Bradley Primary School Maths Curriculum 2022-2023

Year 5	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	Place Value					Addition and Subtraction	
	• Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. • Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. • Identify represent and estimate numbers using the number line. • Find 1, 10, 100, 1000 and other powers of 10 more or less than a given number. • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. • Read Roman numerals to 1000 (M); recognise years written as such. • Solve number and practical problems that involve all of the above					• 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 involved in the calculation. • Add and subtract numbers mentally with increasingly large numbers. • Add and subtract whole 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, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • Solve addition and subtraction problems involving missing numbers.	
Autumn 2	Multiplication and Division				Fractions		
	• Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method). • Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. • Establish whether a number up to 100 is prime and recall prime numbers up to 19. Recognise and use square (2) and cube (3) numbers, and notation. • Multiply and divide numbers mentally drawing upon known facts. • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.				• Add and subtract fractions with denominators that are the same and that are multiples of the same number (using diagrams). • Write statements > 1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 1 1/5) • Recognise mixed numbers and improper fractions and convert from one form to the other. • Compare and order fractions whose denominators are all multiples of the same number (including on a number line). • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.		
Spring 1	Multiplication and Division			Fractions, Decimals and Percentages			
	• *Use partitioning to double or halve any number,* • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. • *Use estimation/inverse to check answers to calculations; determine, in the context of a problem, an appropriate degree of accuracy.* • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates			• *Count forwards and backwards in decimal steps.* • Read, write, order and compare numbers with up to 3 decimal places. • *Identify the value of each digit to three decimal places.* • *Find 0.01, 0.1, more or less than a given number.* • Round decimals with two decimal places to the nearest whole number and to one decimal place. • Multiply/divide whole numbers and decimals by 10, 100 and 1000. • Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero. • *Describe and extend number sequences including those with multiplication/division steps and where the step size is a decimal* • *Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).* • *Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places).*		

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<table>
<tr><td>Spring 2</td><td colspan="3">Fractions, Decimals and Percentages</td><td>Negative Numbers</td><td></td></tr>
<tr><td></td><td colspan="3">• Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places.
• Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods (columnar addition and subtraction).
• Use partitioning to double or halve any number, including decimals to two decimal places.
• Read and write decimal numbers as fractions (e.g. 0.71=$\frac{71}{100}$).
• Count on and back in mixed number steps such as $1\frac{1}{2}$.
• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
• 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.
• Solve problems involving fractions and decimals to three places.
• 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 fractions with a denominator of a multiple of 10 or 25.</td><td>• Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero.
• Continue to order temperatures including those below 0°C.</td><td></td></tr>
<tr><td>Summer 1</td><td>Measurement – Length, Perimeter and Area</td><td>Statistics</td><td>Shape</td><td></td></tr>
<tr><td></td><td>• Measure/calculate the perimeter of composite rectilinear shapes.
• Calculate and compare the area of rectangle, use standard units square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.
• Use, read and write standard units of length</td><td>• Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes).
• Complete, read and interpret information in tables and timetables.
• Solve comparison, sum and difference problems using information presented in all types of graph including a line graph.
• Calculate and interpret the mode, median and range.</td><td>• Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
• Use the properties of rectangles to deduce related facts and find missing lengths and angles.
• Identify 3-D shapes from 2-D representations.
• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
• Draw given angles, and measure them in degrees (°).
• Identify:
- angles at a point and one whole turn (total 360°).
- angles at a point on a straight line and half a turn (total 180°).
- other multiples of 90°.</td><td></td></tr>
<tr><td>Summer 2</td><td>Shape</td><td>Position and Direction</td><td>Measurement</td><td></td></tr>
<tr><td></td><td></td><td>• Describe positions on the first quadrant of a coordinate grid.
• Plot specified points and complete shapes.
• Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</td><td>• Use, read and write standard units of length and mass.
• Estimate (and calculate) volume ((e.g., using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water).
• Understand the difference between liquid volume and solid volume.
• Convert between different units of metric measure.
• Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
• Continue to read, write and convert time between analogue and digital 12 and 24-hour clocks.
• Solve problems involving converting between units of time.</td><td></td></tr>
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			• Use all four operations to solve problems involving measure using decimal notation, including scaling.	