

Year 1 Maths plan. The following plan outlines the mathematics that will be taught during each term.

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources (e.g. concrete objects and measuring tools).

At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

	Objectives	Notes and guidance
Autumn 1	<p><u>Number and Place Value</u></p> <ul style="list-style-type: none"> -count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number - count, read and write numbers to 100 in numerals, - given a number, identify one more and one 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 from 1 to 20 in digits and words. <p><u>Addition</u></p> <p>read, write and interpret mathematical statements involving addition (+) and equals (=) signs represent and use number bonds and to within 20</p> <ul style="list-style-type: none"> - add one-digit and two-digit numbers to 20 (9 + 9,), including zero -solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems. 	<p><u>Number</u></p> <p>Pupils should practise counting (1, 2, 3), ordering (e.g. first, second, third), or to indicate a quantity (e.g. 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.</p> <p>They should practise counting as reciting numbers and counting as enumerating objects, and counting in ones, twos, fives and tens from different multiples to develop their recognition of patterns in the number system (e.g. odd and even numbers). They connect these patterns with objects and with shapes, including through varied and frequent practice of increasingly complex questions.</p> <p>Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by concrete objects and pictorial representations.</p> <p><u>Addition</u></p> <p>Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$;) They should realise the effect of adding or zero.</p> <p>Pupils should combine and increase numbers, counting forwards and backwards.</p> <p>They should discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms put together, add, altogether, total, take away, distance between, more than and less than so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly</p>

Subtraction

- read, write and interpret mathematical statements involving subtraction (-) and equals (=) signs
- represent and use number bonds and to within 20 and related subtraction.
- subtract one-digit and two-digit numbers to 20 (18-9), including zero
- solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.

Geometry: properties of shapes

- recognise and name common 2-D shapes, including:
- 2-D shapes (e.g. rectangles (including squares), circles and triangles)

Geometry: position, direction, motion

- order and arrange combinations of objects and shapes in patterns
- describe position, directions and movements, including half, quarter

Time

- compare, describe and solve practical problems time (quicker, slower, earlier, later)
- Measure and begin to record time (hours, minutes, seconds)
- sequence events in chronological order using language such as: before and after, next, - first, today, yesterday, tomorrow, morning, afternoon and evening
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

Geometry: properties of shapes

Pupils should handle common 2-D shapes, naming these and related everyday objects fluently. They should recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids can be different shapes.

Geometry: position, direction, motion

Pupils should create, copy, describe and reorganise patterns. They should use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.

Time

Pupils should use the language of time, including telling the time throughout the day, first using o'clock and then half past.

Autumn 2	Objectives	Guidance notes
	<p><u>Number and place value</u> -count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number -count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens -given a number, identify one more and one 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 from 1 to 20 in digits and words.</p> <p><u>Measures Length & Weight</u> Pupils should be taught to: compare, describe and solve practical problems for lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) measure and begin to record the length and height Pupils should be taught to: compare, describe and solve practical problems for measure and begin to record the mass or weight (e.g. heavy/light, heavier than, lighter than) mass/weight</p> <p><u>Addition FOCUS ON PROBLEM SOLVING</u> -More able groups complete a mixture of addition and subtraction. read, write and interpret mathematical statements involving addition (+) and equals (=) signs represent and use number bonds and to within 20 - add one-digit and two-digit numbers to 20 (9 + 9,), including zero -solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</p> <p><u>Subtraction FOCUS ON PROBLEM SOLVING</u> -read, write and interpret mathematical statements involving subtraction (-) and equals (=) signs -represent and use number bonds and to within 20 and related subtraction. - subtract one-digit and two-digit numbers to 20 (18-9), including zero -solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</p>	<p><u>Number and place value</u> Pupils should practise counting (1, 2, 3), ordering (e.g. first, second, third), or to indicate a quantity (e.g. 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.</p> <p>They should practise counting as reciting numbers and counting as enumerating objects, and counting in ones, twos, fives and tens from different multiples to develop their recognition of patterns in the number system (e.g. odd and even numbers). They connect these patterns with objects and with shapes, including through varied and frequent practice of increasingly complex questions.</p> <p><u>Measures</u> The terms mass and weight, volume and capacity are used interchangeably at this stage</p> <p>Pupils should move from using and comparing different types of quantities and measures using non-standard units, including discrete (e.g. counting) and continuous (e.g. liquid) measures, to using manageable common standard units. They should understand the difference between non-standard and standard units. In order to become familiar with standard measures, pupils begin to use measuring tools such as a ruler, weighing scales and containers</p> <p><u>Addition and Subtraction</u> Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero.</p> <p>Pupils should combine and increase numbers, counting forwards and backwards.</p> <p>They should discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms put together, add, altogether, total, take away, distance between, more than and less than so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.</p>

	<p>Money (Also cover + - See objectives above) recognise and know the value of different denominations of coins and notes</p>	<p>Link money to Enterprise week. Following addition and subtraction so children can use this knowledge to work with money.</p>
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Year 1 Medium Term Maths Plan
SPRING

