



Mathematics Curriculum

Mathematics Overview

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|  | **Autumn Term** | **Spring Term** | **Summer Term** |
| Nursery | Uses some number names in play  Counting in every day contexts  Number rhymes  React to changes in amounts saying ‘lots’, ‘more’, ‘same’, ‘different’  Compare sizes, weights  Notice patterns and arrange  Begin to show an interest in representing number – tracing numbers with fingers etc  Begin to show an interest in numerals in the environment  Begin to recite numbers in order to 5  Talk about and identify numbers & numerical patterns around them | Begin fast recognition of up to 3 objects (subitising)  Say 1 number for each item in order 1 – 5  Show finger numbers to 5  Link numerals to amounts  Experiment with their own symbols and marks  Solve real world maths problems with numbers up to 5  Compare quantities using language more / fewer than  Talk about and explore 2D using informal and mathematical language  Understand position through words alone  Make comparisons between objects relating to size, length and capacity  Select shapes appropriately and combine shapes to make new ones  Begin to describe a sequence of events | Subitising  Recite numbers past 5  Talk about and explore 2D and 3D shapes  Describe and discuss familiar routes and locations  Make comparisons between objects relating weight  Notice and correct errors in repeating patterns  Begin to describe a sequence of events using words like first, then, next  Understand that anything can be counted, not just objects e.g. claps, steps etc  To know that a given number can be made by adding different amounts together, up to 5 e.g. 1 and 4 |
| Reception | Match and sort  Compare amounts, size, mass and capacity  Exploring pattern  Representing, comparing and composition of 1, 2 & 3  Circles and triangles  Positional language  Presenting numbers to 5  One more one less  Shapes with 4 sides  Time | Introducing zero  Comparing numbers to 5  Composition of 4 & 5  Comparing mass and capacity  6 , 7 & 8  Making pairs  Combining two groups  Length and height  Time  9 & 10  Comparing numbers to 10  Bonds to 10  3D shape  Pattern | Building numbers beyond 10  Counting patterns beyond 10  Special reasoning  Match, rotate and manipulate  Adding more and taking away  Compose and decompose  Doubling  Sharing & grouping  Even and odd  Visualise and build  Deepening understanding  Patters and relationships  Mapping |
| **Year 1** | Number: Place Value (within 10)  Number: Addition and Subtraction (within 10)  Geometry: Shape  Number: Place Value within 20 | Number: Addition and Subtraction (within 20)  Number: Place Value (within 50) – Multiples of 2, 5 and 10 to be included  Measurement: Length and Height  Measurement: Weight and Volume | Number: Multiplication and Division  Number: Fractions  Number: place value within 100  Geometry: Position and Direction  Measurement: Money and Time |
| **Year 2** | Number: Place Value  Number: Addition and Subtraction  Measurement: Money  Number: Multiplication and Division | Number: Multiplication and Division  Statistics  Geometry: Properties of Shape  Number: Fractions | Measurement: Length and Height  Position and Direction  Problem solving and efficient methods  Measurement: Time  Measurement: Mass, Capacity and Temperature |
| **LKS2**  **(Y3/4)** | Number: Place Value  Number: Addition and Subtraction  Number: Multiplication and Division | Number: Multiplication and Division  Measurement: Length, Perimeter and Area  Number: Fractions and decimals  Measurement: Mass and Capacity | Number: Decimals (including money)  Measurement: Time  Statistics  Geometry: Properties of shape |
| **UKS2 (Y5/6)** | Number: Place Value  Number: Four operations  Number: Fractions | Number: Ratio, Decimals, Percentages, Algebra  Measurement: Converting Units and volume  Measurement: Perimeter and Area (from Y5)  Statistics | Geometry: Properties of Shape  Geometry: Position and Direction  Problem Solving and Investigations |

