Autumn
Autumn

| Week 1 Week 2 | Week 3 Week 4 | Week 5 | Week 6 |
| :---: | :---: | :---: | :---: |
| Place Value | Addition and Subtraction | Properties of Shape | Multiplication and Division |
| Number, numeral, digit, thousands, hundreds, tens, ones, one hundred more, one hundred less More, less, is the same as, most, least, equal, compare, fewer, smaller, largest, greatest, order | Column addition, addition, sum, total, altogether, hundreds boundaries, rows, column, doubling, halving <br> Column subtraction, subtraction, take away, how many left, doubling, halving, find the difference | Curved, flat, edges, faces, vertex, vertices, prism, pentagonal, hexagonal, octagonal, parallel, angles, quadrilateral | Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns, inverse |
| Recall bonds to 100 (tens and tens and ones) |  |  |  |
| $\rightarrow$ Continue to count forwards and backwards in ones and tens from any number to 100 and beyond to establish fluency, especially across boundaries of 10 s and 100s. <br> $\rightarrow$ Read and write numbers to at least 100 in numerals and words. <br> $\rightarrow$ Compare and order numbers from 0 up to 100; use $\gg$, and = signs. <br> $\rightarrow$ Identify, represent and estimate numbers using different representations, including the number line and spatial representations. <br> Recognise the place value of each digit in a two-digit number (tens, ones). <br> $\rightarrow$ Partition numbers in different ways e.g. $23=20+3$ and $23=10+13$ to support subtraction. <br> $\rightarrow$ Understand e.g. 23 as $20+3$ and as 2 tens and 3 ones. <br> $\rightarrow$ Begin to understand zero as a place holder. <br> $\rightarrow$ Use place value and number facts to solve problems <br> $\rightarrow$ Count in steps of $\mathbf{2 , 3}$ and 5 from 0 and in tens from any number, forward and back. Counting in steps of three will support later understanding of a third. <br> $\rightarrow$ Recognize patterns in numbers to and beyond 100. <br> $\rightarrow$ Find $\mathbf{1 0}$ more or $\mathbf{1 0}$ less than any given number. | $\rightarrow$ Recall and use addition and subtraction facts to 20 fluently and derive and use related facts to 100 e.g. use $3+7=10 ; 10-7=3$ and $7=10-3$ to calculate $30+70=100 ; 100-70=30$ and $70=100$ $-30$. <br> $\rightarrow$ Add and subtract numbers using concrete objects, pictorial representations and mentally, including: <br> a two-digit number and ones; a two-digit number and tens; two two-digit numbers, and adding three one-digit numbers <br> $\rightarrow$ Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. <br> $\rightarrow$ Use and explain a range of mental strategies appropriate to the numbers involved, sometimes supporting explanations with jottings or informal recording. <br> Continue to extend understanding of language of addition and subtraction to include sum and <br> difference <br> $\rightarrow$ Using concrete objects and pictorial representations, including those involving numbers, quantities and measures. <br> $\rightarrow$ Applying increasing knowledge of mental and written methods. <br> $\rightarrow$ Use and explain a range of mental strategies appropriate to the numbers involved, sometimes supporting explanations with jottings or informal recording. <br> $\rightarrow$ Check calculations e.g. by adding to check subtraction and adding numbers in a different order to check addition e.g. $5+2+1=1+5+2=1+2+5$. This establishes commutativity and associativity of addition. <br> $\rightarrow$ Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | $\rightarrow$ Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. <br> $\rightarrow$ Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. <br> $\rightarrow$ Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]. <br> $\rightarrow$ Compare and sort common 2-D and 3-D shapes and everyday objects on the basis of their properties and use vocabulary precisely. <br> $\rightarrow$ Read and write names of shapes appropriate to their word reading and