Spring 1	Objectives	Guidance notes
	<p>Number and place value (Include work with money to count in 2s 5s 10s) -count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number -count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens -given a number, identify one more and one 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 from 1 to 20 in digits and words.</p> <p>CAPACITY - compare, describe and solve practical problems for capacity/volume (full/empty, more than, less than, quarter) - compare, describe and solve practical problems for capacity and volume</p>	<p>Number and place value Pupils should practise counting (1, 2, 3), ordering (e.g. first, second, third), or to indicate a quantity (e.g. 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent. They should practise counting as reciting numbers and counting as enumerating objects, and counting in ones, twos, fives and tens from different multiples to develop their recognition of patterns in the number system (e.g. odd and even numbers). They connect these patterns with objects and with shapes, including through varied and frequent practice of increasingly complex questions. Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by concrete objects and pictorial representations.</p> <p>CAPACITY The terms mass and weight, volume and capacity are used interchangeably at this stage Pupils should move from using and comparing different types of quantities and measures using non-standard units, including discrete (e.g. counting) and continuous (e.g. liquid) measures, to using manageable common standard units. They should understand the difference between non-standard and standard units. In order to become familiar with standard measures, pupils begin to use measuring tools such containers.</p>

	<p><u>Addition and subtraction (Do together and link with money and problem solving)</u> read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs - represent and use number bonds and related subtraction facts within 20 - add and subtract one-digit and two-digit numbers to 20 (9 + 9, 18 - 9), including zero - solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</p> <p><u>Multiplication and division (link with money here 2s, 5s, 10s)</u> Pupils should be taught to: - solve simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p><u>Fractions</u> (link to division from last week & make links to shapes, finding half of a square etc.. Very practical, half pizza, half an amount of sweets) Pupils should be taught to: - recognise, find and name a half as one of two equal parts of an object, shape or quantity - recognise, find and name a quarter as one of four equal</p>	<p><u>Addition and subtraction</u> Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero. Pupils should combine and increase numbers, counting forwards and backwards.</p> <p>They should discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms put together, add, altogether, total, take away, distance between, more than and less than so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.</p> <p><u>Multiplication and division</u> Through grouping and sharing small quantities, pupils should begin to understand multiplication and division; doubling numbers and quantities, and finding simple fractions of objects, numbers and quantities. They should make connections between arrays, number patterns, and counting in twos, fives and tens.</p> <p><u>Fractions</u> Pupils should be taught $\frac{1}{2}$ and $\frac{1}{4}$ as operators on discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could recognise and find half a length, quantity, set of objects or shape. Pupils connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.</p>
Spring 2	<p><u>Geometry: properties of shapes (make links back to fractions from last term)</u> Pupils should be taught to: - recognise and name common 2-D and 3-D shapes, including: - 2-D shapes (e.g. rectangles (including squares), circles and triangles) - 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres).</p> <p><u>Geometry: position, direction, motion (Teach same week as 3D shapes)</u> Pupils should be taught to: - order and arrange combinations of objects and shapes in patterns - describe position, directions and movements, including half, quarter and three-quarter turns.</p>	<p><u>Geometry: properties of shapes</u> Pupils should handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They should recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids can be different shapes.</p> <p><u>Geometry: position, direction, motion (Same week as shape)</u> Pupils should create, copy, describe and reorganise patterns. They should use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside. Pupils should make turns to show they understand half, quarter and three-quarter turns and routinely make these turns in a clockwise</p>

Number and place value (Greater focus on problem solving)

Pupils should be taught to:

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens
- given a number, identify one more and one 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 from 1 to 20 in digits and words.

Measures Length Link to half, quarter, counting and problem solving

Pupils should be taught to:

- compare, describe and solve practical problems for lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half)
- measure and begin to record the length and height

Pupils should be taught to:

Time

- compare, describe and solve practical problems for:
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening
- Time, quicker, slower, faster, earlier, later.

direction.

Number and place value

Pupils should practise counting (1, 2, 3), ordering (e.g. first, second, third), or to indicate a quantity (e.g. 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.

They should practise counting as reciting numbers and counting as enumerating objects, and counting in ones, twos, fives and tens from different multiples to develop their recognition of patterns in the number system (e.g. odd and even numbers). They connect these patterns with objects and with shapes, including through varied and frequent practice of increasingly complex questions.

Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by concrete objects and pictorial representations.

Measures Length

Pupils should move from using and comparing different types of quantities and measures using non-standard units, including discrete (e.g. counting) and continuous (e.g. liquid) measures, to using manageable common standard units. They should understand the difference between non-standard and standard units.

In order to become familiar with standard measures, pupils begin to use measuring tools such as a ruler, weighing scales and containers

Time

time (hours, minutes, seconds)

time (quicker, slower, earlier, later)

Pupils should use the language of time, including telling the time throughout the day, first using o'clock and then half past.

Addition and Subtraction (relating to money)

They should discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms put together, add, altogether, total, take away, distance between, more than and less than so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.

Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should

Addition and Subtraction (relating to money)

- count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens (count 2p, 5p, 10p coins)
- 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 (using coins, how many ways to make 10p? 5p?20p?)
- read, write and interpret mathematical statements involving addition (+), Subtraction (-) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20 (find the coins that make 10p quickly)
- add and subtract one-digit and two-digit numbers to 20 ($9 + 9$, $18 - 9$), including zero
- For more able - Multiplication - solve simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

- solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems. (Related to money)

realise the effect of adding or subtracting zero.

Summer Term

Summer 1	Objectives	Guidance notes
	<p><u>Multiplication and division</u></p> <p>- solve simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p><u>Fractions & Shape</u></p> <p>- recognise, find and name a half as one of two equal parts of an object, shape or quantity</p> <p>- recognise, find and name a quarter as one of four equal parts of an object or quantity. Link to shape also.</p> <p><u>Geometry: properties of shapes</u></p> <p>recognise and name common 2-D and 3-D shapes, including:</p> <ul style="list-style-type: none"> - 2-D shapes (e.g. rectangles (including squares), circles and triangles) - 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres). <p><u>Geometry: position, direction, motion (could be in mental oral starters)</u></p> <p>Use bee bots, roamers here.</p> <ul style="list-style-type: none"> -order and arrange combinations of objects and shapes in patterns - describe position, directions and movements, including half, quarter and three-quarter turns. <p><u>Capacity & weight</u></p> <ul style="list-style-type: none"> - Compare, describe and solve practical problems for capacity/volume (full empty more than, less than, quarter) (Make links back to fraction work here half full, quarter empty, half more) -- Compare, describe and solve practical problems for mass/weight (heavier, lighter) (Make links to topic work, measure vegetables or food and order from lightest to heaviest) 	<p><u>Multiplication and division</u></p> <p>Through grouping and sharing small quantities, pupils should begin to understand multiplication and division; doubling numbers and quantities, and finding simple fractions of objects, numbers and quantities. They should make connections between arrays, number patterns, and counting in twos, fives and tens.</p> <p><u>Fractions & Shape</u></p> <p>Pupils should be taught $\frac{1}{2}$ and $\frac{1}{4}$ as operators on discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could recognise and find half a length, quantity, set of objects or shape. Pupils connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.</p> <p><u>Shape</u></p> <p>Pupils should handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They should recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids can be different shapes.</p> <p><u>Geometry: position, direction, motion</u></p> <p>Pupils should create, copy, describe and reorganise patterns. They should use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.</p> <p>Pupils should make turns to show they understand half, quarter and three-quarter turns and routinely make these turns in a clockwise direction.</p> <p><u>Capacity and weight</u></p> <p>Pupils should move from using and comparing different types of quantities and measures using non-standard units, including discrete (e.g. counting) and continuous (e.g. liquid) measures, to using manageable common standard units. They should understand the difference between non-standard and standard units.</p>

Addition and subtraction (Can be linked to money again here to fit in with topic work) This should be problem solving based with children choosing to use either + or -
- read, write and interpret mathematical statements involving addition (+), Subtraction (-) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20 ($9 + 9$, $18 - 9$), including zero
-For more able - Multiplication - solve simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher
- solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.

Place Value

count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number (From Year 2)
-count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens (From Year 2)
-given a number, identify one more and one 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 from 1 to 20 in digits and words.

Multiplication and division OR Addition and Subtraction

- solve simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Addition FOCUS ON PROBLEM SOLVING

Complete a mixture of + - (more able can look at \times and \div also)
-read, write and interpret mathematical statements involving addition (+) and equals (=) signs
-represent and use number bonds and to within 20
- add one-digit and two-digit numbers to 20 ($9 + 9$), including zero
-solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.

Addition and Subtraction

Let more able use multiplication and division here. Make sure the children are having to think for themselves about which number operation to use.
Drip feed half of an amount/ quarter of an amount - half and half again.

Place Value

Ordering numbers to 100. Order first, second, third etc
Identify how many tens/units in a number. Compare numbers 30 has 3 tens, 20 has 2 tens. 31 has 1 unit 30 has 0 units.
Use tens and units to help order numbers according to size.
Develop knowledge of odd and even numbers
Count in multiples of 2, 5, 10.

Subtraction

- read, write and interpret mathematical statements involving subtraction (-) and equals (=) signs
- represent and use number bonds and to within 20 and related subtraction.
- subtract one-digit and two-digit numbers to 20 (18-9), including zero
- solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.

Dependent upon what your children need choose weight, capacity or length:

Measures

- compare, describe and solve practical problems for:
 - lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half
 - mass or weight (e.g. heavy/light, heavier than, lighter than)
 - capacity/volume (full/empty, more than, less than, quarter)
- measure and begin to record the following:
 - lengths and heights
 - mass/weight
 - capacity and volume

Time

- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- time (quicker, slower, earlier, later)

Use the rest of this term to address any gaps or misconceptions your children may have.