**The Federation of Abbey Schools - Year 6 Maths Medium Term Planning 2022/23**

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| **Topic** | **Abbey Curriculum Objectives Autumn** |
| **Number:****Place Value** | * To read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.
* To round any whole number to a required degree of accuracy
* To use negative numbers in context, and calculate intervals across zero
* To solve number and practical problems that involve all of the above
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| **Number:****+ - x ÷** | * To perform mental calculations, including with mixed operations and large numbers
* To solve problems involving addition, subtraction, multiplication and division
* To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
* To use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
* To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
* To divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
* To use knowledge of the order of operations to carry out calculations involving the four operations
* To identify common factors, common multiples and prime numbers
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| **Number:****Fractions** | * To use common factors to simplify fractions; use common multiples to express fractions in the same denomination
* To compare and order fractions, including fractions > 1
* To add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
* To multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ¼ x ½ = ⅛]

11* To divide proper fractions by whole numbers [for example, —÷ 2 = — ]

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| **Number:** **+ - x ÷** | * To identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

3* To use written division methods in cases where the answer has up to two decimal places
* To solve problems which require answers to be rounded to specified degrees of accuracy
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| **Number:** **Place Value** | * To demonstrate an understanding of place value including decimals eg 28.13 = 28 + ? + 0.03
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| **Measurement** | * To solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
* To 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 three decimal places
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| **Topic** | **Abbey Curriculum Objectives Spring** |
| **Geometry:****Properties of Shape** | * To draw 2-D shapes using given dimensions and angles
* To compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
* To recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
* To illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.
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| **Geometry:****Position and Direction** | * To describe positions on the full coordinate grid (all four quadrants)
* To draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
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| **Number:****Fractions** | * To associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, — ]

83* To multiply numbers with up to two decimal places by whole numbers
* To use written division methods in cases where the answer has up to two decimal places
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| **Statistics** | * To interpret and construct pie charts and line graphs and use these to solve problems
* To calculate and interpret the mean as an average.
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| **Ratio and Proportion** | * To solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
* To solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
* To solve problems involving similar shapes where the scale factor is known or can be found
* To solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
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| **Measurement** | * To convert between miles and kilometres
* To recognise that shapes with the same areas can have different perimeters and vice versa
* To recognise when it is possible to use formulae for area and volume of shapes
* To calculate the area of parallelograms and triangles
* To calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³].
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| **Algebra** | * To use simple formulae
* To generate and describe linear number sequences
* To express missing number problems algebraically
* To find pairs of numbers that satisfy an equation with two unknowns
* To enumerate possibilities of combinations of two variables.
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| **Topic** | **Abbey Curriculum Objectives Summer** |
| **Geometry:****Properties of Shape** | * To recognise, describe and build simple 3-D shapes, including making nets
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| **Number:****+ - x ÷** | * To divide numbers up to 4 digits by a two-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
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|  | * Consolidation, problem solving and investigations
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