spelling. | $\rightarrow$ Recall and use multiplication and division facts for the $\mathbf{2 , 5}$ and $\mathbf{1 0}$ multiplication tables, including recognizing odd and even numbers. <br> $\rightarrow$ Continue to recognise doubles and corresponding halves <br> $\rightarrow$ Connect the 2,5 and 10 multiplication tables to each other. Connect the 10 multiplication table to place value and the 5 multiplication table to the divisions on a clock face. <br> $\rightarrow$ Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. <br> $\rightarrow$ Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division ( $\div$ ) and equals ( $=$ ) signs. <br> $\rightarrow$ Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. <br> $\rightarrow$ Work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. Relate these to fractions and measures. <br> $\rightarrow$ Use a variety of language to describe multiplication and division |
| $\rightarrow$ Find $\mathbf{1 0}$ or $\mathbf{1 0 0}$ more or less than agiven number. <br> $\rightarrow$ Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). <br> $\rightarrow$ Compare and order numbers up to 1000. <br> $\rightarrow$ Read and write numbers up to 1000 in numerals and in words. <br> $\rightarrow$ Solve number problems and practical problems involving these ideas. <br> $\rightarrow$ Count from 0 in multiples of $4,8,50$ and 100. | $\rightarrow$ Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens, a three-digit number and hundreds. <br> $\rightarrow$ Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. | $\begin{aligned} & \rightarrow \text { Draw 2-D shapes and make 3-D shapes using } \\ & \text { modelling materials. } \\ & \rightarrow \text { Recognise 3-D shapes indifferent orientations } \\ & \text { and describe them. } \end{aligned}$ | $\rightarrow$ Count from 0 in multiples of 4, 8, 50 and 100 . $\rightarrow$ Recall and use multiplication and division facts for the $3,4, \rightarrow$ Multiplication - equal groups. |
| $\rightarrow$ Represent numbers to $100 \rightarrow$ Partition numbers to 100 <br> $\rightarrow$ Tens and ones using addition $\rightarrow$ Number line to 100. <br> $\rightarrow$ Hundreds. $\rightarrow$ Partition numbers to 1,000 <br> Flexible partition of numbers to 1000 <br> $\rightarrow$ Represent numbers to 1,000 . <br> 3NPV-1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10 ; apply this to identify and work out how many 10 s there are in other three-digit multiples of 10 <br> $\rightarrow 100 \mathrm{~s}, 10 \mathrm{~s}$ and $1 \mathrm{~s}(1) \rightarrow 100 \mathrm{~s}, 10 \mathrm{~s}$ and $1 \mathrm{~s}(2)$.. <br> 3NPV-4 Divide 100 into $2,4,5$ and 10 equal parts, and read scales/number lines marked in multiples of 100 with $2,4,5$ and 10 equal parts. <br> $\rightarrow$ Number line to $1,000 . \rightarrow$ Find 1,10, 100 more or less than agiven number. | 3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10 ). <br> 3AS-2 Add and subtract up to three-digit numbers using columnar methods. <br> Apply number bonds within 10. - Add and subtract 1s $>$ Add and subtract 100s <br> $\rightarrow$ Add and subtract multiples of 100 . - Spot patterns <br> Add 1 s across a 10. - Add 10 s across $100 \Rightarrow$ Subtract 1 s across a 10 <br> Subtract 10s across a 100. - Make connections <br> Add two numbers (no exchange) <br> subtract 2 numbers (no exchange) <br> Add two numbers (across a 10) - Add two numbers (across a 100 ) | 3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. <br> $\rightarrow$ Recognise and describe 2D shapes. <br> $\rightarrow$ Recognise and describe 3D shapes. <br> $\rightarrow$ Make 3D shapes. | à Multiplication using the symbol - Multiplication equal groups <br> Use arrays à 2 times tables $\Rightarrow$ Multiples of 2 3 NF-2 Recall multiplication facts, and corresponding division facts, in the $10,5,2,4$ and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number 3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division. <br> Multiples of 5 and 10 |


