## Braywood CE First School

## Year 4 Maths Curriculum

| Autumn Term 1 |  |  |
| :--- | :--- | :--- |
| Wk | Strands | Weekly Summary |
| 1 | Mental addition and subtraction (MAS); <br> Problem solving, reasoning and algebra <br> (PRA) | Finding pairs with a total of 100; adding to the next multiple of <br> 100 and subtracting to the previous multiple of 100; subtract by <br> counting up to find a difference; adding several numbers |
| 2 | Number and place value (NPV); Mental <br> addition and subtraction (MAS) | Read, write 4-digit numbers and know what each digit <br> represents; compare 4-digit numbers using < and > and place <br> on a number line; add 2-digit numbers mentally; subtract 2-digit <br> and 3-digit numbers |
| 3 | Mental multiplication and division (MMD); <br> Problem solving, reasoning and algebra <br> (PRA); Fractions, ratio and proportion <br> (FRP) | Learn $\times$ and $\div$ facts for the 6 and 9 times-table and identify <br> patterns; multiply multiples of 10 by single-digit numbers; <br> multiply 2-digit numbers by single-digit numbers (the grid <br> method); find fractions of amounts |
| 4 | Measurement (MEA); Mental addition and <br> subtraction (MAS); Decimals, percentages <br> and their equivalence to fractions (DPE) | Tell and write the time to the minute on analogue and digital <br> clocks; calculate time intervals; measure in metres, centimetres <br> and millimetres; convert lengths between units; record using <br> decimal notation |
| 5 | Written addition and subtraction (WAS) | Add two 3-digit numbers using column addition; subtract a 3- <br> digit number from a 3-digit number using an expanded column <br> method (decomposing only in one column) |


| Autumn Term 2 |  |  |
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| Wk | Strands | Weekly Summary |
| 6 | Mental multiplication and division (MMD); <br> Problem solving, reasoning and algebra <br> (PRA); Fractions, ratio and proportion (FRP) | Double 3-digit numbers and halve even 3-digit numbers; <br> revise unit fractions; ; dentify equivalent fractions; reduce a <br> fraction to its simplest form; count in fractions (each fraction <br> in its simplest form) |
| 7 | Decimals, percentages and their equivalence <br> to fractions (DPE); Number and place value <br> (NPV); Written addition and subtraction <br> (WAS) | Look at place value in decimals and the relationship <br> between tenths and decimals; add two 4-digit numbers; <br> practite written and mental addition methods; use vertical <br> addition to investigate patterns |
| 8 | Decimals, percentages and their equivalence <br> to fractions (DPE); Measurement (MEA); <br> Statistics (STA); Problem solving, reasoning <br> and algebra (PRA) | Convert multiples of 100 g into kilograms; convert multiples <br> of 100 ml into litres; read scales to the nearest 100 ml; <br> estimate capacities; draw bar charts, record and interpret <br> information |
| 9 | Number and place value (NPV); Written <br> addition and subtraction (WAS;); Mental <br> addition and subtraction (MAS) | Round 4-digit numbers to the nearest: 10, 100 and 1000; <br> subtract 3-digit numbers using the expanded written version <br> and the counting up mental strategy and decide which to use |
| 10 | Mental multiplication and division (MMD); <br> Written multiplication and division (WMD); <br> Problem solving, reasoning and algebra <br> (PRA) | Use the grid method to multiply 3-digit by single-digit <br> numbers and introduce the vertical algorithm; begin to <br> estimate products; divide numbers (up to 2 digits) by single- <br> digit numbers with no remainder, then with a remainder |