Core Skills Overview

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|  | **Addition** | **Subtraction** | **Multiplication** | **Division** | **Fractions** | **Percentages** |
| **Reception** | Link the number symbol (numeral) with its cardinal number value.  Count beyond ten.  Compare numbers.  Understand the ‘one more than/one less than’ relationship between consecutive numbers.  Explore the composition of numbers to 10.  Automatically recall number bonds for numbers 0–5 and some to 10.  Subitise | |  | |  |  |
| **Year 1** | 1. Count forwards across 100 from any given number 2. Add one digit and two digit numbers to 20 | a) Count backwards across 100 from any given number  b)Subtract one digit and two digit numbers to 20 |  |  | a) Find half of a quantity  b)Find quarter of a quantity |  |
| **Year 2** | 1. Count forwards in steps of 2,3,5 from 0 2. Count forwards in tens from any number 3. Add a two-digit and one-digit number mentally (up to 100) 4. Add a two-digit and tens mentally (up to 100) 5. Add two two-digit numbers mentally (up to 100) 6. Add three one-digit numbers mentally (up to 100) | 1. Count backwards in tens from any number 2. Subtract a two-digit and one-digit number mentally (up to 100) 3. Subtract a two-digit and tens mentally (up to 100) 4. Subtract two two- digit numbers mentally (up to 100) | a) Use multiplication facts for the 2, 5 and 10 multiplication tables | Use division facts for the 2, 5 and 10 multiplication tables | 1. Find one third of a quantity 2. Find two quarters of a quantity   c) Find three quarters of a quantity |  |
| **Year 3** | 1. Add multiples of 10 or 100 to a number (up to 999) 2. Add numbers up to 3 digits using formal method of column addition | a) Subtract multiples of 10 or 100 from a number (up to 999)  b) Subtract numbers up to 3 digits using formal method of column subtraction | 1. Multiply a two digit by a one digit using mental methods and progressing to formal written methods (2, 3, 4, 5 and 8) 2. Multiply a whole number by 10 3. Multiply more than two numbers together (2, 3, 5, 5 and 8) | 1. Use known multiplication facts to create associated division facts 2. Divide one or two digit numbers by 10 | a) Add and subtract fractions with the same denominator within one whole  b) Find fractions of quantities (up to 100) where the denominator is 2, 3, 4,  5, 8 or 10. |  |
| **Year 4** | 1. Add multiples of 10, 100 and 1,000 to a number (up to 9,999) 2. Add numbers up to 4 digits using formal method of column addition 3. Add with decimals (up to tenths and hundredths) | 1. Subtract multiples of 10, 100 and 1,000 from a number (up to 9,999) 2. Subtract numbers up to 4 digits using formal method of column subtraction   c) Subtract with decimals (up to tenths and hundredths) | 1. Multiply 2 and 3 digit numbers by a 1-digit number using a formal written method 2. Multiply a whole number by 100 3. Multiply more than two numbers together | 1. Use known multiplication facts to create associated division facts 2. Divide one or two digit numbers by 100   c) Divide multiples of 10, 100 and 1,000 by a single digit number using associated division facts | a) Add and Subtract fractions where the answer may be an improper fraction  b) Find fractions of quantities using known multiplication facts |  |

