Bradley Primary School Maths Curriculum 2022-2023

Year 6	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	**Place Value**		**Addition, Subtraction, Multiplication and Division**				
	- Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. - Round any whole number to a required degree of accuracy. - Use negative numbers in context, and calculate intervals across zero. - Solve number and practical problems that involve all of the above. - Identify, represent and estimate numbers using the number line.		*Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* *Select a mental strategy appropriate for the numbers in the calculation.* - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why - Solve problems involving addition, subtraction, multiplication and division - Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy - Identify common factors, common multiples and prime numbers *Solve problems involving all four operations, including those with missing numbers.* - Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication. - Perform mental calculations, including with mixed operations and large numbers - Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context - Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy - Use partitioning to double or halve any number				
Autumn 2	**Fractions A**		**Fractions B**			**Measurement**	
	- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination - Compare and order fractions, including fractions > 1 - Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions - Identify common factors, common multiples and prime numbers *Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why*		- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5) - Multiply simple pairs of proper fractions, writing the answer in its simplest form - Divide proper fractions by whole numbers - Associate a fraction with division and calculate decimal fraction equivalents			- Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate - Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places *Convert between miles and kilometres.* - Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. *Calculate differences in temperature, including those that involved a positive and negative temperature.*	
Spring 1	**Ratio**		**Algebra**	**Decimals**			
	- Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts. - Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. - Solve problems involving similar shapes where the scale factor is known or can be found.		- 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.	*Count forwards or backwards in steps of integers, decimals, powers of 10* - Identify the value of each digit to three decimal places. *Order and compare numbers including integers and decimal numbers.* *Find 0.001, 0.01, 0.1, 1, 10 and powers of 10 more/less than a given number.* *Round decimals with three decimal places to the nearest whole number or one or two decimal places.* - Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. *Describe and extend number sequences including those with multiplication and division steps, inconsistent steps, alternating steps and those where the step size is a decimal.* - Multiply one-digit numbers with up to two decimal places by whole numbers. - Use written division methods in cases where the answer has up to two decimal places. - Use estimation *and inverse* to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. - Use knowledge of the order of operations to carry out calculations. *Recall and use addition and subtraction facts for 1 (with decimals to two decimal places).* - Perform mental calculations including with mixed operations and large numbers *and decimals.*			

			Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction).	
Spring 2	**Fractions, Decimals and Percentages**	**Area, Perimeter and Volume**	**Statistics**	
	• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • *Find simple percentages of amounts.* • *Solve problems involving fractions.* • Solve problems which require answers to be rounded to specified degrees of accuracy. • Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison.	• Recognise that shapes with the same areas can have different perimeters and vice versa. • Calculate the area of parallelograms and triangles. • Recognise when it is possible to use formulae for area and volume of shapes. • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (e.g. mm^3 and km^3).	• *Continue to complete and interpret information in a variety of sorting diagrams (including sorting properties of numbers and shapes).* • Interpret and construct pie charts and line graphs and use these to solve problems. • *Solve comparison, sum and difference problems using information presented in all types of graph.* • Calculate and interpret the mean as an average.	
Summer 1	**Shape**	**Geometry – Position and Direction**	**SATS WEEK**	**Consolidation/Problem Solving/Transition Work**
	• Compare/classify geometric shapes based on the properties and sizes. • Draw 2-D shapes using given dimensions and angles. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Recognise, describe and build simple 3-D shapes, including making nets. • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Find unknown angles in any triangles, quadrilaterals, regular polygons.	• 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.	SATS WEEK	
Summer 2	**Consolidation/Problem Solving/Transition Work**			