

- Suggested oral mental starters (ongoing, throughout the term):**
- Count forwards (from 0) and backwards in twos, fives and tens to the 12th multiple; count forwards from 0 in threes to the 12th multiple
 - Recall multiplication and division facts for the 2, 5 and 10 times tables (**See Multiplication Tables Guidance, 2020**)
 - Recognise odd/even numbers, to at least 20, and relate to multiples/groups of two
 - Say the number that is 10 more/less than any number within 100 (refer to the hundred square)
 - Count on and back in 10s from any one or two digit number (refer to the hundred square)
 - Position numbers on a number line
 - Recall and use all pairs of numbers with a total of 20 and all pairs of numbers within 20; give addition and subtraction facts for the pairs of numbers
 - Derive pairs of multiples of ten that total 100; give addition and subtraction facts (e.g. $40 + 60 = 100$; $100 - 40 = 60$)
 - Add three one-digit numbers, using knowledge of number pairs e.g. $7 + 3 + 5 = 10 + 5 = 15$
 - Make estimates of quantities within 50 (and beyond) by grouping objects into 2s, 5s or 10s
 - Recall doubles to double 12 and recall the corresponding halves
 - Read the time to the hour, the half hour and the quarter hour (past and to) using an analogue clock (use daily routines to reinforce)

Areas of Study	No of days	Statutory requirements and non-statutory guidance	Suggested Key Vocabulary
<p>Number</p> <p>Number</p> <p>Week 1</p>	<p>3 - 5</p>	<p>Read and write numbers to 100 in numerals and words Given a number, identify the number that is 10 more or 10 less within 100 Count on and back in tens from any one- or two-digit number (refer to hundred square and use a counting stick to support) Say the number that comes between two numbers within 100 Order numbers from 0 up to 100 and position them on a number line and/or a 100 square Compare numbers from 0 up to 100; introduce the <, > and = signs and use them when comparing two numbers e.g. $42 > 24$ Reason about numbers e.g. If you wrote these numbers in order, starting with the smallest, which one would come third: 62, 18, 6, 26, 80 Explain how you ordered the numbers What number is missing? 94, 93, 92, 91, 89 Explain how you know</p>	<p>Number, numerals Zero, one, two.....to one hundred Ten more, ten less Between, before, after Order, compare Greater than (>) Less than (<)</p>

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<p>Number</p> <p>Number and place value</p> <p>Week 2</p>	<p>5</p>	<p>Count on and back in 10s from any one or two digit number (refer to the hundred square)- consider as mental/oral starters and use a counting stick to support</p> <p>Recognise the place value of each digit in a two-digit number using practical apparatus e.g. straws, cubes, ten sticks and units, Dienes, Unifix, arrow/ place value cards</p> <p>Partition two-digit numbers into tens and ones/units e.g. $56 = 50 + 6$; $38 = \square + 8$; $63 = 60 + \square$</p> <p>Partition numbers in different ways (into different combinations of tens and ones) e.g. $56 = 50 + 6$; $56 = 40 + 16$; $56 = 30 + 26$... (consider using base ten resources such as Diennes to support understanding)</p> <p>Solve addition/subtraction problems using knowledge of place value e.g. There are 56 children in the playground. 20 more children come and join them. How many children altogether are there on the playground now? How did you work it out?</p> <p>Reason about numbers e.g. $32 > 23$ true or false? How do you know?</p> <p>If you wrote these numbers in order, starting with the smallest, which one would come third: 60, 16, 98, 26, 89 Explain how you ordered the numbers</p>	<p>Place value</p> <p>Digit, tens, ones/units</p> <p>Partition</p> <p>Greater than/less than, $<$, $>$</p> <p>Order</p>
<p>Number</p> <p>Addition</p> <p>Week 3</p>	<p>5</p>	<p>Add three one-digit numbers using knowledge of number pairs e.g. $7 + 3 + 4 = 10 + 4 = 14$; $6 + 5 + 4 = 6 + 4 + 5 = 10 + 5 = 15$</p> <p>Add two two-digit numbers within 100, initially where no regrouping is required, with the support of base ten resources (such as Dienes), a 100 square and/ or an empty number line e.g. $56 + 32$</p> <p>Add two-two-digit numbers where regrouping is required e.g. $38 + 26$</p> <p>Understand that it is sometimes easier to re-order numbers when adding e.g. $24 + 65$ becomes $65 + 24$ and show an understanding that addition can be done in any order</p> <p>(See Written Calculation Policy, 2017 and Mental Calculation Strategies, 2017)</p> <p>Use estimation to check that the answer is reasonable e.g. know that $34 + 25 = 58$ is incorrect because $4 + 5 = 9$; $40 + 50 < 100$ because $50 + 50 = 100$</p> <p>Solve one- step word problems, which involve addition, including in the context of money e.g. I buy an apple that costs 42p and a banana that costs 35p. How much do I spend altogether?</p> <p>Extend with two-step word problems for children 'working at greater depth' e.g. If I buy a peach for 45p and a satsuma for 38p, how much change will I get from £1?</p>	<p>Addition, +, add, plus, more, put together, altogether, total, count on</p> <p>=, equals, is the same as, calculation, number sentence</p> <p>Tens, ones/units</p> <p>Empty number line</p> <p>Estimate, estimation</p> <p>Problem, answer/solution</p>

