Michael Faraday Primary School Curriculum Map 2023/24: Maths annlinh

| 4** | Ready to Progress Criteria: |  |  |  |  |  | Autumn | Spring | Summer |
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| EYFS |  |  |  |  |  |  |  |  |  |
| Year 1 |  |  |  |  |  |  |  |  |  |
| Year 2 |  |  |  |  |  |  |  |  |  |


| Year 3 | Number and Place Value I can count from 0 in multiples of $4,8,50$ and 100. I can find 10 or 100 more than or less than a number. I can recognise the place value of each digit in a threedigit number (I understand hundreds, tens and ones). can compare and order numbers up to 1000. I can identify, represent and estimate numbers in different ways. <br> can read and write numbers up to 1000 in numbers and in words. <br> I can use the maths I know to solve number and practical problems. | Addition and Subtraction and and subtract numbers in my head, including: <br> - a three-digit number and ones; <br> a three-digit number and tens; <br> - a three-digit number and hundreds. <br> I can add and subtract numbers with up to three digits, using formal column written methods. <br> I can estimate the answer to a calculation and use inverse (opposite) to check my answers. <br> can solve problems, including missing number facts, place value and more complex addition and subtraction problems. | Multiplication and Division <br> can recall and use me 3,4 and 8 divide. <br> I can write and calculate number sentences for multiplication and division using the times tables I know, including two-digit numbers times one-digit numbers; I can do this in my head and I am moving to formal written methods. I can use the maths I know to solve multiplication and division problems, including missing number facts, positive integer scaling problems and correspondence problems; for example, if two sweets cost 30 p , then four must cost 60p. | Fractions <br> coun up down in tenths and know that tenths link to dividing by ten or ten equal parts. <br> I can recognise, find and write fractions of objects with small denominators, such as finding $3 / 5$ or $3 / 43$ of a set of farm animals. I can recognise and write fractions as numbers with small denominators, such as finding 3 of 20 . <br> I can recognise and show that some fractions with small denominators are the same, such as $3 / 6$ and $2 / 4$, using diagrams to help me. I can add and subtract fractions with he same denominator within one whole. <br> I can compare and order unit fractions, and fractions with the same denominators. <br> can use the maths I know to solve problems with fractions. | $\frac{\text { Measurement }}{\text { I can measure, compare, add }}$ and subtract lengths, measuring in $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$. <br> I can measure, compare, add and subtract mass, measuring in $\mathrm{kg} / \mathrm{g}$. <br> I can measure, compare, add and subtract volume or capacity, measuring in $\mathrm{I} / \mathrm{ml}$. <br> I can measure the perimeter (the distance all the way around) of simple 2 D shapes. <br> I can add and subtract amounts <br> of money in $£$ and $p$ to find $a$ <br> total and give change in <br> practical situations or problems. <br> I can tell and write the time from an analogue clock, including <br> Roman numerals from I to XII, <br> using both 12 -hour and 24 -hour <br> clocks. <br> I can show that I can read, <br> estimate and compare time to <br> the nearest minute, including <br> recording and comparing time in <br> terms of seconds, minutes and <br> hours; I can use vocabulary such <br> as oclock, a.m./p.m., morning, afternoon, noon and <br> midnight. <br> I can show I know the number of <br> seconds in a minute and the number of days in each month, year and leap year. <br> last, such as calculating events taken by particular | Geometry <br> I can draw 2 D shapes and make them using modelling materials. <br> I can make 3D shapes using modelling materials; <br> I can recognise, sort and describe 3D shapes, <br> even when they have been turned or are shown <br> in a different way up. <br> I can recognise angles as a property of shapes or <br> as a way to measure how far <br> something has turned. <br> I can identify right angles and use them to make turns; I know that one right angle makes a quarter turn, two make a half-turn, three make a threequarter turn and four make a full turn or rotation. I can identify if angles are greater than or less than a right angle. <br> I can identify horizontal, vertical and pairs of parallel (side by side) and perpendicular (at an angle of 900 ) lines in shapes. <br> Statistics <br> I can draw bar charts, pictograms and tables. I can read and answer questions about bar charts, pictograms and tables. <br> I can solve one-step and two-step problems using information presented in bar charts, pictograms and tables, such as 'How many more...' or 'How many fewer...'. | Place value Addition and subtraction Multiplication and division <br> BMBT 10 <br> SAFE 9 | Multiplication and division Length and perimeter Fractions Mass and capacity <br> BMBT 11 <br> SAFE 10 | Fractions Money Time Shape statistics <br> BMBT 12 <br> SAFE 11 |
