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| **Maths at Bowerham** | | | | | | |
| Units of Maths (provisional – these may be subject to change) | | | | | | |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Week 1 | Place Value, addition and subtraction | Multiplication tables ( 3x and 4x) | Place Value, addition and subtraction | 2D Shape | Addition and Subtraction | Place Value |
| Week 2 | Multiplication | Multiplication | Addition, Subtraction and statistics | Calculation |
| Week 3 | Length and Perimeter | Division | Fractions  Position and Direction | Multiplication and Division | Fractions |
| Week 4 | Statistics | Time | Fractions | 2D Shape | Statistics |
| Week 5 | Addition and Subtraction | 3D Shape | Division | Time | Decimal place value | Time |
| Week 6 | Assess and Review | Volume, capacity and mass | Assess and Review | 3D Shape | Assess and Review |
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| **Topic** | **End of Year Expectation** |
| Number and Place Value | * Count from 0 in multiples of 4, 8, 50 and 100 * Count up and down in tenths * Read and write numbers up to 1000 in numerals and in words * Read and write numbers with one decimal place * Identify, represent and estimate numbers using different representations (including the number line) * Recognise the place value of each digit in a threedigit number (hundreds, tens, ones) * Identify the value of each digit to one decimal place * Partition numbers in different ways (e.g. 146 = 100+40+6 and 146 = 130+16) * Compare and order numbers up to 1000 * Compare and order numbers with one decimal place * Find 1, 10 or 100 more or less than a given number * Round numbers to at least 1000 to the nearest 10 or 100 * Find the effect of multiplying a one- or twodigit number by 10 and 100, identify the value of the digits in the answer * Describe and extend number sequences involving counting on or back in different steps * Read Roman numerals from I to XII * Solve number problems and concrete problems involving these ideas |
| Addition and Subtraction | * 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 * Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context * Recall/use addition / subtraction facts for 100 (multiples of 5 and 10) * Derive and use addition and subtraction facts for 100 * Derive and use addition and subtraction facts for multiples of 100 totalling 1000 * Add and subtract numbers mentally, including: - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds * 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 * Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction |
| Multiplication and Division | * Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) * Understand that division is the inverse of multiplication and vice versa * Understand how multiplication and division statements can be represented using arrays * Understand division as sharing and grouping and use each appropriately * Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables * Derive and use doubles of all numbers to 100 and corresponding halves * Derive and use doubles of all multiples of 50 to 500 * 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 * Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy * Solve problems, including missing number problems, involving multiplication and division (and interpreting remainders), including positive integer scaling problems and correspondence problems in which n objects are connected to m objects |
| Number – Fractions | * Show practically or pictorially that a fraction is one whole number divided by another (e.g. 𝟑/𝟒 can be interpreted as 3 ÷ 4) * Understand that finding a fraction of an amount relates to division * Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10 * Recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators * Recognise and show, using diagrams, equivalent fractions with small denominators * Add and subtract fractions with the same denominator within one whole [for example, 𝟓/𝟕 + 𝟏/𝟕 = 𝟔/𝟕 * Compare and order unit fractions, and fractions with the same denominators (including on a number line) * Count on and back in steps of 𝟏/𝟐 , 𝟏/𝟒 and ¾ * Solve problems that involve all of the above |
| Geometry – Properties of Shapes | * Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them * 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 three quarters of a 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 |
| Geometry – Position and Direction | * Describe positions on a square grid labelled with letters and numbers |
| Statistics | * Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes * Interpret and present data using bar charts, pictograms and tables * 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 |
| Measurement | * Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) * Continue to estimate and measure temperature to the nearest degree (°C) using thermometers * Understand perimeter is a measure of distance around the boundary of a shape * Measure the perimeter of simple 2-D shapes * 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/read time with increasing accuracy to the nearest minute * Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon, midnight * Know the number of seconds in a minute and the number of days in each month, year and leap year * Compare durations of events [for example to calculate the time taken by particular events or tasks] * Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence * Recognise that ten 10p coins equal £1 and that each coin is 𝟏/𝟏𝟎 of £1 * Add and subtract amounts of money to give change, using both £ and p in practical contexts * Solve problems involving money and measures and simple problems involving passage of time |
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