**St Peter’s C of E (Aided) Primary School Medium Term Maths Planning Overview Year 3/4 Medium Term Planning Autumn Term**

*Blue and Italics are used to highlight the younger year group*

|  |  |  |  |
| --- | --- | --- | --- |
| Date/Week | Cross Curricular Links | Topic | Curriculum Objectives |
|  |  | Reading, writing and ordering two- and three-digit numbers  Number, place  value and rounding | * *To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).* * *To compare and order numbers up to 1000.* * *To read and write numbers up to 1000 in numerals and in words.*   ● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).  ● To identify, represent and estimate numbers using different representations.  ● To order and compare numbers beyond 1000.  ● To round any number to the nearest 10, 100 or 1000.  ● To count in multiples of 6, 7, 9, 25, 1000.  ● To find 1000 more or less than a given number. |
|  |  | Counting and estimating | ●*To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.*  ●*To identify, represent and estimate numbers using different representations.*  ●*To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.* |
|  |  | Number facts to 20 and to 100  Addition and Subtraction of  1 and 2-digit numbers  Addition and subtraction of two- and three-digit numbers, using a number line and column  Mental addition and subtraction | ●*To add and subtract numbers mentally, including:*   * + *a three-digit number and ones*   + *a three-digit number and tens*   + *a three-digit number and hundreds.* * *To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.*   ●*To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.*  ●*To estimate the answer to a calculation and use inverse operations to check answers.*  ●*To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.*  ● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.  ● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.  ● To estimate and use inverse operations to check answers to a calculation. |
|  |  | Multiplication and division facts | ●*To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.*  ●*To 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.*  ●*To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.*  ● To recall multiplication facts for multiplication tables up to 12 × 12.  ● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.  ● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.*  ● To recognise and use factor pairs and commutativity in mental calculations. |
|  |  | Measures | ●*To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).*  ●*To measure the perimeter of simple 2D shapes.*  ● To convert between different units of measure (for example, kilometre to metre; hour to minute).  ● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.  ● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.  ● To estimate, compare and calculate different measures, including money in pounds and pence. |
|  |  | Geometry: properties of shapes  Geometry | ●*To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy.*  ●*To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.*  ● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.  ● To identify lines of symmetry in 2D shapes presented in different orientations.  ● To complete a simple symmetric figure with respect to a specific line of symmetry.  ● To describe positions on a 2D grid as coordinates in the first quadrant.  ● To plot specified points and draw sides to complete a given polygon.  ● To identify acute and obtuse angles and compare and order angles up to two right angles by size. |
|  |  | Fractions: representing, comparing and ordering unit fractions of shapes and numbers  Fractions | ●*To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.*  ●*To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.*  ●*To compare and order unit fractions, and fractions with the same denominators.*  ●*To solve problems that involve all of the above.*  ● To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.  ● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.  ● To recognise and show, using diagrams, families of common equivalent fractions.  ● Find the effect of dividing a one or two digit number by 10 or 100 identifying the value of the digits in the answer as ones, tenths and hundredths |
|  |  | Time | ●*To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.*  ●*To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o’clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight.*  ●*To know the number of seconds in a minute and the number of days in each month, year and leap year.*  ●*To compare durations of events, for example to calculate the time taken by particular events or tasks.*  ● To read, write and convert time between analogue and digital 12- and 24-hour clocks.  ● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. |
|  |  | Read, present and interpret pictograms and tables  Data handling and time | ●*To interpret and present data using bar charts, pictograms and tables*  ●*To solve one-step and two-step questions such as ‘How many more?’ and ‘How many fewer?’ using information presented in scaled bar charts and pictograms and tables.*  ● To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.  ● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. |
| 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 3/4 Medium Term Planning Spring Term**