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| Spring Term 1 |  |  |
| :--- | :--- | :--- |
| Wk | Strands | Weekly Summary |
| 11 | Number and place value (NPV); Problem <br> solving, reasoning and algebra (PRA) | Place 4-digit numbers on landmarked lines; 0-10 000 and 1000-2000; <br> round 4-digit numbers to the nearest 10, 100 and 1000; mentally add and <br> subtract to/from 4-digit and 3-digit numbers using place-value; count on and <br> back in multiples of 10, 100 and 1000; count on in multiples of 25 and 50; <br> add and subtract multiples of 10 and 100 to/from 4-digit numbers |
| 12 | Written addition and subtraction (WAS); <br> Mental multiplication and division (MMD); <br> Written multiplication and division (WMD); <br> Measurement (MEA); Problem solving, <br> reasoning and algebra (PRA) | Use expanded written subtraction and compact written subtraction to <br> subtract pairs of 3-digit numbers (one 'exchange'); use expanded column <br> subtraction and compact column subtraction to subtract pairs of 3-digit and <br> 2-digit numbers from 3-digit numbers (one 'carry'); learn the 7x table and <br> 'tricky' facts; use the vertical algorithm to multiply 3-digit numbers by 1-digit <br> numbers; solve simple money problems with decimals to two decimal <br> places |
| 13 | Mental multiplication and division (MMD); <br> Fractions, ratio and proportion (FRP); <br> Problem solving, reasoning and algebra <br> (PRA) | Use mental multiplication and division strategies; find non-unit fractions of <br> 2-digit and 3-digit numbers; find equivalent fractions and use them to <br> simplify fractions (halves, thirds, quarters) |
| 14 | Geometry: properties of shapes (GPS); <br> Problem solving, reasoning and algebra <br> (PRA) | Recognise and compare acute, right and obtuse angles; draw lines of a <br> given length; identify perpendicular and parallel lines; recognise and draw <br> line symmetry in shapes; sort 2D shapes according to their properties; draw <br> shapes with given properties and explain reasoning; draw the other half of <br> symmetrical shapes |
| 15 | Mental multiplication and division (MMD); <br> Written multiplication and division (WMD); <br> Mental addition and subtraction (MAS); <br> Problem solving, reasoning and algebra <br> (PRA) | Understand how to divide 2-digit and 3-digit numbers by 1-digit numbers <br> using place value and mental strategies; divide numbers by 1-digit numbers <br> to give answers between 10 and 25, with remainders; identify factor pairs <br> and use these to solve multiplications and divisions with larger numbers; <br> use Frog to find complements to multiples of 1000; use Frog to find change <br> from £10, £20 and £50 |


| Spring Term 2 |  |  |
| :--- | :--- | :--- |
| Wk | Strands | Weekly Summary |
| 16 | $\begin{array}{l}\text { Decimals, percentages and their } \\ \text { equivalence to fractions (DPE); Number } \\ \text { and place value (NPV); Problem solving, } \\ \text { reasoning and algebra (PRA); Written } \\ \text { addition and subtraction (WAS) }\end{array}$ | $\begin{array}{l}\text { Recognise, use, compare and order decimal numbers; understand place } \\ \text { value in decimal numbers; recognise that decimals are tenths; round } \\ \text { decimals numbers to the nearest whole number; divide 2-digit numbers by 10 } 10 \\ \text { to get decimal numbers; multiply decimal numbers by 10 to get 2-digit } \\ \text { numbers; divide 3-digit multiples of ten by 100 to get decimal numbers; } \\ \text { multiply decimal numbers by 100 to get 3-digit multiples of ten; add four digit } \\ \text { numbers using written method with answers greater than 10 000 }\end{array}$ |
| 17 | $\begin{array}{l}\text { Mental addition and subtraction (MAS); } \\ \text { Written addition and subtraction (WAS); } \\ \text { Measurement (MEA); Problem solving, } \\ \text { reasoning and algebra (PRA) }\end{array}$ | $\begin{array}{l}\text { Add amounts of money using written methods and mentally using place value } \\ \text { and number facts; choose to add using the appropriate strategy: mental or } \\ \text { written; subtract, choosing appropriate mental strategies: counting up or } \\ \text { taking away (using counting back, place value or number facts); solve } \\ \text { subtractions using a suitable written method (column subtraction) }\end{array}$ |
| 18 | $\begin{array}{l}\text { Measurement (MEA); Problem solving, } \\ \text { reasoning and algebra (PRA) }\end{array}$ | $\begin{array}{l}\text { Tell the time on a 24 hour clock, using am and pm correctly; convert pm } \\ \text { times to 24 hour clock and vice versa; use 24 hour clock in calculating } \\ \text { intervals of time; measure and calculate perimeters of rectilinear shapes } \\ \text { where each side is labelled in cm and m; find missing lengths in rectilinear } \\ \text { composite shapes; find the perimeters of rectilinear shapes with some }\end{array}$ |
| lengths not marked; convert from one unit of length to another; solve word |  |  |
| problems involving lengths including those involving perimeters |  |  |$\}$