Core Skills Overview

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|  | | **Addition** | | **Subtraction** | | **Multiplication** | | **Division** | **Fractions** | | **Percentages** | |
| **Year 5** | | 1. Add multiples of 10, 100, 1,000, 10,000 and 100,000 to a number (up to 999,999) 2. Add numbers with more than 4 digits using formal method of column addition 3. Add decimals (where two numbers have a different number of decimal places eg 14.7 + 8.65) 4. Apply knowledge of partitioning with numbers up to 1,000,000 | | 1. Subtract multiples of 10, 100, 1,000,   10,000 and  100,000 from a number (up to 999,999)   1. Subtract numbers with more than 4 digits using formal method of column subtraction   c) Subtract decimals  (where two numbers have a different number of decimal places eg 14.7 - 8.65) | | 1. Multiply a 3-digit number by a 2-digit number using formal method of long multiplication 2. Multiply whole numbers by 10, 100 and 1,000 (where the answer is no greater than 999,999) 3. Multiply decimal numbers by 10, 100 and 1,000 where the quotient may be a decimal 4. Recognise and use square and cube numbers 5. Multiply multiples of 10 by 10, 100 or 1,000 (e.g. 30 x 400) | | 1. Divide numbers up to 4 digits by a 1- digit number using the formal written method of long division (recording with a remainder where required) 2. Divide whole numbers by 10, 100 and 1,000 (where the quotient contains a decimal and the dividend may contain a decimal) | 1. Add fractions with the same denominators and convert the answer from improper fractions to mixed numbers 2. Add and subtract fractions where there are different denominators and one fraction is a multiple of the other (and one fraction may be a mixed number) 3. Multiply proper fractions and mixed numbers by whole numbers 4. Find fractions of quantities using formal calculation strategies | | 1. Find 10% of a number 2. Find a multiple of 10% of a number 3. Find 5% of a number | |
| Year 6 | | 1. Add multiples of 10, 100, 1,000, 10,000, 100,000 and 1,000,000 to a number (up to 9,999,999) 2. Add and subtract using negative numbers through zero 3. Use BIDMAS to identify the correct order of operations | a) Subtract multiples of 10, 100, 1,000,  10,000, 100,000 and  1,000,000 from a number up to 9,999,999) | 1. Multiply a 4-digit number by a 2-digit number using the formal method of multiplication 2. Multiply one digit numbers with up to two decimal places by whole numbers 3. Multiply a tenths number that is less than one by a multiple of 10 or 100 (e.g. 0.4 x 60) 4. Multiply a number with decimals by a two digit number using the formal method of long multiplication (e.g. 5.1 x 28) | | 1. Divide numbers up to 4 digits by a 2- digit number using the formal written method of long division (where the dividend may include a fraction) 2. Divide numbers up to 4 digits by a 1- digit number using the formal written method of short division (where the dividend may include a fraction) | | | 1. Add and subtract fractions with different denominators (using two or three fractions) 2. Add and subtract a mixed number to a fraction where there are different denominators 3. Multiply pairs of proper fractions writing the answer in its simplest form Divide proper   fractions by whole numbers | | 1. Find a multiple of 5% of a number 2. Find 1% of a number   Find a multiple of 1% of a number | |

KPI Coverage: EYFS

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Number and Place value** | **Addition and**  **subtraction** | **Multiplication and division** | **Fractions** | **Measurement** | **Properties of Shape** | **Position and**  **Direction** | **Statistics** |
|  |  |  |  |  |  |  |  |
| **Birth to 3**  Take part with number rhymes  Compare amounts saying lots, more or same  Count in everyday contexts sometimes skipping numbers  React to changes in amounts in a group of objects  **End of Nursery**  Counts to 10  Uses number names accurately up to 10  Compares 2 groups of objects and knows how many objects are in a set (up to 10)  Realises that not only objects can be counted (e.g stamps, claps)  Matches numerals and quantities (up to 5)  Recognises some numbers of personal significance.  Counts an irregular arrangement of objects up to 10 (touch counting)  Represent numbers using marks on paper or pictures  **End of Reception - Expected (ELG)**  Count reliably with numbers from 1 to 20  Count objects by sight (without touching) up to 20  Correctly form (and orientate) numerals to 10  Place numbers (within 20) in order | **End of Nursery**  Uses the language of more and less  **End of Reception - Expected (ELG)**  Say which number is one more and one less than a given number up to 20  Add and subtract two single digit numbers using objects and quantities. | **End of Reception - Expected (ELG)**  Solve problems, including doubling, halving and sharing. |  | **Birth to 3**  Compare sizes, weights etc. using gesture and language - ‘bigger/little/smaller’, ‘high/low’, ‘tall’, ‘heavy’.  **End of Nursery**  Make comparisons between objects relating to size, length, weight and capacity  **End of Reception - Expected (ELG)**  Order two or three items by length or height  Order two items by weight | **Birth to 3**  Complete inset puzzles  Climb and squeeze into different spaces  **End of Nursery**  Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: ‘sides’, corners’; ‘straight’, ‘flat’, ‘round’.  Select shapes appropriately.  Combine shapes to make new ones  **End of Reception - Expected (ELG)**  Name and recognise 3D shapes – cube, cuboid, sphere, cylinder and cone.  Recognise and name 2D shapes – square triangle rectangle circle. | **Birth to 3**  Complete or arrange patterns  **End of Nursery**  Understand position through words alone and describe familiar routes. Discuss routes and locations  Talk about and identify simple patterns  Notice and correct errors in repeated patterns  **End of Reception - Expected (ELG)**  Create simple patterns | **End of Nursery**  Separates groups of objects in different ways  **End of Reception - Expected (ELG)**  Sort objects into groups based on their characteristics. |