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| Year 4 | Number and Place Value <br> can count in multiples of 6 , <br> 7, 9, 25 and 1000. <br> can find 1000 more or less <br> than a number. <br> can count backwards through zero to include negative numbers. <br> can recognise the place value of each digit in a fourdigit number (l understand thousands, hundreds, tens and ones) <br> can order and compare numbers beyond 1000. I can identify, represent and estimate numbers using example, I can make a reasonable guess how many marbles are in a large jar. I can round any number to I can solve number and practical problems involving increasingly large positive numbers and place value. up to 100 and I know that our number system has changed over time to include zero and place value. | Addition and Subtraction can use column addition and subtraction for numbers up to 4 digits, where appropriate. I can estimate and check my answers to calculations using the inverse (opposite) operation. <br> can solve two-step addition and subtraction problems, deciding which operations and methods to use and why. | Multiplication and Division can know, and can confidently use, all times tables up to $12 \times 12$. <br> I can use place value and known facts to multiply and divide in my head, including: <br> $\cdot$ multiplying by 0 and 1 ; <br> dividing by 1 ; <br> -multiplying together three numbers. <br> I can recognise and use factor pairs and use them to work out calculations in my head. ican use a formal written method of multiplication for multiplying wo-digit and three-digit numbers by a one-digit number. <br> I can solve multiplication and addition problems, including those involving distributive law, to multiply two-digit numbers by one digit numbers, to solve scaling correspondence problems; for example, how many different combination of meals can I make main courses? | Fractions <br> can recognise and show, using diagrams, families of common equivalent fractions <br> hundredils a and down in derstand that a hundredth comes from dividing an object by one hundred or a tenth by ten. <br> I can solve problems with increasingly harder fractions to calculate quantities and divide amounts, including nonunit fractions, where the answers are whole numbers. <br> I can add and subtract fractions with the same denominator. <br> can find and write the decimal equivalents of tenths or hundredths. can find and write decimal equivalents <br> can divide a one or two-digit number by 10 and 100, and know the value of each of the digits in the answer. (Ones, tenths and hundredths). I can round decimals with one decimal place to the nearest whole number. <br> can compare numbers with the same number of decimal places up to two decimal places. <br> can solve simple measure and money problems involving the fractions and decimals to two decimal places. | Measurement <br> I can convert between different units of measure, such as kilometres to metres or hours to minutes. <br> I can measure and calculate the perimeter (the distance all the way around) of <br> rectangular shapes, including <br> squares, in centimetres and metres. <br> I can find the area (the size of the surface) of rectangular shapes by counting squares. <br> I can estimate, compare and calculate different measures, including money in pounds and pence. <br> I can read, write and convert time between analogue and digital 12 - and 24 -hour clocks. I can solve problems by converting hours to minutes; minutes to seconds; years to months; weeks to days. | Geometry <br> I can compare and group different shapes, including quadrilaterals and triangles, based on their properties and sizes; for example, group according to number of sides. <br> I can identify acute and obtuse angles and can compare and order angles by size. <br> I can find lines of symmetry in 2 D shapes. <br> I can complete a shape by using its line of symmetry. <br> I can describe positions on a 2 D grid as coordinates in the first quadrant. <br> I can describe changes in positions as <br> translations (movements) up or down and left or <br> right using the given unit. <br> Position and Direction <br> I can plot specified points and draw sides to complete a given polygon (shape with at least 3 straight sides and angles). <br> Statistics <br> I can interpret and record continuous and discrete data using different types of graphs, including bar charts and time graphs. I can solve problems involving comparisons, sums and differences using information presented in bar charts, pictograms, tables and other graphs. | Place value Addition and subtraction Area Multiplication and division <br> BMBT 13 <br> SAFE 12 | Multiplication and division Length and perimeter Fractions Decimals <br> BMBT 14 <br> SAFE 13 | Decimals Money Time Shape Statistics Position and direction <br> BMBT 15 SAFE 14 |