*Blue and Italics are used to highlight the younger year group*

|  |  |  |  |
| --- | --- | --- | --- |
| Date/Week | Cross Curricular Links | Topic | Curriculum Objectives |
|  |  | Number, place value and rounding | ●*To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.*  ●*To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).*  ●*To compare and order numbers up to 1000.*  ●*To identify, represent and estimate numbers using different representations.*  ●*To read and write numbers up to 1000 in numerals and in words.*  ●*To solve number problems and practical problems involving these ideas.*  ● To find 1000 more or less than a given number.  ● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).  ● To order and compare numbers beyond 1000.  ● To identify, represent and estimate numbers using different representations.  ● To round any number to the nearest 10, 100 or 1000.  ● To solve number and practical problems that involve all of the above and with increasingly large positive numbers.  ● To read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value. |
|  |  | Use partitioning to add and subtract two-digit numbers  Addition and subtraction of two- digit numbers using columns  Mental and written addition and subtraction | ●*To add and subtract numbers mentally, including:*   * + *a three-digit number and ones*   + *a three-digit number and tens*   + *a three-digit number and hundreds.*   ●*To estimate the answer to a calculation and use inverse operations to check answers.*  ●*To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.*  ●*To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.*  ●*To estimate the answer to a calculation and use inverse operations to check answers.*  ●*To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.*  ● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.  ● To estimate and use inverse operations to check answers to a calculation.  ● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.  ● To estimate, compare and calculate different measures, including money in pounds and pence. |
|  |  | Multiplication and division: multiplying one- digit numbers by multiples of 10 | ●*To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.*  ●*To 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.*  ●*To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.*  ● To recall multiplication and division facts for multiplication tables up to 12 × 12.  ● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. |
|  |  | Multiplication and division: practical and informal written methods | ●*To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.*  ●*To 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.*  ●*To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.*  ● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.  ● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.*  ● To recognise and use factor pairs and commutativity in mental calculations. |
|  |  | Measures: adding and subtracting money  Fractions | ●*To add and subtract amounts of money to give change, using both £ and p in practical contexts.*  ● To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.  ● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.  ● To recognise and show, using diagrams, families of common equivalent fractions. |
|  |  | Recognising and drawing right angles in 2D shapes  Geometry | ●*To recognise angles as a property of shape and associate angles with turning.*  ●*To 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.*  ● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.  ● To identify acute and obtuse angles and compare and order angles up to two right angles by size.  ● To describe positions on a 2D grid as coordinates in the first quadrant.  ● To describe movements between positions as translations of a given unit to the left/right and up/down.  ● To plot specified points and draw sides to complete a given polygon. |
| Fractions and Decimals  Fractions: representing, comparing and ordering unit and non-unit fractions of shapes and numbers | ● To recognise and write decimal equivalents of any number of tenths or hundredths.  ● To recognise and write decimal equivalents to 1/4; 1/2; 3/4.  ● To find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.  ● To round decimals with one decimal place to the nearest whole number.  ● To compare numbers with the same number of decimal places up to two decimal places.  ● To solve simple measure and money problems involving fractions and decimals to two decimal places.  ●*To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.*  ●*To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.*  ●*To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.*  ●*To recognise and show, using diagrams, equivalent fractions with small denominators.*  ●*To compare and order unit fractions, and fractions with the same denominators.*  ●*To solve problems that involve all of the above.* |
|  |  | Time | ● To convert between different units of measure (kilometre to metre; hour to minute).  ● To estimate, compare and calculate different measures, including money in pounds and pence.  ● To read, write and convert time between analogue and digital 12- and 24-hour clocks.  ● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. |
|  |  | Read and interpret bar charts, using scales  Data Handling | ●*To interpret and present data using bar charts, pictograms and tables.*  ●*To solve one-step and two-step questions such as ‘How many more?’ and ‘How many fewer?’ using information presented in scaled bar charts and pictograms and tables.*  ● To interpret and present discrete data using bar charts and continuous data using time graphs.  ● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. |
| 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 3/4 Medium Term Planning Summer Term**