KPI Coverage: Year 1

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Number and Place value** | **Addition and**  **subtraction** | **Multiplication and division** | **Fractions** | **Measurement** | **Properties of Shape** | **Position and**  **Direction** | **Statistics** |
|  |  |  |  |  |  |  |  |
| Counts to and across 100,  forwards and backwards, beginning with 0 or 1, or from any given number.  Counts, reads and writes numbers to 100 in numerals; counts in multiples of twos, fives and tens.  Given a number, identifies one more and one less  Read and write numbers from 1 to 20 in numerals and words | Represents and uses number bonds and related subtraction facts within 20.  Add and subtract one-digit and two-digit numbers to 20, including zero  Solve one-step problems that involve addition and subtraction | Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. | Recognises, finds and names a half as one of two equal parts of an object, shape or quantity  Recognises, finds and names a quarter as one of four equal parts of an object, shape or quantity | Compares, describes and solves practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/half];  Compares, describes and solves practical problems for mass/weight [for example, heavy/light, heavier than, lighter than];  Compares, describes and solves practical problems for capacity and volume [for example, full/empty, more than, less than, half, half full, quarter];  Compares, describes and solves practical problems for time [for example, quicker, slower, earlier, later].  Tells the time to the hour and half past the hour and draws the hands on a clock face to show these times. | Recognises and names common 2-D and 3-D shapes | Describe position, direction and movement including whole, half, quarter and three-quarter turns |  |

KPI Coverage: Year 2

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Number and Place value** | **Addition and subtraction** | **Multiplication and division** | **Fractions** | **Measurement** | **Properties of Shape** | **Position and Direction** | **Statistics** |
|  |  |  |  |  |  |  |  |
| Counts in steps of two, three, and five from 0, and in tens from any number, forward and backward  Partition two digit numbers into different combinations of tens and ones  Compares and orders numbers from 0 up to 100 and can use < > and = correctly.  Uses place value and number facts to solve problems  Read and write numbers to at least 100 in numerals and words | Solves problems with addition and subtraction by using concrete objects and pictorial representations, including those involving numbers, quantities and measures  Solves problems with addition and subtraction by applying an increasing knowledge of mental and written methods.  Can check answers are reasonable by using inverse operations and estimation  Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 | Recalls and uses multiplication and division facts for the two, five and 10 multiplication tables, including recognising odd and even numbers  Solves problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | Recognises, finds, names and writes fractions 1/3, 1/4,  2/4, 1/2  and 3/4 of a length, shape, set of objects or quantity  Recognise the equivalence of 2/4 and 1/2 | Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit  Compare and order lengths, mass, volume/capacity  Read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given  Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times  Use different coins to make the same amount  Solves simple problems in a practical context involving addition and subtraction of money of the same unit including giving change  Know the number of minutes in an hour and the number of hours in a day | Compares and sorts common 2- D and 3-D shapes and everyday objects using knowledge of their properties  Identify and describe the properties of 2D shapes including the number of sides, line of symmetry  Identify and describe the properties of 3D shapes including number of edges, vertices and faces | Use mathematical vocabulary to describe position, direction and movement including movement in a straight line, and distinguishes between rotation as a turn and in terms of right angles for quarter, half and three- quarter turns (clockwise and anti- clockwise) | Asks and answers questions about totalling and comparing categorical data  Interpret and construct simple pictograms, tally charts, bock diagrams and simple tables |

KPI Coverage: Year 3

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| **Number and Place**  **value** | **Addition and subtraction** | **Multiplication and division** | **Fractions** | **Measurement** | **Properties of Shape** | **Position and**  **Direction** | **Statistics** |
|  |  |  |  |  |  |  |  |
| Can find 10  or 100 more or less than a given number  Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones)  Compare and order numbers up to 1000  Read and write numbers up to 1000 in numerals and words  Count from 0 in multiples of 4, 8, 50 and 100 | Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction  Add and subtract mentally including 3 digit numbers with ones, tens and hundreds  Estimate the answer to a calculation and use the inverse to check | Recalls and uses multiplication and division facts for the multiplication tables three, four and eight  Calculates using the multiplication tables that are known including for two-digit numbers times one digit numbers using mental and progressing to formal written methods | Counts up and down in tenths; recognises that tenths arise from dividing an object into 10 equal parts and in dividing one- digit numbers or quantities by 10  Recognises, finds and writes fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators  Recognises and shows, using diagrams, equivalent fractions with small denominators  Add and subtract fractions with the same denominator within one whole  Compare and order unit fractions with the same denominator | Measures, compares, adds and subtracts lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)  Tells and writes the time from an analogue clock and 12-hour and 24-hour clocks  Measure the perimeter of simple 2-D shapes  Know the number of seconds in a minute and the number of days in each month, year and leap year | Identifies right angles, recognises that two right angles make a half- turn, three make three quarters of a turn and four a complete turn  Identifies whether angles are greater than or less than a right angle  Recognise 3D shapes in different orientations |  | Interprets and presents data using bar charts, pictograms and tables  Solve one-step and two-step problems using information presented in scaled bar charts, pictograms and tables |