| Year 5 | Number and Place Value can read, write, order and compare numbers to at least value of each digit. I can count forwards or backwards from any number in steps of 10,100 and 1000 000. <br> I can interpret negative numbers, count forwards and backwards with positive and negative whole numbers, including through zero. | Addition and Subtraction can add and subtract whole numbers with more than 4 digits using formal written methods (columns). I can add and subtract increasingly large numbers in my head. <br> can use rounding to check answers and determine, in the context of a problem, levels of accuracy. I can solve addition and subtraction problems with several steps, choosing which | Multiplication and Division can identify multiples and factors, including all factor pairs, of a number and identify common factors of two numbers. can understand and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. can tell you if a number up to 100 is prime and I know the prime numbers up to 19. I can multiply numbers up to 4 digits by a one- or two-digit number using a formal | Fractions whose denominators are all multiples of the same number. <br> I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number. <br> can add and subtract fractions with | Measurement <br> can convert between different units of metric measurement, such as kilometre and metre; centimetre and metre centimetre and millimetre; gram and kilogram; litre and millilitre. I can understand and use approximate equivalences between common imperial units, such as, inches, pounds, pints and metric units. the perimete (the distance all the way around) of composite rectilinear shapes shapes | Geometry <br> Ican identify 3 D shapes, including cubes and cuboids, from 2 D representations. I can use the properties of rectangles to find out related facts and find missing lengths and angles. <br> I can tell the difference between regular and irregular polygons (shape with at least 3 straight sides and angles) based on reasoning about equal sides and angles. <br> I can show I know angles are measured in degrees and estimate and compare acute, obtuse and reflex angles. <br> I can draw given angles and measure them in degrees (total $360^{\circ}$ ). | Place value Addition and subtraction Multiplication and division Fractions <br> BMBT 16 SAFE 15 | Multiplication and division Fractions Decimals and percentages Perimeter and area Statistics <br> BMBT 17 | Shape <br> Position and direction Decimals Negative numbers Converting units Volume |


|  | I can round any number up to 1000000 to the nearest 10 100, 1000, 10000 and 100000. <br> I can solve number problems and practical problems using all that I know about number and place value. I can read Roman numerals to $1000(M)$ and recognise years written in Roman numerals. | operation to use and can explain why. | written method, including lo multiplication for two-digit numbers. <br> I can multiply and divide numbers <br> in my head using the number facts I know. <br> I can divide numbers up to 4 digits <br> by a one-digit number using the <br> formal written method of short <br> division and I know what to do <br> about the remainder. <br> I can multiply and divide any <br> whole number and those <br> and 1000. <br> I can recognise and use square numbers and cube numbers and use the notation for squared (2) and cubed (3). <br> I can solve multiplication and know problems using what squares and cubes. <br> I can solve problems that use any <br> of addition, subtraction, <br> multiplication and division or a combination of these, including understanding the meaning of the equals sign ( $=$ ). <br> I can solve multiplication and division problems, including scaling by simple fractions and simple rates. simple rates. | denominators same number. <br> I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. I can read and write decimal numbers as tractions. <br> and connect the and use thousandths hundredths and decimal equivalents. Ican round decimals with two decimal places to the nearest whole number and to one decimal place. numbers with up to three decimal places. <br> ican solve problems involving number up to three decimal places. I can show that $\mid$ know what $\%$ means, and write percentages as a fraction, with denominator 100 and as a decimal. <br> can solve problems using what I know about percentage and decimal denominator of a multiple of 10 or 25 . | (shapes made up of 2 or more shapes with straight lines) in centimetres and metres. I can calculate and compare the area (the size of the surface) of rectangles, including squares, using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes. I can estimate volume (for example, using 1 cm 3 blocks to build cuboids) and capacity (for example, using water). I can solve problems involving converting between different units of time. <br> I can use all four operations to solve problems involving measures (for example, length, mass, volume, money) using decimal notation, including scaling. | I can identify angles at a point on a straight line and half a turn (total $180^{\circ}$ ). <br> I can identify other multiples of $90^{\circ}$. <br> Position and Direction <br> I can identify, describe and represent the position of a shape following a reflection or translation (movement), using the correct language and know that the shape has not <br> changed. <br> Statistics <br> I can solve comparison, sum and difference problems using information presented in a line graph. <br> I can complete, read and interpret information in tables, including timetables. |  | SAFE 16 | BMBT 18 SAFE 17 |