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<p>Number</p> <p>Subtraction</p> <p>Week 4</p>	<p>5</p>	<p>Subtract two two-digit numbers within 100, initially where no regrouping is required, with the support of base ten resources (such as Dienes), a 100 square and/ or an empty number line e.g. $86 - 43$</p> <p>Subtract two two-digit numbers where regrouping is required, with the support of base ten resources (such as Dienes), a 100 square and/ or an empty number line e.g. $72 - 34$</p> <p>(See Written Calculation Policy, 2017 and Mental Calculation Strategies, 2017)</p> <p>Use estimation to check that the answer is reasonable e.g. $85 - 32 = 63$ is incorrect because $80 - 30 = 50$</p> <p>Solve one- step word problems, which involve addition, including in the context of money e.g. I have 85p in my purse and I buy a satsuma that costs 32p. How much money do I have left?</p> <p>Extend with two-step word problems for children 'working at greater depth' (consider problems that involve both addition and subtraction)</p>	<p>Subtraction, - , take away, subtract, minus, count back How many are left?</p> <p>=, equals, is the same as, calculation, number sentence</p> <p>Tens, ones/units</p> <p>Empty number line</p> <p>Estimate, estimation</p> <p>Problem, answer/solution</p>
<p>Measurement</p> <p>Mass</p> <p>Week 5</p>	<p>5</p>	<p>Use kilogram (kg) as a unit of measurement for mass e.g. find everyday objects that weigh more than/ less than/ about a kilogram (relate to everyday objects)</p> <p>Introduce gram (g) as a unit of measurement e.g. What weighs about 1g? What weighs about 100g?</p> <p>Choose and use appropriate standard units to estimate and measure the mass (kg/g) of everyday objects to the nearest appropriate unit, using weighing scales where scales are in divisions of ones, two, fives or tens (where all the numbers are given)</p> <p>Compare and order mass using comparative language (see vocabulary) and the symbols <, > and =</p> <p>Follow a line of enquiry relating to mass e.g. Is an apple heavier than a pear? How will you find out?</p> <p>Is this true or false? A pair of trainers is heavier than a kilogram. How will you find out?</p> <p>Solve word problems in the context of mass e.g. My snack bag of fruit and nuts contains 25g of raisins and 35g of peanuts. How much does my snack bag weigh?</p> <p>Alesha weighs 36 kg and her mother weighs 58 kg. How much lighter than her mother is she?</p> <p>(Consider calculation methods taught in week 3 and week 4)</p>	<p>Estimate, compare, measure, weigh, mass</p> <p>Gram (g), kilogram (kg)</p> <p>Heavier than, lighter than Heaviest, lightest <, ></p> <p>Weighing scales, balance, scales</p> <p>Problem, answer/solution</p>

