## Progression of skills: Subject Maths

## Programme of study: Number and Place Value

| Year 1 |
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| $\bullet$ |
| Count to and across 100, forwards and backwards <br> beginning with 0 or 1, on or from any given <br> number. |
| • Count in different multiples including $2 s, 5 s$ and |
| 10 s. |

- Given a number, identify 1 more and 1 less
- Identify and represent numbers using concrete objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- Read and write numbers to 100 in numerals.
- Read and write numbers from 1 to 20 in digits and words.

Number Zero, one, two, three to twenty, and beyond None Count (on/up/to/from/ down) Before, after More, less, many, few, fewer, least, fewest, smallest, greater, lesser Equal to, the same as Odd, even, Pair Units, ones, tens Ten more/less Digit Numeral Figure(s) Compare (In) order/a different order Size Value Between, halfway between Above, below

## Vocabulary

Numbers to one hundred Hundreds Partition, recombine Hundred more/less

## Awareness of EYFS links

## Development Matters Area

Number

## Development Matters Statement

- Count objects, actions and sounds
- Subitise
- Link the number symbol (numeral) with its cardinal number value
- Count beyond 10
- 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 0-10


## Early Learning Goals

- Have deep understanding of number to $\mathbf{1 0}$, including the composition of each number.
- Subitise (recognise quantities without counting) up to 5.
- Automatically recall (without reference to rhymes, counting or other aids) number bonds to 5 (including subtraction facts) and some number bonds to 10 including double facts.


## Early Learning Goals

- Verbally count to beyond 20, recognising the pattern of the counting system.
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
- Explore and represent patterns within numbers up to 10 , including evens and odds, double facts and how quantities can be distributed equally.

| Programme of study: Addition and subtraction. |  |  |
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| Year 1 | Year 2 | Progression for Greater Depth and Mastery |
| - Read, write \& interpret mathematical statements involving +, - and = signs. <br> - Represent and use number bonds \& related subtraction facts within 20. <br> - Solve one-step problems that involve addition \& subtraction, using concrete objects \& pictorial representations, and missing number problems. <br> - Add and subtract 1-digit \& 2-digit numbers to 20, including zero. | - Recall and use addition \& subtraction facts to 20 fluently and derive and use related facts up to 100 . <br> - Solve problems with addition and subtraction: <br> Using concrete objects \& pictorial representations, including those involving numbers, quantities and measures. <br> > Applying their increasing knowledge of mental and written methods. <br> - Add and subtract numbers using concrete objects, pictorial representations \& mentally, including: <br> > 2-digit numbers \& ones <br> $>$ 2-digit numbers \& tens <br> $>$ Two 2-digit numbers <br> $>$ Adding 31-digit numbers | - Add and subtract numbers mentally, including: <br> > 3-digit numbers \& ones <br> $>3$-digit numbers \& tens <br> $>3$-digit numbers \& hundreds |


|  | - Show that addition of 2 numbers can be done in any order (commutative) and subtraction of one number from another cannot. <br> - Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. | - Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction. <br> - Estimate the answer to a question and use the inverse operations to check answers. <br> - Solve problems including missing number problems, number facts, place value, and more complex addition and subtraction. |
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| Vocabulary <br> Number bonds, number line Add, more, plus, make, sum, total, altogether Inverse Double, near double Half, halve Equals, is the same as (including equals sign) Difference between How many more to make..?, how many more is...than..?, how much more is..? Subtract, take away, minus How many fewer is...than..?, how much less is..? | Vocabulary | Vocabulary |
| Awareness of EYFS links |  |  |
| Development Matters Area |  | Development Matters Statement |


| Programme of study: Multiplication and Division. |  |  |
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| Year 1 | Year 2 | Progression for Greater Depth and Mastery |
| - Solve one step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays, with support. | - Recall and use multiplication and division facts for the $2 x, 5 x, 10 x$ tables, including recognising odd and even numbers <br> - Calculate the mathematical statements for multiplication and division within the multiplication tables and write them using $x$, $\div$ and $=$ signs. <br> - Show that multiplication of 2 numbers can be done in any order (commutative) and division of one number another cannot. <br> - Solve problems using multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts; including problems in context. | - Recall and use the multiplication and division facts for the $3 x, 4 x$ and $8 x$ tables. <br> - Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including 2-digit x 1 -digit, using mental and progressing to formal written methods. <br> - Solve problems including missing number problems, including multiplication and division, including integer scaling problems and correspondence problems in which ' n ' objects are connected to ' m ' objects. |


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| Vocabulary <br> Odd, even Count in twos, threes, fives Count in tens <br> (forwards from/backwards from) How many times? Lots <br> of, groups of Once, twice, three times, five times Multiple <br> of, times, multiply, multiply by Repeated addition Array, <br> row, column Double, halve Share, share equally Group in <br> pairs, threes, etc. Equal groups of Divide, divided by, left, <br> left over | Vocabulary | Vocabulary |
|  | Awareness of EYFS links |  |
| Development Matters Area |  |  |


| Programme of study: Fractions. |  |  |
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| Year 1 | Year 2 | Progression for Greater Depth and Mastery |
| - Recognise, find and name a half as one of two equal parts of an object, shape or quantity. <br> - Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. | - Recognise, find, name and write fractions $1 / 3$, $1 / 4,2 / 4$ and $3 / 4$ or a length, shape, set of objects or quantity. <br> - Write simple fractions e.g. $1 / 2$ or $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$. | - Count up and down in tenths: recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10. <br> - Compare and order unit fractions and fractions with the same denominator. <br> - Recognise, find and write fractions or a discrete set of objects: unit fractions and non-unit fractions with small denominators. <br> - Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. <br> - Recognise and show, using diagrams, equivalent fractions with small denominators. <br> - Add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7). <br> - Solve problems that involve all of the above. |
| Vocabulary <br> Whole Equal parts, four equal parts One half, two halves A quarter, two quarters | Vocabulary <br> Three quarters, one third, a third Equivalence, equivalent | Vocabulary |
| Awareness of EYFS links |  |  |


| Programme of study: Measurement |  |  |
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| Year 1 | Year 2 | Progression for Greater Depth and Mastery |
| - Compare, describe and solve practical problems for: | - Choose and use appropriate standard units to estimate and measure: | - Measure, compare, add and subtract: - Lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ) |