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Use the vertical algorithm to multiply 3-digit numbers by 1-digit numbers; explore patterns; use mental strategies and tables facts to divide 2-digit and 3 -digit numbers by 1 -digit numbers to give answers between 10 and 35 , without remainders; solve word problems

| Summer Term 1 |  |  |
| :---: | :---: | :---: |
| Wk | Strands | Weekly Summary |
| 21 | Number and place value (NPV); Problem solving, reasoning and algebra (PRA) | Read, write and compare 4-digit numbers and place on a line; find 1000 more or less than any given number; read, write and compare 5-digit numbers; recognise what each digit represents in a 5-digit number; read, use and compare negative numbers in the context of temperature |
| 22 | Mental addition and subtraction (MAS); Decimals, percentages and their equivalence to fractions (DPE) | Multiply and divide numbers by 10 and 100 including decimals (tenths and hundredths); read and write decimals (to 1 and 2 places), understanding that these represent parts (tenths and hundredths) of numbers; mark 1- and 2place decimals on a line; count in tenths ( 0.1 s ) and hundredths ( 00.1 s ); multiply numbers with up to 2 decimal places by 10 and 100, and divide numbers by 10 and 100; say the number one tenth and one hundredth more or less than a given number; round decimal numbers to the nearest whole number |
| 23 | Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Number and place value (NPV); Written multiplication and division (WMD); Measurement (MEA) | Learn 11 and $12 \times$ tables; develop and use effective mental multiplication strategies; use a vertical written method to multiply 3-digit numbers by 1 -digit numbers; use rounding to estimate answers; use a written method to multiply 3 -digit numbers, including amounts of money by 1 -digit numbers; multiply 2 -digit and 3 -digit numbers by 1 -digit numbers; understand how division 'undoes' multiplication and vice versa; divide above the tables facts using multiples of 10 |
| 24 | Number and place value (NPV); Measurement (MEA); Geometry: properties of shapes (GPS) | Recognise and write Roman numerals to 100; begin to know the history of our number system including 0 ; calculate area and perimeter of rectilinear shapes using multiplication and addition, or counting; recognise, name and classify 2 D shapes identifying regular and irregular polygons; sort 2D shapes according to properties including types of quadrilaterals and triangles; revise 3D shapes, consider 2D-shaped sides on 3D shapes, and sort shapes |
| 25 | Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Fractions, ratio and proportion (FRP) | Understand, read and write 2-place decimals; compare 2-place decimals in the context of lengths; add and subtract 0.1 and 0.01 and say a number one-tenth $(0.1)$ or one-hundredth $(0.01)$ more or less than a given number; revise equivalent fractions; write fractions with different denominators with a total of 1; recognise decimal and fraction equivalents |


| Summer Term 2 |  |  |
| :--- | :--- | :--- |
| Wk | Strands | Weekly Summary |
| 26 | Mental addition and subtraction (MAS); <br> Mental multiplication and division (MMD); <br> Written multiplication and division (WMD); <br> Problem solving, reasoning and algebra <br> (PRA) | Add two 2-digit numbers or a 2-digit number to a 3- or 4-digit number <br> mentally; subtract 2-, 3- and 4-digit numbers using counting up; derive <br> factors of 2-digit numbers and use factors and doubling to solve <br> multiplication mentally; solve integer scaling problems using mental <br> strategies and spot a relationship between products; solve <br> correspondence problems, using a systematic approach and calculate <br> using mental multiplication strategies |
| 27 | Written addition and subtraction (WAS); <br> Problem solving, reasoning and algebra <br> (PRA); Mental addition and subtraction (MAS) | Solve written addition of two 4-digit numbers; add amounts of money <br> (pounds and pence) using column addition; solve 4-digit minus 4-digit <br> and 4-digit minute 3-digit subtractions using written column method <br> (decomposition) and check subtraction with addition; solve word <br> problems choosing an appropriate method |
| 28 | Geometry: position and direction (GPD); <br> Statistics (STA) | Use coordinates to draw polygons; find the coordinates of shapes after <br> translation; draw and interpret bar charts and pictograms; draw line <br> graphs and understand that intermediate points have meaning |
| 29 | Written multiplication and division (WMD); <br> Problem solving, reasoning and algebra <br> (PRA); Mental multiplication and division <br> (MMD); Fractions, ratio and proportion (FRP); | Use the vertical algorithm (ladder) to multiply 3-digit numbers by 1-digit <br> numbers; find non-unit fraction of amounts, using 'chunking'; add <br> fractions with like denominators, including totals greater than 1; divide by <br> 10 and 100 (to give answers with 1 and 2 decimal places) |

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|  | Decimals, percentages and their equivalence <br> to fractions (DPE) |  |
| :--- | :--- | :--- |
| 30 | Mental multiplication and division (MMD); <br> Problem solving, reasoning and algebra <br> (PRA); Written multiplication and division <br> (WMD); Fractions, ratio and proportion (FRP) | Multiply 2-digit numbers by 11 and 12; look for patterns and write rules; <br> multiply 2-digit numbers by numbers between 10 and 20 using the grid <br> method; begin to use the grid method to multiply pairs of 2-digit <br> numbers; use mental strategies and tables facts to divide 2-digit and 3- <br> digit numbers by 1-digit numbers to give answers between 20 and 50, <br> with and without remainders; find non-unit fractions of amounts |

