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| **Navigation Primary Maths Knowledge Map** |
| **EYFS maths in continuous provision** |
| **Indoor** | * Maths working walls which are added to as each number is taught. Each number is displayed in a variety of ways to aid understanding
* Number line added to as taught
* Maths areas including elements of all key processes
* Block play, sand, water, puzzles, construction, investigation and deconstructed role play
* Maths accessible in all areas of provision e.g.: tape measures
 |
| **Outdoor** | * Practical maths equipment available throughout
* Mud kitchen
* Timers, resources to create games
* Water with capacity equipment
* Construction e.g. tape measures, metre sticks, varying sizes and shapes of blocks etc
* Children regulating their spatial awareness
 |
| **See EYFS Full Skills Curriculum document links** ***NB: yellow relates to nursery*** | **EYFS Outdoor Skills Curriculum links**  |
| Page 1 – Role playPage 2 – Small worldPage 3 – SandPage 4 – DoughPage 5 – WaterPage 6 – Mark makingPage 7 – InvestigationPage 10 – Pencil controlPage 15 & 16 – CommunicationPage 17 – Block playPage 19 – MouldPage 20 – PrintPage 23 – ExtendPage 24 – Bury Page 25 - Enclose | Every skill has links to maths and spatial awareness |

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| **EYFS** |
| **Mathematical Vocabulary** |
| Nursery | Communication and Language | * I know a wider range of vocabulary, including tall, short, long, more, fewer.
* I understand ‘why’ questions, like: “why do you think the caterpillar is so fat?”
 |
| Reception | Communication and Language | * I can learn new vocabulary, including subitise, lighter, heavier, share, group, addition, number bond.
* I know how to use new vocabulary throughout the day.
 |
| ELG | Communication and Language | Speaking | * Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.
 |
| **Number and Place Value** |
| **Counting** |
| Nursery | Mathematics | * I can to recite numbers past 5.
* I know one number name for each item in order: 1, 2, 3, 4, 5.
* I know that the last number reached when counting a small set of objects tells you how many there are in total (‘cardinal principle’).
 |
| Reception | Mathematics | * I can count objects, actions and sounds.
* I can count beyond ten.
 |
| ELG | Mathematics | Numerical Patterns | * Verbally count beyond 20, recognising the pattern of the counting system.
 |
| **Identifying, Representing and Estimating Numbers** |
| Nursery | Mathematics | * I can quickly recognise up to 3 objects, without having to count them individually (‘subitising’).
* I can show ‘finger numbers’ up to 5.
* I can link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
* I can experiment with symbols and marks as well as numerals.
 |
| Reception | Mathematics | * I can subitise.
* I know that the number symbol (numeral) links with its cardinal number value.
 |
| ELG | Mathematics | Number | * Subitise (recognising quantities without counting) up to 5.
 |
| **Reading and Writing Numbers** |
| Nursery | Mathematics | * I know that numerals and amounts match: for example, showing the right number of objects to match the numeral, up to 5.
* I can experiment with symbols and marks as well as numerals.
 |
| Reception | Mathematics | * I can link the number symbol (numeral) with its cardinal number value.
 |
| **Compare and Order Numbers** |
| Nursery | Mathematics | * I know to use language such as ‘more than’, ‘fewer than’ to compare quantities
 |
| Reception | Mathematics | * I can compare numbers.
 |
| ELG | Mathematics | Numerial Patterns | * Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
 |
| **Understanding Place Value** |
| Reception | Mathematics | * I know the ‘one more than/one less than’ relationship between consecutive numbers.
* I can explore the composition of numbers to 10.
 |
| ELG | Mathematics | Number | * Have a deep understanding of numbers to 10, including the composition of each number.
 |
| **Solve Problems** |
| Nursery | Mathematics | * I can solve real world mathematical problems with numbers up to 5.
 |
| **Addition and Subtraction** |
| **Mental Calculations** |
| Reception | Mathematics | * I know the number bonds for numbers 0-5 and some to 10 through automatic recall.
 |
| ELG | Mathematics | Number | * Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
 |
| **Solve Problems** |
| ELG | Mathematics | Numerical Patterns | * Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly.
 |
| **Measurement** |
| **Describe, Measure, Compare and Solve (All Strands)** |
| Nursery | Mathematics | * I can make comparisons between objects relating to size, length, weight and capacity.
 |
| Reception | Mathematics | * I can compare length, weight and capacity.
 |
| **Telling the Time** |
| Nursery | Mathematics | * I know words, such as ‘first’, ‘then…’ to describe a sequence of events, real or fictional.
 |
| **Properties of Shapes** |
| **Recognise 2D and 3D Shapes and their Properties** |
| Nursery | Mathematics | * I know some 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) and I can talk about and explore using informal and mathematical language: ‘sides’, ‘corners’, ‘straight’, ‘flat’, ‘round’.
* I know how to select shapes appropriately: flat surfaces for a building, a triangular pattern for a roof, etc.
* I can combine shapes to make new ones – an arch, a bigger triangle, etc.
 |
| Reception | Mathematics | * I can select, rotate and manipulate shapes in order to develop spatial reasoning skills.
 |
| **Compare and Classify Shapes** |
| Reception | Mathematics | * I know how to compose and decompose shapes so that I can recognise a shape can have other shapes within it, just as numbers can.
 |
| **Position and Direction** |
| **Position, Direction and Movement** |
