**St Peter’s C of E (Aided) Primary School Medium Term Maths Planning Overview Year 6 Medium Term Planning Autumn Term**

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| Date/Week | Cross Curricular Links | Topic | Curriculum Objectives |
|  |  | Place value and rounding off | ● To read, write, order and compare numbers at least to 10,000,000 and determine the value of each digit.  ● To round any whole number to a required degree of accuracy.  ● To solve number problems and practical problems that involve all of the above. |
|  |  | Mental and written addition and subtraction of large numbers | ● To perform mental calculations, including with mixed operations and large numbers.  ● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. |
|  |  | Multiples, factors and prime numbers | ● To perform mental calculations, including with mixed operations and large numbers.  ● To identify common factors, common multiples and prime numbers.  ● To solve problems involving addition, subtraction, multiplication and division. |
|  |  | Written methods for multiplication and division: HTU  × TU and HTU × U | ● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.  ● To divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context.  ● To solve problems involving addition, subtraction, multiplication and division.  ● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. |
|  |  | Circles and angles | ● To illustrate and name parts of circles, including radius, diameter and circumference.  ● To recognise angles where they meet at a point, are on a straight line, or are  vertically opposite, and find missing angles |
|  |  | Units of measure | To solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate.  ● To use, read, write and convert between standard units, converting measurements of length, mass, volume /capacity and time from a smaller unit of measure to a larger unit, and vice versa using decimal notation to three decimal places.  ● To convert between miles and kilometres. |
|  |  | Comparing, ordering and simplifying fractions | ● To compare and order fractions, including fractions >1.  ● To use common factors to simplify fractions; use common multiples to express fractions in the same denomination. |
|  |  | Order of operations | ● To use their knowledge of the order of operations to carry out calculations involving the four operations.  ● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.  ● To solve problems involving addition, subtraction, multiplication and division.  ● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. |
|  |  | 2D and 3D shapes | ● To draw 2D 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, describe and build simple 3D shapes, including making nets. |
|  |  | Pie charts | ● To interpret and construct pie charts and line graphs and use these to solve problems. |
| Assess and review | | | ● To assess and review the half-term’s work. |

**St Peter’s C of E (Aided) Primary School Medium Term Maths Planning Overview Year 6 Medium Term Planning Spring Term**

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| Date/Week | Cross Curricular Links | Topic | Curriculum Objectives |
|  |  | Negative numbers, and solving problems involving numbers | ● To read, write, order and compare numbers at least 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 problems and practical problems that involve all of the above. |
|  |  | Mental and written addition and subtraction of decimals and money | ● To perform mental calculations, including with mixed operations and large numbers.  ● 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, levels of accuracy. |
|  |  | Mental and written multiplication and division  Calculating with large numbers | ● To perform mental calculations, including with mixed operation and large numbers.  ● To identify common factors, common multiples and prime numbers (Children could practise using mental methods that involve using factors, for example.)  ● To use their knowledge of the order of operations to carry out calculations involving the four operations.  ● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.  ● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.  ● To divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.  ● To perform mental calculations, including with mixed operations and large numbers.  ● To use their knowledge of the order of operations to carry out calculations involving the four operations.  ● To solve problems involving addition, subtraction, multiplication and division. |
|  |  | Multiplying and dividing decimals | ● To multiply one-digit 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.  ● To solve problems which require answers to be rounded to specified degrees of accuracy. |
|  |  | Calculating with fractions  Percentages, decimals and fractions | ● To add and subtract fractions with different denominators, using the concept of equivalent fractions.  ● To associate a fraction with division to calculate decimal fraction equivalents  (0.375) for a simple fraction (3/8).  ● To multiply simple pairs of proper fractions, writing the answer in its simplest form  (1/4 ÷ 1/2 = 1/8).  ● To divide proper fractions by whole numbers (1/3 ÷ 2 = 1/6).  ● To solve problems involving the calculation of percentages of whole numbers or measures and the use of percentages for comparison.  ● To recall and use equivalences between simple fractions, decimals and percentages, including different contexts. |
|  |  | Reflections and translations on coordinate axes | ● To describe positions on the full co-ordinate grid (all four quadrants).  ● To draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes. |
|  |  | Perimeter, area and volume | ● To recognise that shapes with the same area can have different perimeters and vice versa.  ● To calculate the area of parallelograms and triangles.  ● To recognise when it is necessary to use the formulae for area and volume of shapes.  ● To calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm3) and cubic metres (m3) and extending to other units such as mm3 and km3.  ● To solve problems involving the calculation and conversion of units of measure, using decimal notation 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 three decimal places.  ● To calculate the area of parallelograms and triangles.  ● To recognise when it is necessary to use the formulae for area and volume of shapes. |
|  |  | Simple formulae | ● To express missing number problems algebraically.  ● To use simple formulae expressed in words.  ● To find pairs of numbers that satisfy number sentences involving two unknowns.  ● To enumerate all possibilities of combinations of two variables. |
|  |  | Line graphs | ● To interpret and construct pie charts and line graphs and use these to solve problems. |
| Assess and review | | | ● To assess and review the half-term’s work. |

**St Peter’s C of E (Aided) Primary School Medium Term Maths Planning Overview Year 6 Medium Term Planning Summer Term**

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| Date/Week | Cross Curricular Links | Topic | Curriculum Objectives |
|  |  | Problems involving number  Solving problems involving money | ● 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 problems and practical problems that involve all the above.  ● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.  ● To divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.  ● To perform mental calculations, including with mixed operations and large numbers.  ● To use their knowledge of the order of operations to carry out calculations involving the four operations.  ● To solve problems involving addition, subtraction, multiplication and division |
|  |  | Adding and subtracting large and small numbers | ● To perform mental calculations, including with mixed operations and large numbers.  ● To solve addition and subtraction multi-step problems in contexts, deciding which operations to use and why.  ● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. |
|  |  | Long multiplication and division | ● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written methods of long multiplication.  ● To divide numbers up to 4 digits by two digit whole numbers using the efficient written method of long division and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context.  ● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. |
|  |  | Number puzzles | ● To express missing number problems algebraically.  ● To use simple formulae expressed in words.  ● To generate and describe linear number sequences.  ● To find pairs of numbers that satisfy number sentences involving two unknowns.  ● To enumerate all possibilities of combinations of two variables. |
|  |  | Working with fractions | ● 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.  ● To divide proper fractions by whole numbers.  ● To multiply simple pairs of proper fractions, writing the answer in its simplest form  (1/4 ÷ 1/2 = 1/8).  ● To use common factors to simplify fractions; use common multiples to express fractions in the same denomination. |
|  |  | Problems involving percentages, fractions and decimals | ● To solve problems involving the calculation of percentages of whole numbers or measures and the use of percentages for comparison.  ● To recall and use equivalences between simple fractions, decimals and percentages including in different contexts. |
|  |  | Ratio and proportion | ● To solve problems involving the relative size of two quantities where missing values can be found by using integer multiplication and division facts.  ● To solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.  ● To solve problems involving similar shapes where the scale factor is known or can be found. |
|  |  | Problems involving measures | ● To solve problems involving the calculation and conversion of units of measure, using decimal notation 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 large unit and vice versa, using decimal notation to three decimal places. |
|  |  | Using data | ● To interpret and construct pie charts and line graphs and use these to solve problems.  ● To calculate and interpret the mean as an average. |
| Assess and review | | | ● To assess and review the half-term’s work. |