KPI Coverage: Year 4

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| **Number and Place**  **value** | **Addition and subtraction** | **Multiplication and division** | **Fractions** | **Measurement** | **Properties of Shape** | **Position and**  **Direction** | **Statistics** |
|  |  |  |  |  |  |  |  |
| Counts backwards through zero to include negative numbers  Orders and compares numbers beyond 1,000  Rounds any number to the nearest 10, 100 or  1,000  Read Roman numerals to 100 (I to C)  Count in multiplies of 6, 7, 9. 25 and 1000 | Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate  Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why | Recalls multiplication and division facts for multiplication tables up to 12 x 12  Multiply two- digit and three-digit numbers by a one-digit number using formal written layout  Recognise and use factor pairs | Recognises and shows, using diagrams, families of common equivalent fractions  Counts up and down in hundredths; recognises that hundredths arise when dividing an object by 100 and dividing tenths by 10  Rounds decimals with one decimal place to the nearest whole number  Solves simple measure and money problems involving fractions and decimals to two decimal places  Compares and orders numbers with the same number of decimal places up to 2 decimal places.  Recognise and write decimal equivalents to ¼, ½, ¾  Add and subtract fractions with the same denominator | Converts between different units of measure eg kilometre to metre; hour to minute  Measure and calculate the perimeter of a rectilinear figure  Estimate, compare and calculate different measures, including money in pounds and pence  Read, write and convert time between analogue and digital 12 and 24 hour clocks  Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days | Compares and classifies geometric shapes, including quadrilaterals and triangles, based on their properties and sizes  Complete a simple symmetric figure with respect to a specific line of symmetry  Identify acute and obtuse angles and compare and order angles up to two right angles by size  Identify lines of symmetry in 2D shapes presented in different orientations | Plots specified points and draws sides to complete a given polygon  Describes positions on a 2D grid as coordinates in the first quadrant  Describe movements between positions as translations of a given unit to the left/right and up/down | Solves comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs  Interpret and present discrete and continuous data using appropriate graphical methods |

KPI Coverage: Year 5

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| **Number and Place**  **value** | **Addition and subtraction** | **Multiplication and division** | **Fractions** | **Measurement** | **Properties of Shape** | **Position and**  **Direction** | **Statistics** |
|  |  |  |  |  |  |  |  |
| Round any  number up  to 1 000 000  to the  nearest 10,  100, 1000,  10 000 and  100 000  Read, write, order and compare numbers to at least 1,000,000  Interpret negative numbers in context  Read Roman numerals to 1000 (M) and recognise years written in Roman numerals | Solve addition  and  subtraction  multi-step  problems in  contexts,  deciding which  operations and  methods to use  and why.  Add and subtract whole numbers with more than 4 digits, including using formal written methods  Add and subtract numbers mentally with increasingly larger numbers | Identifies  multiples and  factors  including  finding all  factor pairs of  a number and  common  factors of two  numbers  Solves  problems  involving  multiplication  and division  Apply  knowledge  factors and  multiples,  squares, cubes  and primes.  Long  multiplication  for three digit  numbers by  two digit  numbers  Divide  numbers up to  4 digits by a  one-digit  number using  the formal  written  method of  short division  and interpret  remainders  appropriately  for the context  Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000  Solve problems involving multiplication and division, including scaling by simple fractions | Compares and orders fractions whose denominators are all multiples of the same number  Reads and writes decimal numbers as fractions  Recognise mixed number and improper fraction and convert one form to another  Solves problems which require knowing percentage and decimal equivalents  Multiply proper fractions and mixed numbers by whole numbers  Recognise the per cent symbol and write percentages as a fraction with denominator of 100 and as a decimal | Converts between different units of metric measure (eg kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)  Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres  Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²)  Solve problems involving converting between units of time | Identify: (i)  angles at a  point and one  whole turn  (total 360°)  (ii) angles at  a point on a  straight line  and half a  turn (total  180°) (iii)  other  multiples of  90°  Identify 3D shapes from 2D representations  Estimate and compare acute, obtuse and reflex angles  Use the properties of rectangles to deduce related in facts and find missing lengths and angles  Distinguish between regular and irregular polygons | Identify, describe and represent the position of a shape following a reflection or translation and know that the shape has not changed | Solve comparison, sum and difference problems using information presented in a line graph  Complete, read and interpret information in tables, including timetables |