| Nursery | Mathematics | * I know words to help me to understand and describe the positions of objects – for example, “The bag is under/on/next to the table,” – with no pointing.
* I know how to describe a familiar route.
* I know words like ‘in front of’ and ‘behind’, to discuss routes and locations.
 |
| Reception | Understanding the World | * I can draw information from a simple map.
 |
| **Patterns** |
| Nursery | Mathematics | * I can identify and talk about the patterns around me. For example, stripes on clothes, designs on rugs and wallpaper. Use informal language like ‘pointy’, ‘spotty’, ‘blobs’, etc.
* I can extend and create ABAB patterns – stick, leaf, stick, leaf.
* I can notice and correct an error in a repeating pattern.
 |
| Reception | Mathematics | * I can continue, copy and create repeating patterns.
 |
| **Statistics** |
| **Record, Present and Interpret Data** |
| Nursery | Mathematics | * I can experiment with symbols and marks, as well as numerals.
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| **Place Value** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Count | Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count numbers to 100 in numeralsCount in multiples of twos, fives and tens | Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward | Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number | Count in multiples of 6, 7, 9, 25 and 1000 Count backwards through zero to include negative numbers | Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 Count forwards and backwards with positive and negative whole numbers, including through zero |  |
| Represent | Know how to represent numbers using objects and pictorial representationsRead and write numbers to 100 in numeralsRead and write numbers from 1 to 20 in numerals and words | Read and write numbers to at least 100 in numerals and in wordsKnow how to identify, represent and estimate numbers using different representations, including the number line | Know how to represent and estimate numbers using different representationsRead and write numbers up to 1000 in numerals and in words | Know how to represent and estimate numbers using different representationsKnow how to read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value | Read, write, (order and compare) numbers to at least 1,000,000 and determine the value of each digitKnow how to read Roman numerals to 1000 (M)  | Read, write, (order and compare) numbers up to 10,000,000 and determine the value of each digit |
| Use and compare | Given a number, identify one more and one less | Know the place value of each digit in a two-digit number (tens, ones)Compare and order numbers from 0 up to 100; use and = signs | Know the place value of each digit in a three-digit number (hundreds, tens, ones)Compare and order numbers up to 1000 | Find 1000 more or less than a given numberRecognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)Compare and order numbers beyond 1000 | Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit | Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit |
| Rounding/ problems |  | Know how to use place value and number facts to solve problems | Know how to solve number problems and practical problems involving these ideas | Round any number to the nearest 10, 100 or 1000Solve number and practical problems that involve all of the above and with increasingly large positive numbers. | Interpret negative numbers in contextRound any number up to 1,000,000 to the nearest 10, 100, 1000, 10 000 and 100 000 Solve number problems and practical problems that involve all of the above | Round any whole number to a required degree of accuracyKnow how to use negative numbers in context, and calculate intervals across zero Solve number and practical problems that involve all of the above |

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| **Addition and Subtraction** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Calculations | Know and recall addition and subtraction facts within 20Know a method to add and subtract one-digit and two-digit numbers to 20, including zero | Know and recall addition and subtraction facts to 20 fluently and use to derive related facts up to 100Know how to add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ➢ a two-digit number and ones ➢ a two-digit number and tens ➢ two two-digit numbers➢ adding three one-digit numbers | Know reliable mentalmethods to add and subtract numbers, including: ➢ a three-digit number and ones ➢ a three-digit number and tens ➢ a three-digit number and hundredsKnow the formal columnar written methods to add and subtract numbers with up to three digits. | Know how to use the formal written methods of columnar addition and subtraction to add and subtract numbers with up to 4 digits | Know how to use the formal written methods of columnar addition and subtraction to add and subtract numbers with more than 4 digitsAdd and subtract numbers mentally with increasingly large numbers | Know how and when to perform a variety of mental calculations, including with mixed operations and large numbersUse knowledge of the order of operations to carry out calculations involving the four operations |
| Problems | Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems | Solve problems with addition and subtraction: ➢ using concrete objects and pictorial representations➢ applying their increasing knowledge of mental and written methods | Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | Solve addition and subtraction twostep problems in contexts, deciding which operations and methods to use and why | Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and whySolve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign | Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why |

