whole and using the part, whole model to develop an understanding of addition		**Number bonds** Consolidating recall of number bonds 0-5 (and some to 10)
	3			**Number - Magnitude (ordering and estimating)** Knowing the position of numbers 0-10 and the relationship to other numbers, such as 0, 5 or 10.	**Measuring - Capacity** Comparing items by their capacity. Using appropriate language to describe capacity.	**Number - Doubling and halving** Exploring doubling and halving, including solving problems involving doubling and halving	**Consolidation of ELGs**
	4	**Counting**	**Measures - Comparison** Comparing objects by weight/mass.		**Number - Regrouping parts to find the total**	**Number - Odd and Even**	

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		Counting reliably, using number names in order and one to one correspondence	Using appropriate language to describe weight and order items by weight.		Combining parts to make a whole and using the part, whole model to develop an understanding of addition	Understanding that numbers are either odd or even, looking at their 'composition' and whether they share fairly into two groups	
	5	**Measures - Comparison** Comparing objects by length, height and thickness. Using appropriate language to describe height, length and thickness.		**Shape - Decomposition** Explore shapes and recognise that a shape can have other shapes within it.	**Number - Finding the whole and missing parts** Explore what to do when something is missing; initially the whole but moving on to working out a missing part. Exploring strategies to solve different types of problems.	BUFFER WEEK	
	6		BUFFER WEEK	**Number - Regrouping the Whole** Developing a deeper understanding that numbers are made up of other numbers and beginning to rehearse number bonds.			
	7	**Geometry - Pattern Recognition** Noticing, describing and extending patterns, including thinking about what part is the repeating unit.					BUFFER WEEK

	Week	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Y1	1	**Geometry** Positional language including ordinal numbers (step 5: optional step)	**Number & Place Value to 10** Numbers to 10: comparison Numbers to 10: equality and balance	**Geometry** Names and properties of 2-D and 3-D shape (step 4: optional step) The language of comparing length, height, mass and speed (step 5: optional step) Sequencing events: days of the week and months of the year (step 2: optional step)	**Addition & Subtraction** Part or whole unknown Language and problem solving (part or whole unknown) (steps 5 and 6: optional steps) Comparison (difference, more, less, fewer) including statistics	**Multiplication & Division** Multiplication and division: equal or unequal groups and remainders Multiplication: repeated addition and arrays (number of groups and size of group) Multiplication: problem solving (identifying the number of groups and size of the group)(step 3: optional step) Multiplication: scaling and counting in 2s to 24 (steps 3 and 4: optional steps) Division: sharing and grouping problems	**Fractions** Sharing into equal groups (step 5: optional step) Equal or unequal parts of shapes Fractions of continuous quantities including capacity
	2	**Number & Place Value** Numbers to 10: finding patterns in numbers (including subitising) Numbers to 10: counting and comparison (more, less, fewer) (step 5: optional step) Numbers to 10: estimating and ordering					
	3		**Number & Place Value to 20** Numbers to 20: making '10 and some more' Numbers to 20: estimating and ordering, 1 more and 1 less (step 5: optional step) Numbers to 20: doubling and halving (step 3: optional step) Numbers to 20: odd and even numbers (step 3: optional step)	**Addition & Subtraction** Numbers to 20: adding using 'Think 10' (step 5: optional step) Numbers to 20: subtraction using 'Think 10' Numbers to 20: equality and balance		
	4				**Number, Place Value & Measurement** Measures: coins and combinations to 20p, ordering and comparing Counting in 2s, 5s and 10s (step 4: optional step) Measures: non-standard measures and introducing simple standard measures		**Number & Place Value** Numbers to 20: review Numbers to 100: place value and digits, making tens and some more (steps 3, 4 and 7: optional steps) Place value: estimation, ordering and comparison (step 5: optional step)
	5	**Number & Place Value to 10** Numbers to 10: regrouping the whole Numbers to 10: part whole addition and subtraction (steps 3, 5 and 9: optional steps) Numbers to 10: solving problems using part or whole unknown (steps 5 and 6: optional steps				**Measurement** Time: telling the time, o'clock and half past	
	6			BUFFER WEEK			
	7		BUFFER WEEK				BUFFER WEEK