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| Year 6 | Number and Place Value <br> I can read, write, order and compare numbers up to 10 000000 and determine the value of each digit. <br> I can round any whole number to the required degree of accuracy. I can use negative numbers in context and calculate intervals across zero. I can solve number and practical problems that involve all the above <br> Algebra <br> I can use simple formulae. I can generate and describe linear number sequences. I can express missing number problems algebraically. I can find pairs of numbers that satisfy an equation with two unknowns. <br> I can establish the number of possibilities for combinations of two variables. | Addition and Subtraction <br> I can solve addition and <br> subtraction multi-step problems <br> in contexts, deciding which <br> operations and methods to use <br> and why. <br> I can perform mental <br> calculations, including with <br> mixed operations and large <br> numbers. <br> I can use my knowledge of the order of operations to carry out calculations involving the four operations. <br> I can solve problems involving addition, subtraction, <br> multiplication and division and use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. <br> Ratio and Proportion <br> I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. <br> I can solve problems involving the calculation of percentages (for example, of measures such as $15 \%$ of 360 ) and the use of percentages for comparison. I can solve problems involving similar shapes where the scale factor is known or can be found. I can solve problems involving unequal sharing and grouping, using knowledge of fractions and multiples. | Multiplication and Division <br> ti-digit numbers up to 4 digits by a two-digit whole number, using the formal written method of long multiplication. I can 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 ing, as appropriate for the context. <br> I can divide numbers up to 4 digits by a two-digit number, using the formal written method of short division where appropriate, <br> to the context. <br> I can identify common factors, common multiples and prime numbers. <br> I can perform mental calculations, including with mixed operations and large numbers. <br> I can use my knowledge of the order of operations to carry out calculations involving the four operations. I can solve prations. addition, subtraction involving multiplication and division. I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. | Fractions <br> use common factors to simplify <br> fractions and use common multiples <br> to express fractions in the same denomination. <br> I can compare and order fractions, including fractions $>1$ <br> can add and subtract fractions with <br> different denominators and mixed <br> numbers, using the concept of <br> equivalent fractions. <br> 都 <br> fractions, writing the answer in its simplest form. <br> Ican divide proper fractions by whole numbers. <br> can associate a fraction with division <br> and calculate decimal fraction equivalents. <br> I can identify the value of each digit in <br> numbers given to three decimal places and multiply and divide numbers by 10,100 and 1000 , giving answers up to three decimal places. I can multiply one-digit numbers with up to two decimal places by whole numbers. <br> can use written division methods in cases where the answer has up to two decimal places. I can solve problems which require answers to be rounded to specified degrees of accuracy. equivalences between simple fractions, decimals and percentages, including in different contexts. | Measurement <br> soive problems involving <br> he calculation and conversion of <br> units of measure, <br> using decimal notation, up to <br> three decimal places where appropriate. <br> can use, read, write and convert <br> between standard units, <br> converting measurements of <br> length, mass, volume and time of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. <br> can convert between miles and kilometres. <br> the same areas can have meters and <br> I can recognise when it is possible to use formulae for area and volume of shapes. <br> can calculate the area of parallelograms and triangles. i can calculate, estimate and compare the volume of cubes including cubic centimetres $\left(\mathrm{cm}^{3}\right)$ and cubic metres ( $\mathrm{m}^{3}$ ) and extend to other units (for example, $\mathrm{mm}^{3}$ and $\mathrm{km}^{3}$ ). | Geometry <br> I can draw 2D shapes using given dimensions and angles. <br> I can recognise, describe and build simple 3D shapes, including making nets. <br> I can compare and classify shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. <br> I can illustrate and name parts of circles, including radius, diameter and circumference, and know that diameter is twice the radius. I can recognise angles where they meet at a point, are on a straight line or are vertically opposite and find missing angles. <br> Position and Direction <br> I can describe positions on the full coordinate grid (all four quadrants). <br> I can draw and translate simple shapes on the coordinate plane and reflect them in the axes. <br> Statistics <br> I can interpret and construct pie charts and line graphs and use these to solve problems. I can calculate and interpret the mean as an average. | Place value Addition, subtraction multiplication and division Fractions Converting units <br> BMBT 19 <br> SAFE 18 | Ratio Algebra Decimals Fractions, decimals and percentages Area, perimeter and volume Statistics <br> BMBT 20 SAFE 19 | Shape Position and direction <br> BMBT Platinum SAFE 20 |