- Lengths and heights
- Mass or weight
- Capacity/volume
- Time
- Measure and begin to record the following: Lengths and heights
- Mass/weight
- Capacity and volume
- Time (hrs, mins, secs)
- Recognise and know the value of different denominations or coins and notes.
- Sequence events in chronological order using language such as: next, first, today, yesterday, tomorrow, morning, afternoon, evening.
- Recognise and use language relating to dates, including days of the week, weeks, months, years.
- Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- Length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ )
- Mass (kg/g)
- Temperature (o C)
- Capacity (I/ml)
- To the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.
- Compare and order lengths, mass,
volume/capacity and record the results using $>$, < and $=$.
- Compare and sequence intervals of time.
- Tell and write the time to five minutes, including quarter past/to the hour and draw hands on a clock face to show these times.
- Mass (kg/g)
- Volume/capacity (I/ml)
- Measure the perimeter of simple 2D shapes
- Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12hour and 24-hour clocks.
- Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of secs, mins, hrs and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight.
- Know the numbers of seconds in a minute and the number of days in each month, year and leap year.
- Compare durations of events, for example to calculate time taken by particular events or tasks

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| Vocabulary <br> Full, half full, empty Holds Container Weigh, weighs, <br> balances Heavy, heavier, heaviest, light, lighter, lightest <br> Scales Time Days of the week: Monday, Tuesday, etc. <br> Seasons: spring, summer, autumn, winter Day, week, <br> month, year, weekend Birthday, holiday Morning, <br> afternoon, evening, night, midnight Bedtime, dinnertime, <br> playtime Today, yesterday, tomorrow Before, after Next, <br> last Now, soon, early, late Quick, quicker, quickest, quickly <br> fast, faster, fastest, slow, slower, slowest, slowly Old, <br> older, oldest, new, newer, newest Takes longer, takes less <br> time Hour, oclock, half past Clock, watch, hands How long <br> ago?, how long will it be to...?, how long will it take to...?, <br> (degrees) |  |  |
| how often? Always, never, often, sometimes, usually <br> Once, twice First, second, third, etc. Estimate, close to, <br> about the same as, just over, just under Too many, too <br> few, not enough, enough Length, width, height, depth <br> Long, longer, longest, short, shorter shortest, tall, taller, <br> tallest, high, higher, highest Low, wide, narrow, deep, <br> shallow, thick, thin Far, near, close Metre, ruler, metre <br> stick Money, coin, penny, pence, pound, price, cost, buy, <br> sell, spend, spent, pay, change, dear(er), costs more, costs <br> less, cheaper, costs the same as How much?, how many? <br> Total |  |  |


| Programme of study: Geometry. |  |  |
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| Year 1 | Year 2 | Progression for Greater Depth and Mastery |

- Recognise and name common 2D and 3D shapes, including: - 2D e.g. rectangles, squares, circles, triangles - 3D e.g. cuboids, cubes, pyramids, spheres
- Describe position, directions and movements, including half, quarter and three-quarter turns.


## Vocabulary

Group, sort Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square Shape Flat, curved, straight, round Hollow, solid Corner (point, pointed) Face, side, edge Make, build, draw Position Over, under, underneath, above, below, top, bottom, side on, in, outside, inside around, in front, behind Front, back Before, after Beside,

- Identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line.
- Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.
- Identify 2D shapes on the surface of 3D shapes.
- Compare and sort common 2D and 3D shapes and everyday objects.
- Order and arrange combinations of mathematical objects in patterns
- Use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise), and movement in a straight line.


## Vocabulary

Size Bigger, larger, smaller Symmetrical, line of symmetry Fold Match Mirror line, reflection Pattern, repeating pattern Rotation Clockwise, anticlockwise Straight line Ninety degree turn, right angle

- Draw 2D shapes and make 3D shapes using modelling materials, recognise 3D shapes in different orientations and describe them.
- Recognise angles are a property of shape or a description of a turn. Identify right angles, recognise that two right angles make a half-turn, three make three quarters and four a complete turn; identify whether angles are greater than or less than a right angle.
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

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next to, Opposite Apart Between, middle, edge, centre
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Corner Direction Journey Left, right, up, down, forwards,
backwards, sideways Across Close, far, near Along,
through To, from, towards, away from Movement Slide,
roll, turn, whole turn, half turn Stretch, bend

## Awareness of EYFS links

| Development Matters Area | Development Matters Statement |
| :---: | :---: |
| Mathematics | - Select, rotate and manipulate shapes in order to develop spatial reasoning skills. <br> - Compose and decompose shapes so that children recognise a shape can have other shapes within it, as number can. <br> - Continue, copy and create repeating patterns |


| Programme of study: Statistics. |  |  |
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| Year 1 | Year 2 | Progression for Greater Depth and Mastery |
|  | - Interpret and construct simple: - Pictograms Tally charts - Block diagrams - Tables <br> - Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. <br> - Ask and answer questions about totalling and compare categorical data | - Interpret and present data using: - Bar charts Pictograms - Tables <br> - Solve one -step and two -step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts, pictograms and tables. |

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