KPI Coverage: Year 6

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| **Number and Place value** | **Addition and subtraction** | **Multiplication and division** | **Fractions** | **Measurement** | **Properties of Shape** | **Position and**  **Direction** | **Statistics** |
|  |  |  |  |  |  |  |  |
| Round any whole number to a required degree of accuracy  Read, write, order and compare numbers up to 10,000,000  Uses negative numbers in context and calculates intervals across zero | Solve addition and subtraction multi-step problems in context  Solve problems involving addition, subtraction, multiplication and division  Perform mental calculations including with mixed operations and large numbers | Multiplies multi-digit numbers up to four digits by a two digit whole number using the formal written method of long multiplication  Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context  Use their knowledge of the order of operations to carry out calculations involving the four operations  Identify common factors, multiples and prime numbers  Multiple and divide numbers by 10, 100 and 1000 giving answers up to three decimal places | Solve problems involving percentages and fractions of amounts in context (including inverse and measures)  Recalls and uses equivalences between simple fractions, decimals and percentages, including in different contexts  Compare and order fractions including those greater than 1  Add and subtract fractions with different denominators and mixed numbers  Multiple fractions by both fractions and integers  Divide proper fractions by whole numbers | Uses, reads, writes and converts 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  Calculate the area of parallelograms and triangles  Recognise when it is possible to use formulae for area and volume of shapes | Compares and classifies geometric shapes based on their properties and sizes and finds unknown angles in any triangles, quadrilaterals and regular polygons  Draw 2-D shapes using given dimensions and angles  Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. | Draws and translates simple shapes on the coordinate plane and reflects them in the axes  Describes positions on the full coordinate grid (all four quadrants) | Interprets pie charts and line graphs and uses these to solve problems  Calculates and interprets the mean as an average |

Y1 Maths Learning Journey



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|  | **Objectives** |
|  | **EXS** |
| 1 | I can count up to and over 100 and back again |
| 2 | I can count, read and write numbers to 100. I can also skip count in two, fives and tens |
| 3 | I can find out what is one more or one less than a number |
| 4 | I can use my number bonds and subtract with numbers less than 20 |
| 5 | I can find halves using objects, shapes and numbers |
| 6 | I can solve problems that involve measuring length and height |
| 7 | I can solve problems that involve measuring weight |
| 8 | I can solve problems that involve measuring capacity and volume |
| 9 | I can solve problems that involve time |
| 10 | I can tell the time to the hour and half hour and draw the hands on a clock face to show this |
| 11 | I can identify 2-D shapes and name them |
| 12 | I can identify 3-D shapes and name them |
|  | **GDS** |
|  | Apply my mathematical skills to different contexts. |
|  | Cope with reasoning and deeper thinking mathematical problems. |
|  | Solve a one-step problem involving addition and subtraction. |