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	Week	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Y2	1	**Number & Place Value** Numbers to 100: counting, place value, ordering and comparing Place value: making 'tens and some more' (steps 2 and 4: optional steps) Place value and regrouping 2-digit numbers Counting on and back in ones and tens from any number (step 4: optional step) Representing, ordering and comparing numbers to 100 and quantities for measures Estimation and magnitude (step 3: optional)	**Addition & Subtraction** Add and subtract numbers mentally using 1- and 2-digit numbers (steps 1, 5, 8 &11: optional steps) Finding part or whole unknown (step 6: optional step)	**Statistics** Totalling and comparing amounts in block graphs, pictograms, tables, and tally charts	**Multiplication & Division** Double and halve one and two-digit numbers and amounts of money Times tables pattern and strategy: 2s, 5s and 10s (counting in 3s) Multiplication: multiples and repeated addition Multiplication: number of groups, group size and product Multiplication problem solving Division: sharing and grouping Division: sharing and grouping problems including remainders (step 1: optional step)	**Fractions** Finding halves, quarters, and thirds of amounts Finding halves, quarters, and thirds of shapes (step 4: optional step) Finding three-quarters of shapes and amounts Equivalence Fractions of continuous quantities	**All 4 Operations, including Fractions** Problem solving for all operations (including fractions) Multiplication and division: equality and balance
	2						
	3			**Addition & Subtraction** Written addition method Written subtraction method Problem solving with addition and subtraction in a range of contexts			
	4		**Measurement** Money: making combinations and finding change Comparison (difference, more, less, fewer) (step 5: optional step) Measures: estimation and measure using different scales (step 5: optional step)				**Geometry** Properties of 2-D and 3-D shape, classifying and sorting (step 3: optional step) Geometry: symmetry (step 3: optional step)
	5			**Measurement** Time: telling the time to o'clock, half past, quarter past and quarter to Time: estimating, ordering, and comparing time		**Measurement** Telling the time to the nearest five minutes	**Addition, Subtraction, Multiplication & Division** Mental calculation review
	6	**Addition & Subtraction** Numbers to 20: mental addition and subtraction (steps 1 & 5: optional steps) Finding complements of 10 and 100 including measures (step 3: optional step)		BUFFER WEEK			**Geometry** Sequencing Rotation and right angles
	7		BUFFER WEEK				**Number & Place Value** Place Value and Written Calculation Review (steps 3 – 5: optional steps)

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	Week	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Y3	1	**Number & Place Value** Place value and regrouping Counting on and back in ones, tens and hundreds Estimation, magnitude and rounding Measures: comparison, estimation and magnitude	**Addition & Subtraction** Written addition Written subtraction Problem solving: worded problems	**Geometry & Measurement** 2-D shape: properties and drawing Perimeter including problem solving using written and mental methods	**Multiplication & Division** Multiplication and division worded problems	**Multiplication & Division** Multiplying multiples of ten Formal written multiplication Division problem-solving: sharing and grouping Division: two and three-digit numbers by one-digit numbers including halving Multiplication, division and fractions: scaling and correspondence problems Long division	**Measurement** Time: hours, minutes, seconds, days, weeks, months, years Telling the time (analogue and digital) and estimation (step 5: optional step) Time: duration (step 6: optional step)
	2				**Fractions** Finding fractions of discrete and continuous quantities Ordering and comparing fractions Adding and subtracting fractions with the same denominators Problem solving with unit and non-unit fractions		
	3			**Multiplication, Division & Statistics** Multiplication: 3-, 4- and 8-times tables including counting Division: 1-, 2-, 3-, 5-, 4- and 8-times tables Multiplication: strategy, associative and distributive laws Statistics: pictograms and scaled bar charts			**All 4 Operations, including Fractions** Securing the four operations with whole number including problem solving Ten times greater and ten times smaller Regrouping Place value and decimals: estimation, comparing and rounding (steps 2 and 3: optional steps)
	4	**Addition & Subtraction** Mental fluency: addition Mental fluency: subtraction (step 4: optional step) Fact families and applying the inverse	**Geometry & Statistics** Interpreting bar charts and tables Angles, right angles, and estimation Perpendicular and parallel lines, vertical and horizontal lines		BUFFER WEEK		**Measurement & Geometry** Measures: measuring and problem solving 3-D shape: building and identifying properties
	5						
	6		BUFFER WEEK				
	7						

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	Week	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Y4	1	**Number, Addition & Subtraction** Place value: order and compare numbers beyond 1,000 Rounding, estimation and magnitude Securing addition and subtraction mental fluency Securing formal written addition and subtraction fluency	**Multiplication & Division** Factor pairs, integer scaling and correspondence problems Problem solving including measures to apply place value, mental strategies and arithmetic laws Multiply and divide a one or two-digit number by 10 and 100	**Geometry & Measurement** Perimeter (step 4: optional step) Properties of shape 4LS15 – Symmetry	**Fractions** Add and subtract fractions with the same denominator Finding fractions of quantities Fractions in the context of measure Equivalent fractions, ordering and comparing	**Division** Divide two and three-digit numbers by a one-digit number using a formal written layout	**Geometry** Angles Properties of triangles Coordinates in the first quadrant and translations Position and direction, incorporating angles and plotting points of a shape
	2						
	3			**Decimals & Measurement** Decimal numbers Calculating with decimals Measure: money Problem solving involving decimals to two decimal places		**Measurement** Time: read, write, calculate, and convert time on analogue and digital 12- and 24-hour clocks	**Multiplication & Division** Multiplication and division review Area
	4		**Measurement & Statistics** Measure: conversion of units Measure: compare, estimate, and calculate (step 2: optional step) Discrete and continuous data (time graphs), including application of scales and division		**Multiplication** Multiply two and three-digit numbers by a one-digit number using a formal written layout	**Statistics** Interpret and present continuous and discrete data, solve problems incorporating measures	
	5					**Number** Roman Numerals to 100 and zero Negative numbers: counting through zero and calculating in context (step 3: optional step)	**Fractions** Fractions review
	6	**Multiplication & Division** Counting in multiples of 6, 7, 9, 25 and 1,000 Multiplication and division facts: times tables			BUFFER WEEK		**Problem Solving** Application and problem solving: developing operation sense
	7		BUFFER WEEK				BUFFER WEEK