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| **Multiplication and Division** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Recall and use |  | Know, recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbersKnow and show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot | Know, recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | Know, recall and use multiplication and division facts for multiplication tables up to 12 × 12Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbersKnow and use factor pairs and commutativity in mental calculations | Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbersKnow and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbersEstablish whether a number up to 100 is prime and recall prime numbers up to 19 Know, recognise and use square numbers and cube numbers, and the notation for squared (2 ) and cubed (3 ) | Know common factors, common multiples and prime numbersUse estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy |
| Calculations |  | Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs | 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 | Know how to use a formal written layout to multiply two-digit and three-digit numbers by a one-digit number | Know how to use a formal written method, including long multiplication, to multiply numbers up to 4 digits by a one- or two-digit number for two-digit numbersMultiply and divide numbers mentally drawing upon known factsKnow how to use the formal written method of short division to divide numbers up to 4 digits by a one-digit number and interpret remainders appropriately for the contextMultiply and divide whole numbers and those involving decimals by 10, 100 and 1000 | Know how to use the formal written method of long multiplication to multiply multi-digit numbers up to 4 digits by a two-digit whole numberKnow how to use the formal written method of long division to divide numbers up to 4 digits by a two-digit whole number, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Know how to use the formal written method of short division to divide numbers up to 4 digits by a two-digit number using where appropriate, interpreting remainders according to the contextPerform mental calculations, including with mixed operations and large numbers |
| Problems | 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 | Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. | Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems. | Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one-digit and integer scaling problems. | Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubesSolve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates | Solve problems involving addition, subtraction, multiplication and division. |
| Combined |  |  |  |  | Solve problems involving all four operations, including combinations of these. | Use their knowledge of the order of operations to carry out calculations involving the four operations. |

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| **Fractions** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Recognise and write | Recognise, find and name a half as one of two equal parts of an object, shape or quantityRecognise, find and name a quarter as one of four equal parts of an object, shape or quantity | Recognise, find, name and write fractions $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity | Count up and down in tenths; Know that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominatorsRecognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators | Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredthsRecognise mixed numbers and improper fractions and convert from one form to the other |  |
| Compare |  | Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ | Recognise and show, using diagrams, equivalent fractions with small denominatorsKnow how to compare and order unit fractions, and fractions with the same denominators | Recognise and show, using diagrams, families of common equivalent fractions | Compare and order fractions whose denominators are all multiples of the same number | Know how to use common factors to simplify fractions and use common multiples to express fractions in the same denominationCompare and order fractions, including fractions > 1 |
| Calculations |  | Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 | Know how to add and subtract fractions with the same denominator within one whole | Know how to add and subtract fractions with the same denominator | Know how to add and subtract fractions with the same denominator and denominators that are multiples of the same numberKnow how to multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Know how to add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractionsMultiply simple pairs of proper fractions, writing the answer in its simplest formdivide proper fractions by whole numbers  |
| Solve problems |  |  | Solve problems that involve all of the above | 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 |  |  |
| Decimals – Read, write, compare |  |  |  | Recognise and write decimal equivalents of any number of tenths or hundredthsRecognise and write decimal equivalents to, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, Round decimals with one decimal place to the nearest whole numberCompare numbers with the same number of decimal places up to two decimal places | Read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$,] Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalentsRound decimals with two decimal places to the nearest whole number and to one decimal placeRead, write, order and compare numbers with up to three decimal places | Know the value of each digit in numbers given to three decimal places |
| Fractions, Decimals and Percentages |  |  |  | Solve simple measure and money problems involving fractions and decimals to two decimal places | Write percentages as a fraction with denominator 100, and as a decimalSolve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$, $\frac{1}{5}$ , $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25 | Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$ ]Know and use equivalences between simple fractions, decimals and percentages, including in different contexts |

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| **Ratio, Proportion and Algebra** |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| *Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.* | *Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.* | *Solve problems, including missing number problems.* |  |  | Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.Solve problems involving the calculation/use of percentages for comparison Solve problems involving similar shapes where the scale factor is known or can be found.Solve problems involving unequal sharing and grouping using knowledge of fractions and multiplesuse simple formulae.Generate and describe linear number sequences Express missing number problems algebraically.Find pairs of numbers that satisfy an equation with two unknowns.Enumerate possibilities of combinations of two variables. |

***Note –*** *although formal algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the ‘missing number’ objectives from Y1/2/3*