Y2 Maths Learning Journey



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|  | **Objectives** |
|  | **EXS** |
| 1 | I can skip count in steps of two, three and five from zero. I can also skip count in tens from any number backwards and forwards. |
| 2 | I can partition numbers into tens and ones in different ways |
| 3 | I can put numbers in order from smallest to largest using the correct symbols (<, >, =). I can also compare numbers. |
| 4 | I can use what I know about place value and number to solve problems |
| 5 | I can solve addition and subtraction problems that involve numbers and measures. I can use Dienes and other objects to help |
| 6 | When solving addition and subtraction problems, I can use different strategies to help me |
| 7 | I can check my answers by estimating and using the inverse operation |
| 8 | I know my two, five and ten times tables. I also know the division facts linked to them. I also know my odd and even numbers |
| 9 | I can solve multiplication and division problems using different strategies and resources to help me (arrays, counters…) |
| 10 | I can find: 1/3, 1/4, 2/4, 1/2 and 3/4 of a length, shape or number |
| 11 | I can estimate and measure length, height, mass, temperature, capacity and length. I use the correct units when recording. |
| 12 | I am able to read scales when all the numbers on the scale are given |
| 13 | I can tell the time to the nearest five minutes as well as quarter past and quarter to. I can draw hands on a clock face to show this. |
| 14 | I can use different coins to make the same amount of money |
| 15 | Solves simple problems in a practical context involving addition and subtraction of money of the same unit including giving change |
| 16 | Compares and sorts common 2D and 3D shapes and everyday objects using knowledge of their properties |
| 17 | Use mathematical vocabulary to describe position, direction and movement including movement in a straight line, and distinguishes between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) |
| 18 | Asks and answers questions about totalling and comparing categorical data |
|  | **GDS** |
| 1 | read scales where not all numbers on the scale are given and estimate points in between |
| 2 | recall and use multiplication and division facts for 2, 5 and 10 and make deductions outside known multiplication facts |
| 3 | use reasoning about numbers and relationships to solve more complex problems and explain their thinking |
| 4 | solve unfamiliar word problems that involve more than one step |
| 5 | read the time on a clock to the nearest 5 minutes |
| 6 | describe similarities and differences of 2-D and 3-D shapes, using their properties |

Y3 Maths Learning Journey



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|  | **Objectives** |
|  | **EXS** |
| 1 | I can find 10/100 more or less than a number |
| 2 | I know the place value facts of a number (hundreds, tens and ones) |
| 3 | I can use my number and place value skills to solve problems |
| 4 | I can read and write numbers up to 1000 using digits and words |
| 5 | I can add and subtract with numbers up to 1000 using the column method |
| 6 | I know my three, four and eight times tables and the division facts that are linked to them |
| 7 | I can multiply a two digit number by a one number using the times tables facts that I know. |
| 8 | I know what tenths are and count up and down in tenths |
| 9 | I can find the fraction of an amount of objects. I can do this with unit fractions and non-unit fractions |
| 10 | I can show my understanding of equivalent fractions using diagrams |
| 11 | I can measure, compare, add/subtract length, mass, volume and capacity. I use the correct unit of measurement when recording |
| 12 | I can tell and write the time using an analogue clock. I can also read the time using 24 hour clock. |
| 13 | I can measure the perimeter of 2-D shapes |
| 14 | I can make the connection between right angles and turns. I can also say whether angles are greater/less than right angles. |
|  | **GDS** |
| 1 | I spot patterns in results and use them to find other possibilities. |
| 2 | I understand a general statement and find particular examples that meet it. |
| 3 | I am confident to respond to ‘What if?’ questions. |
| 4 | I can explain to my peers how I have reached an answer and justify my reasoning. |
| 5 | I provide a convincing argument for the methods and solutions I use or arrive at. |

Y4 Maths Learning Journey



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|  | **Objective** |
|  | **EXS** |
| 1 | I can count backwards through zero into negative numbers |
| 2 | I can put numbers greater than 1,000 in order. I can also compare numbers using the symbols <, > and =. |
| 3 | I can round numbers to the nearest 10, 100 or 1,000 |
| 4 | I can read Roman Numerals to 100 |
| 5 | I can solve real life addition and subtraction problems |
| 6 | I know all of my times tables up to 12 x 12 and the division facts linked to them |
| 7 | I can multiply a two or three digit number by a one digit number |
| 8 | I can use diagrams to show my understanding of equivalent fractions |
| 9 | I know what hundredths are and count up and down in hundredths |
| 10 | I can round decimals to the nearest whole number |
| 11 | I can solve measurement and money problems that also involve my knowledge of decimals and fractions |
| 12 | I can compare and order numbers that have the same number of decimal places |
| 13 | I can convert between different units of measurement |
| 14 | I can compare different 2-D shapes using mathematical language |
| 15 | Using my knowledge of symmetry, I can complete a symmetric figure |
| 16 | I can plot specified points and then draw sides to complete a given polygon |
| 17 | When looking at bar charts, pictograms, tables and other graphs, I can answer questions requiring me to compare the data |
|  | **GDS** |
| 1 | Solve multi-step problems related to on-going learning in science, history and geography |
| 2 | Use previous learning to influence how I tackle a range of problems |
| 3 | I can check my answers to ensure they make sense within the context of the problem |
| 4 | Apply my knowledge of fractions to solve problems involving money, time, weight and length |
| 5 | I can predict possibilities using existing data |