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	Week	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Y5	1	**Number, place value, multiplication, and division** Place value and rounding of larger numbers Interpret negative numbers Place value of numbers with up to 3 decimal places Multiply and divide by 10, 100 and 1,000 Properties of number: multiples, factors, and common factors Prime and composite numbers	**Four Operations - Mental Calculation** Add and subtract using a range of strategies	**Fractions** Compare and order fractions Adding and subtracting fractions	**Measurement** Area Volume and capacity	**Geometry** Reflection and translation Perimeter Estimate, compare, measure and draw angles Identify unknown angles	**Multiplication & Division** Solving problems involving scaling by simple fractions and rates
	2		**Four Operations - Formal Written Methods** Add and subtract using formal written methods Formal written method for multiplication Formal written method of short division				**Measurement** Conversion of imperial and metric units of measure Reading timetables and calculating with time
	3			**Addition, Subtraction, Multiplication & Division** Problem solving: all operations	**Fractions (including Decimals & Percentages)** Percentages Problem-solving: percentages		
	4			**Fractions** Multiply fractions by whole numbers– Fraction problem solving		**Multiplication & Division** Formal methods for division and multiplication in increasingly complex problems Strategies for multiplication and division (mental and written)	**Y5 Public Speaking**
	5		**Fractions** Equivalent fractions		**Geometry** 3-D shapes from 2-D representations		**Geometry** Distinguish between regular and irregular polygons Use properties of rectangles
	6	**Four Operations - Mental Calculation** Multiply and divide mentally Solve problems involving knowledge of key facts		**Measurement** Measure: converting units of measure	BUFFER WEEK		**Number & Statistics** Statistics: solve comparison, sum and difference problems using information in a line graph Statistics: interpreting and evaluating information presented in charts and tables
	7		BUFFER WEEK				BUFFER WEEK
Weekly Fluency Challenge		**Review of Key Learning from Y5** *(including Roman Numerals & problem solving)*					

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	Week	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Y6	1	**Number & Place Value** Place value Multiply and divide by 10, 100 and 1,000	**Fractions (including Decimals & Percentages)** Equivalent fractions Comparing and ordering fractions Adding and subtracting fractions Fraction and decimal equivalent Fractions, decimals, and percentages Calculating percentages	**Algebra** Order of operations and algebra	**Ratio and Proportion** Ratio & Proportion	**Algebra** Algebra and sequences Statistics: calculate and interpret mean average	**Post SATs** Statistical representations Further algebra Maths preparation for KS3
	2			**Multiplication, Division & Measurement** Formal written method for long division Exploring relationships between perimeter and area		**Review** Application of previous years' learning Application of known facts and calculation strategies	
	3	**Addition, Subtraction, Multiplication & Division** Choosing effective mental calculation strategies Problem solving with four operations			**Measurement** Volume Measures		
	4			**Geometry** Recognise and find angles Reflection and translation	**Statistics** Statistics: line graphs and pie charts	**SATs Week**	
	5	**Multiplication, Division & Measurement** Application of factors, multiples and primes Formal written method of multiplication Area of parallelograms and triangles Formal written method of short division	**Geometry** Properties of shape	**Fractions (including Decimals & Percentages)** Multiplying fractions Dividing fractions	BUFFER WEEK	**Post SATs** Constructing pie charts	
	6			BUFFER WEEK	BUFFER WEEK		BUFFER WEEK
	7		BUFFER WEEK				BUFFER WEEK
20 Minute Maths		Wk 1 - Fractions of Amounts Wk 2 - Multiply & Divide by 10, 100 & 1000 Wk 3 - Add (Decimals & Integers) Wk 4 - Subtract (Decimals & Integers) Wk 5 - Multiply (Decimals & Integers) Wk 6 - Divide (Integers)	Wk 1 - Simplify Fractions Wk 2 - Round Integers & Decimals Wk 3 - BODMAS Wk 4 - 3 ½ x 10 (varied approaches) Wk 5 - Divide Decimals Wk 6 - Divide by 2 digit numbers	Wk 1 - Add & Subtract Fractions (different denominators) Wk 2 - Multiply & Divide by 10, 100, 1000 Wk 3 - Add & Subtract Mixed/Improper Fractions (different denominators) Wk 4 - Rounding	Wk 1 - Compare & Order Fractions & % Wk 2 - Algebra Wk 3 - % of Amounts Wk 4 - Multiply Fractions Wk 5 Divide Fractions	Wk 1 - Fractions of Amounts Wk 2 - + and - integers and decimals Wk 3 Multiply & divide integers and decimals Wk 4 - Multiply and divide Fractions Wk 5 - % of amounts	