*Blue and Italics are used to highlight the younger year group*

|  |  |  |  |
| --- | --- | --- | --- |
| Date/Week | Cross Curricular Links | Topic | Curriculum Objectives |
|  |  | Read, write and order and round two- and three- digit numbers  Place value ideas | ●*To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.*  ●*To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).*  ●*To compare and order numbers up to 1000.*  ●*To identify, represent and estimate numbers using different representations.*  ●*To read and write numbers up to 1000 in numerals and in words.*  ●*To solve number problems and practical problems involving these ideas.*  ● To count in multiples of 6, 7, 9, 25 and 1000.  ● To find 1000 more or less than a given number.  ● To count backwards through zero to include negative numbers.  ● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).  ● To order and compare numbers beyond 1000.  ● To identify, represent and estimate numbers using different representations.  ● To round any number to the nearest 10, 100 or 1000.  ● To solve number and practical problems that involve all of the above and with increasingly large positive numbers. |
|  |  | Multiplication and division problems  Mental and written multiplication and division | ●*To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.*  ●*To 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.*  ●*To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.*  ● To recall multiplication and division facts for multiplication tables up to 12 × 12.  ● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.  ● To recognise and use factor pairs and commutativity in mental calculations.  ● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.  ● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.* |
|  |  | Addition and subtraction  of three-digit numbers and 1s,  10s and 100s  Mental addition and subtraction and measures (use measures as a context for problems) | ●*To add and subtract numbers mentally, including:*   * + *a three-digit number and ones*   + *a three-digit number and tens*   + *a three-digit number and hundreds.*   ●*To estimate the answer to a calculation and use inverse operations to check answers.*  ●*To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.*  ● To estimate and use inverse operations to check answers to a calculation.  ● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.  ● To estimate, compare and calculate different measures, including money in pounds and pence. |
|  |  | Addition and subtraction of two- and three-digit numbers using columns  Written addition and subtraction | ●*To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.*  ●*To estimate the answer to a calculation and use inverse operations to check answers.*  ●*To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.*  ● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.  ● To estimate and use inverse operations to check answers to a calculation.  ● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. |
|  |  | Shape: identifying horizontal, vertical, and curved lines  Area and perimeter of rectilinear  shapes and capacity | ●*To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy.*  ●*To recognise angles as a property of shape and associate angles with turning.*  ●*To 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.*  ●*To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.*  ● To convert between different units of measure (kilometre to metre; hour to minute).  ● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.  ● To find the area of rectilinear shapes by counting.  ● To estimate, compare and calculate different measures, including money in pounds and pence. |
|  |  | 2D shape, angles and coordinates | ● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.  ● To identify acute and obtuse angles and compare and order angles up to two right angles by size.  ● To identify lines of symmetry in 2D shapes presented in different orientations.  ● To describe positions on a 2D grid as coordinates in the first quadrant.  ● To describe movements between positions as translations of a given unit to the left/right and up/down.  ● To plot specified points and draw sides to complete a given polygon. |
|  |  | Fractions | ●*To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.*  ●*To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.*  ●*To recognise and show, using diagrams, equivalent fractions with small denominators.*  ●*To add and subtract fractions with the same denominator within one whole (5/7 + 1/7 = 6/7).*  ●*To solve problems that involve all of the above.*  ● To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.  ● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.  ● To recognise and show, using diagrams, families of common equivalent fractions.  ● To add and subtract fractions with the same denominator. |
|  |  | Read and write time using 12 and  24 hour  Measures | ●*To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.*  ●*To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o’clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight.*  ●*To know the number of seconds in a minute and the number of days in each month, year and leap year.*  ●*To compare durations of events, for example to calculate the time taken by particular events or tasks.*  ●*To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).*  ● To convert between different units of measure (kilometre to metre; hour to minute).  ● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.  ● To find the area of rectilinear shapes by counting.  ● Perimeter to be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit  ● To estimate, compare and calculate different measures, including money in pounds and pence.  ● To read, write and convert time between analogue and digital 12- and 24-hour clocks.  ● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. |
|  |  | Statistics | ● To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.  ● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. |
| Assess and review | | | ● To assess and review the half-term’s work. |