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| **Measurement** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Using measures | Compare, describe and solve practical problems for: ➢ lengths and heights➢ mass/weight➢ capacity and volume➢ timeMeasure and begin to record the following: ➢ lengths and heights ➢ mass/weight ➢ capacity and volume ➢ time (hours, minutes, seconds) | Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (℃); capacity (litres/ml) to the nearest appropriate unitCompare and order lengths, mass, volume/capacity and record the results using >, < and = | Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) | Convert between different units of measure [for example, kilometre to metre; hour to minute]Estimate, compare and calculate different measures | Convert between different units of metric measureKnow and use approximate equivalences between metric units and common imperial units such as inches, pounds and pintsUse all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling | Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 d.p. where appropriate Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 d.pConvert between miles and kilometres |
| Money | Recognise and know the value of different denominations of coins and notes | Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular valueFind different combinations of coins that equal the same amounts of moneySolve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | Add and subtract amounts of money to give change, using both £ and p in practical contexts | Estimate, compare and calculate different measures, including money in pounds and pence | Use all four operations to solve problems involving measure [for example, money] |  |
| Time | Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]Know and use language relating to dates, including days of the week, weeks, months and yearsTell the time to the hour and half past the hour and draw the hands on a clock face to show these times | Compare and sequence intervals of timeTell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these timesKnow the number of minutes in an hour and the number of hours in a day | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12- hour and 24-hour clocksEstimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnightKnow the number of seconds in a minute and the number of days in each month, year and leap yearCompare durations of events  | Read, write and convert time between analogue and digital 12- and 24-hour clocksSolve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days | Solve problems involving converting between units of time | Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa |
| Perimeter, area and volume |  |  | Measure the perimeter of simple 2-D shapes | Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metresFind the area of rectilinear shapes by counting squares | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metresCalculate and compare the area of rectangles (including squares) and including using standard units, square centimetres and square metres and estimate the area of irregular shapesEstimate volume  | Know that shapes with the same areas can have different perimeters and vice versaRecognise when it is possible to use formulae for area and volume of shapesCalculate the area of parallelograms and trianglesCalculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres and extending to other units |

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| **Geometry** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| 2-D shapes | Know and recognise common 2- D shapes [for example, rectangles (including squares), circles and triangles] | Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical lineIdentify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]Compare and sort common 2-D shapes and everyday objects | Draw 2-D shapes | Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizesIdentify lines of symmetry in 2-D shapes presented in different orientations | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.Use the properties of rectangles to deduce related facts and find missing lengths and angles | Draw 2-D shapes using given dimensions and angles • compare and classify geometric shapes based on their properties and sizesIllustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |
| 3-D Shapes | Know and recognise common 3- D shapes [for example, cuboids (including cubes), pyramids and spheres] | Compare and sort common 3-D shapes and everyday objects | Make 3-D shapes using modelling materialsRecognise 3-D shapes in different orientations and describe them |  | Identify 3-D shapes, including cubes and other cuboids, from 2-D representations | Recognise, describe and build simple 3-D shapes, including making nets |
| Angles and lines |  |  | Recognise angles as a property of shape or a description of a turnIdentify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turnIdentify whether angles are greater than or less than a right angleIdentify horizontal and vertical lines and pairs of perpendicular and parallel lines | Identify acute and obtuse angles and compare and order angles up to two right angles by sizeIdentify lines of symmetry in 2-D shapes presented in different orientationsComplete a simple symmetric figure with respect to a specific line of symmetry | Know angles are measured in degreesEstimate and compare acute, obtuse and reflex anglesDraw given angles, and measure them in degreesIdentify: ➢ angles at a point and one whole turn (total 360°) ➢ angles at a point on a straight line and half a turn (total 180°) ➢ other multiples of 90° | Find unknown angles in any triangles, quadrilaterals, and regular polygonsRecognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles |
| Position and direction | Describe position, direction and movement, including whole, half, quarter and three-quarter turns | Order and arrange combinations of mathematical objects in patterns and sequencesKnow and use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise) |  | Describe positions on a 2-D grid as coordinates in the first quadrantDescribe movements between positions as translations of a given unit to the left/right and up/downPlot specified points and draw sides to complete a given polygon | Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed | Describe positions on the full coordinate grid (all four quadrants)Draw and translate simple shapes on the coordinate plane, and reflect them in the axes |

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| **Statistics** |
|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Present and interpret data |  | Interpret and construct simple pictograms, tally charts, block diagrams and simple tables | Interpret and present data using bar charts, pictograms and tables | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | Complete, read and interpret information in tables, including timetables | Interpret and construct pie charts and line graphs and use these to solve problems |
| Solve statistical problems |  | Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantityAsk and answer questions about totalling and comparing categorical data | Solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables | Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | Solve comparison, sum and difference problems using information presented in a line graph | Calculate and interpret the mean as an average |