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<p>Number</p> <p>Multiplication</p> <p>Week 6</p>	<p>5</p>	<p>Count forwards and backwards to and from 0 in twos, fives and tens to the 12th multiple; begin to count in multiples of three -consider as mental/oral starters</p> <p>Recognise number patterns using known multiples e.g. What are the missing numbers? 35, 30, 25, □, 15, 10, □</p> <p>Recall and use multiplication facts for the 2, 5 and 10 multiplication tables (including x 0) and record using the multiplication sign</p> <p>Solve missing number problems using known facts e.g. □ x 5 = 20</p> <p>Show that multiplication of two numbers can be done in any order e.g. 2 x 5 = 10 and 5 x 2 = 10 (consider the use of arrays to support understanding)</p> <p>Consolidate multiplication as repeated addition and as arrays using known multiples e.g. twos, fives and tens</p> <p>Extend by using an empty number line to count on using known multiples</p> <p>(See Written Calculation Policy 2017, Mental Calculation Strategies 2017 and Multiplication Tables Guidance 2020)</p> <p>Solve one -step multiplication word problems using practical resources, informal written methods (including pictures and arrays), empty number lines and x and = signs e.g. I have four rabbits and they each eat five carrots. How many carrots do they eat altogether?</p>	<p>Lots of, groups of, repeated addition, times, multiply, multiplied by, multiplication, x, =, multiple</p> <p>Array, row, column</p> <p>Empty number line, count on</p> <p>Problem, answer/solution</p>
<p>Number</p> <p>Division</p> <p>Week 7</p>	<p>5</p>	<p>Count forwards and backwards to and from 0 in multiples of two, five and ten to the 12th multiple; begin to count forwards and backwards to and from 0 in multiples of three - consider as mental/oral activities</p> <p>Recall and use division facts for the 2, 5 and 10 multiplication tables (including dividing by one) and record using the division sign</p> <p>Solve missing number problems using known facts e.g. 30 ÷ □ = 3</p> <p>Consolidate division as sharing, grouping, including the use of arrays</p> <p>Extend by using an empty number line to count back (repeated subtraction) using known multiples</p> <p>(See Written Calculation Policy 2017, Mental Calculation Strategies 2017 and Multiplication Tables Guidance 2020)</p> <p>Solve one -step division word problems using practical resources, informal written methods (including pictures and arrays), empty number lines and signs (÷ and =) e.g. Four children share 12 apples equally. How many apples do they each have?</p>	<p>Share equally, groups of, divide, divided by, repeated subtraction, division, ÷, =</p> <p>Array, row, column</p> <p>Empty number line, count back</p> <p>Problem, answer/solution</p>

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<p>Number Fractions</p> <p>Week 8</p>	<p>5</p>	<p>Recall doubles of numbers to double 12 and find the corresponding halves; derive doubles of multiples of ten and the corresponding halves e.g. double 20 is 40, half of 40 is 20 (consider as mental/oral starters)</p> <p>Consolidate finding one half and one quarter of shapes and of a small set of objects, quantities and lengths e.g. $\frac{1}{2}$ of 20cm, $\frac{1}{4}$ of 12p (link unit fractions to equal sharing, grouping and division)</p> <p>Recognise, name and write fractions two quarters and three quarters using words and fraction notation; find $\frac{2}{4}$, $\frac{3}{4}$ of familiar shapes</p> <p>Begin to find $\frac{3}{4}$ of a small set of objects, using practical resources and diagrams (including arrays) to support e.g. $\frac{3}{4}$ of 12 cherries</p> <p>Recognise the equivalence of half and two quarters using diagrams and resources and through practical activities, such as paper folding</p> <p>Extend by introducing one third ($\frac{1}{3}$) using the word and fraction notation; identify $\frac{1}{3}$ of a shape and find $\frac{1}{3}$ of a small set of objects (using equal sharing, grouping, with practical resources and arrays)</p> <p>Solve problems, which involve fractions e.g. There are 12 apples in a bag. I eat $\frac{1}{4}$ of the apples. How many do I eat? How many are left in the bag?</p> <p>Reason about fractions e.g. Which would you rather have- one quarter of £20 or one half of £12? Why? How did you work it out?</p>	<p>Double</p> <p>Fraction Half, one quarter, two quarters, three quarters, one third, whole, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$, $\frac{1}{3}$</p> <p>Equal parts</p> <p>Share, groups of, divide, divided by, shared equally, \div</p> <p>Problem, solution</p> <p>Reason</p>
<p>Measurement Money & Time</p> <p>Week 9</p>	<p>2</p> <p>3</p>	<p>Consolidate recognising different coins (including £2) and notes (£5, £10, £20) and understand their value; use the symbols (£) and pence (p); know the relationship between pounds and pence (£1 = 100p)</p> <p>Find different combinations of coins that equal the same amount of money in practical contexts e.g. Which silver coins could you use to pay for the book that costs 40p? Consider using the problem 'Monster' (See Mathematical Challenges for all pupils booklet, 2016)</p> <p>Use units of time (minutes & hours) and know the relationships between them; know that there are 60 minutes in an hour and 24 hours in one day</p> <p>Read the time to the hour, the half hour and the quarter hour (past and to) using an analogue clock</p> <p>Extend by telling the time to the nearest five minutes using an analogue clock (past the hour and then to the hour) for children 'working at greater depth'</p>	<p>Coin, note, penny, pence (p), pound (£)</p> <p>Combination, solution</p> <p>O'clock, half past, quarter past, quarter to</p> <p>Analogue clock, minute, hour, day</p>