Y5 Maths Learning Journey



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|  | **Objectives** |
|  | **EXS** |
| 1 | I can round extremely large numbers to the nearest 10, 100, 1,000, 10,000 and 100,000 |
| 2 | I can solve real life problems requiring me to add and subtract |
| 3 | I can use my knowledge of factors and multiples. I can find all pairs of factors as well as common factors of two numbers |
| 4 | I can solve real life problems that involve multiplication and division |
| 5 | I can identify square, cube and prime numbers |
| 6 | I can multiply a three digit number by a two digit number using long multiplication |
| 7 | I can divide up to a four digit number by a one digit number using short division. I can present remainders in the appropriate way |
| 8 | I can order and compare fractions where denominators |
| 9 | I can read and write decimals as fractions |
| 10 | I can order and compare numbers which have up to three decimal places |
| 11 | I can solve problems using my knowledge of percentage and decimal equivalents and sometimes, fraction equivalents |
| 12 | I can convert and compare between mixed numbers and improper fractions |
| 13 | I can convert between different units of measurement |
| 14 | I can measure and calculate the perimeter of different shapes whose edges all meet at right angles |
| 15 | I can calculate the area of rectangles and record using the correct units of measurement |
| 16 | I can find angles on a point, angles on a straight line and angles that are multiples of 90° |
| 17 | I can create, read and interpret data in different formats including timetables |
|  | **GDS** |
| 1 | I collect my own data on personal projects and present information in different formats |
| 2 | I am resilient when learning to solve problems and investigating |
| 3 | I can identify more complex patterns and express generalisations using symbolic notation |
| 4 | I am confident when working with negative numbers relating this to time BC AD |
| 5 | I consistently use rounding to estimate answers to all operations. |

Y6 Maths Learning Journey



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|  | **Objective** |
|  | **EXS** |
| 1 | I am able to use my place value knowledge with numbers of all sizes and can round to any specific requirement |
| 2 | I count backwards and forwards across zero and can solve real life problems involving negative numbers |
| 3 | I can solve problems using my addition, subtraction, multiplication and division skills |
| 4 | I can multiply numbers up to four digits by a two digit number using long multiplication |
| 5 | I can divide numbers up to four digits by a two digit number using short division. I can also present remainders appropriately |
| 6 | I can use my knowledge of BIDMAS to carry out calculations using all four operations |
| 7 | I can calculate using fractions |
| 8 | I can solve problems using percentages and fractions of amounts |
| 9 | I can solve problems which require me to round the answer to a specific degree of accuracy |
| 10 | I can identify equivalent fractions, decimals and percentages and can use this knowledge when solving problems |
| 11 | Using my knowledge of fractions and decimals, I can solve problems that involve remainders and ratio |
| 12 | I can use solve problems that involve the use of algebra |
| 13 | I can convert between smaller and larger units of measurement using all numbers including decimals up to three decimal places |
| 14 | I can calculate the area of triangles and parallelograms |
| 15 | I can compare and classify 2-D shapes. I can also find unknown angles in 2-D shapes without using a protractor. |
| 16 | I can draw 2-D shapes using given information (dimensions and angles) |
| 17 | I can identify angles on a point, on a straight line, when they are vertically opposite and also find missing angles |
| 18 | I can draw and translate simple shapes and reflect them in the axes |
| 19 | I can answer questions and solve problems involving pie charts and line graphs |
| 20 | I can calculate the mean average and solve problems involving the mean |
| **GDS** | |
| 1 | I can use my understanding from previous learning to solve problems and investigate, showing resilience. |
| 2 | I can solve complex problems independently by breaking them down into manageable tasks. |
| 3 | I can collect data for a project and present information in formats of my choice, such as charts, graphs and tables. |
| 4 | I can give justified reasons and proof for my results. |
| 5 | I can interpret and discuss data to draw conclusions. |