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<p>Geometry</p> <p>Properties of 2D shapes</p> <p>&</p> <p>Properties of 3D shapes</p> <p>&</p> <p>Position and direction</p> <p>Week 10</p>	<p>2</p> <p>2</p> <p>1</p>	<p>Introduce right angles and identify them in 2D shapes; relate right angles to quarter turns</p> <p>Compare and sort common 2D shapes according to their properties using simple Venn or Carroll diagrams e.g. shapes with right angles/shapes with no right angles</p> <p>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 and use 'circular', 'rectangular', 'triangular' to describe faces e.g. I have two triangular faces and three rectangular faces. What am I?</p> <p>Compare and sort 3D shapes (including everyday objects) according to their properties using simple Venn diagrams or sorting circles e.g. shapes that have square faces; shapes that have circular faces; shapes that have triangular faces</p> <p>Reason about 2-D and 3-D shapes e.g. What is the same about these two shapes; what is different about these two shapes?</p> <p>Use mathematical language to describe movement using half, quarter and three quarter turns, clockwise and anti-clockwise (relate to telling the time/ the clock face)</p> <p>Apply rotations in practical contexts and relate quarter turns to right angles e.g. giving instructions to other pupils, programming robots</p>	<p>All vocabulary related to 2D shape from the previous term including: pentagon, hexagon, symmetry, symmetrical, line of symmetry</p> <p>Right angle</p> <p>Venn diagram, sort</p> <p>All vocabulary related to 3D shapes from the previous term including: prism, edges, faces, vertices</p> <p>Circular, rectangular, triangular (faces)</p> <p>Turn, whole turn, half turn, quarter turn, three-quarter turn</p> <p>Clockwise, anti-clockwise</p> <p>Right angles</p>
<p>Number</p> <p>Addition/ subtraction (mental calculation strategies)</p> <p>&</p> <p>Statistics</p> <p>Data handling</p> <p>Week 11</p>	<p>3</p> <p>2</p>	<p>Recall and use all pairs of numbers with a total of 20 and all pairs of numbers within 20; give addition and subtraction facts e.g. $12 + \square = 20$; $\square + 3 = 16$; $20 - \square = 15$</p> <p>Show that addition of two numbers can be done in any order e.g. $5 + 15 = 20$; $15 + 5 = 20$</p> <p>Add three one-digit numbers, using knowledge of number pairs e.g. $6 + 7 + 4 = 10 + 7 = 17$</p> <p>Find a small difference by counting on, including with the use of a marked number line or an empty number line e.g. $32 - 29 = 3$; the difference between 29 and 32 is 3</p> <p>(See Mental Calculation Strategies, 2017)</p> <p>Interpret simple tally charts</p> <p>Interpret block diagrams and answer questions by counting the number of objects in each category; construct simple block diagrams using given/collected information</p> <p>Interpret simple block diagrams with scales of divisions of two, five or ten</p> <p>Begin to answer simple questions about totalling and comparing the data e.g. how many children altogether chose cats and dogs? How many more children chose dogs than hamsters? (Possible link to the Science curriculum)</p>	<p>Addition, +, add, plus, more, put together, altogether, total, sum of, =, equals, is the same as</p> <p>Subtraction, -, take away, subtract, minus, difference</p> <p>Count on/ count back</p> <p>Tally chart</p> <p>Block diagram</p> <p>Data</p> <p>Scale</p>

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<p>Measurement</p> <p>Capacity & Temperature</p> <p>Week 12</p>	<p>3</p> <p>2</p>	<p>Use litre (l) as a unit of measurement for capacity e.g. find everyday containers that hold more than/less than a litre; find containers that hold about a litre/ half a litre</p> <p>Introduce millilitres (ml) as a unit of measurement in practical contexts and using real life containers</p> <p>Choose and use appropriate standard units to estimate and measure capacity (l/ml) to the nearest appropriate unit, where scales are in divisions of ones, two, fives or tens, using measuring jugs and cylinders</p> <p>Compare and order capacity using comparative language and symbols <, > and = (using everyday containers)</p> <p>Follow a line of enquiry relating to capacity e.g. Is it true that my flask holds more tea than my mug? How could you find out? Using a litre of apple juice, how many cups can you fill?</p> <p>Introduce ° C as a unit of measurement for temperature; read a thermometer (positive temperatures only) to the nearest appropriate unit</p> <p>Relate temperature to the months/seasons of the year (possible link to science)</p>	<p>Estimate, compare, measure Capacity/ volume litre (l), millilitre (ml)</p> <p>More than, less than</p> <p>° C, temperature, thermometer Months (January, February...), Seasons (spring, summer, autumn, winter)</p>
<p>Additional weeks</p> <p>To be used for:</p> <ul style="list-style-type: none"> • assessment, consolidation and responding to AfL • additional using and applying activities 			