| - Estimate on a number line to 1,000 <br> $\rightarrow$ Compare objects to 1,000 . $\rightarrow$ Compare numbers to 1,000 . <br> 3NPV-2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning. <br> $\rightarrow$ Order numbers to 1,000. $\rightarrow$ Count in 50 s. | Subtract two numbers (across a 10) $\rightarrow$ Subtract two numbers (across a 10) <br> $\rightarrow$ Check |
| :---: | :---: |

Autumn

|  | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 Week 12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Multiplication and Division | Addition and Subtraction |  | Money | Multiplication and Division |
| 2 | Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns, inverse Multiple, divide, times, groups of, lots of, shared, factor, product, emainder, array, sharing, number patterns | Column addition, addition, sum, total, altogether, hundreds boundaries, rows, column, doubling, halving, Column subtraction, subtraction, take away, how many left, find the difference Converting metres to cm and vice versa | Money, coins, notes, penny, pence, total | change, how much left, how many left, | Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns, inverse Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns, inverse |
| $\frac{u}{\frac{u}{x}}$ | Find 1,10 or 100 more or less than a number |  |  |  |  |
|  | $\rightarrow$ See previous | Solve problems with addition and subtraction Using concrete objects and pictorial representations, including those involving numbers, quantities and measures. <br> Apply understanding of number operations to solve number puzzles and non-routine problems and explain reasoning. | $\rightarrow$ Become fluent in counting and and say amounts of money confid $\rightarrow$ Recognise and use symbols for amounts to make a particular val $\rightarrow$ Find different combinations of of money. <br> $\rightarrow$ Apply understanding of number routine problems and puzzles invol $\rightarrow$ Solve simple problems in a pra subtraction of money of the sam $\rightarrow$ Use all four operations to solve involving measure (e.g. length, mass, required to solve a problem is often | d recognizing coins and notes. Read idently. <br> or pounds (f) and pence (p); combine value. <br> of coins that equal the same amounts <br> er properties to solve routine and nonvolving numbers, money or measure. ractical context involving addition and me unit, including giving change. e problems including scaling problems mass, volume, money). Information ten drawn from tables, and charts | $\rightarrow$ See previous |
| U $\cdots$ | $\rightarrow$ Count from 0 in multiples of $4,8,50$ and 100. <br> $\rightarrow$ Recall and use multiplication and division facts for the 3,4, $\rightarrow$ Multiplication - equal groups. | $\rightarrow$ Add and subtract numbers mentally, including: a threedigit number and ones; a three-digit number and tens, a three-digit number and hundreds. <br> $\rightarrow$ Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. | $\rightarrow$ Add and subtract amounts of mo in practical contexts. | money to give change, using both $£$ and $p$ | $\rightarrow$ Recall and use multiplication and division facts for the 3, 4, 6 and 8 multiplication tables. <br> $\rightarrow$ Write and calculate mathematical statements for multiplication and division using the multiplication tables they know. <br> $\rightarrow$ Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives. |
|  | 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10 ). <br> $\rightarrow$ Multiplying by 3 . <br> $\rightarrow$ Dividing by 3 . <br> $\rightarrow$ The 3 times-table. <br> $\rightarrow$ Multiplying by 4 . <br> $\rightarrow$ Dividing by 4 . <br> $\rightarrow$ The 4 times-table. | 3NF-1 Secure fluency in addition and subtraction facts that bridge 10 , through continued practice. <br> Add 2-digit and 3-digit numbers <br> Subtract a 2-digit number from a 3-digit number <br> Complements to 100 <br> Estimate answers <br> Inverse operations <br> Make decisions | 3AS-1 Calculate complements to 10 <br> $\rightarrow$ Count money (pence) <br> $\rightarrow$ Count money (pounds) <br> $\rightarrow$ Pounds and pence. <br> $\rightarrow$ Converting pounds and pence. <br> $\rightarrow$ Adding money. <br> $\rightarrow$ Subtracting money. <br> $\rightarrow$ Giving change. |  | $\rightarrow$ Consolidate 2, 4 and 8 times tables <br> 3NF-2 Recall multiplication facts, and corresponding division facts, in the $10,5,2,4$ and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number <br> 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10 ). <br> 3NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with $2,4,5$ and 10 equal parts. <br> $\rightarrow$ Comparing statements. <br> $\rightarrow$ Related calculations. <br> $\rightarrow$ Multiply 2-digits by 1-digit (1). <br> $\rightarrow$ Multiplying by 6 <br> $\rightarrow$ Dividing by 6 <br> $\rightarrow 6$ times tables |

Spring

|  | Week $1 \times$ Week 2 | Week 3 Week 4 | Week $5 \times$ Week 6 |
| :---: | :---: | :---: | :---: |
|  | Place Value | Multiplication and Division | Fractions |
| $\begin{aligned} & \text { ㅇ } \\ & \stackrel{8}{8} \\ & \hline 0 \end{aligned}$ | Guess, How many?, estimate, nearly, roughly, close to approximate, approximately, about the same as, just over, just under Exact, exactly, too many, too few, enough, not enough, round, nearest, round to the nearest ten, hundred, round up, round down. | ```Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns, inverse, expanded multiplication Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns, short division, bus stop method``` | ```Fraction, equivalent fraction, mixed number, numerator, denominator, equal part, equal grouping, equal sharing, parts of whole, half, two halves, one of two equal parts, quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts, sixths, sevenths, eighths, tenths.``` |

Know the multiplication and division facts for the 3 times tables
Apply understanding of the number system to solve problems and puzzles
volving numbers, money or measures. Explain methods and reasoning orally nd in writing, including using diagrams and symbol.
$\rightarrow$ Develop lines of enquiry through conjecturing relationships and
eneralisations and testing ideas. Identify examples for which a statement is ue or false.
$\rightarrow$ Recognise and extend number sequences formed by counting from any umber in steps of constant size
$\rightarrow$ Explore and discuss patterns, properties and relationships that arise in the number system using appropriate mathematical vocabulary.
Apply understanding of number properties to solve routine and non-routine roblems and puzzles involving numbers, money or measure.

Identify, represent and estimate numbers using different representations.
Recognise the place value of each digit in a three-digit number (hundreds, tens, nes). revisited
Compare and order numbers up to 1000. revisited
Count from 0 in multiples of $4,8,50$ and 100 .
Represent numbers to 1,000 .
NPV -1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the ere of 10 ; apply this to identify and work out how many 10 s there are in other three git multiples of 10
Compare objects to 1,000 .

Compare numbers to 1,000
nd decompose three-digit numbers using digit in three-digit numbers, and compose
Order nurs. $n$-standard partitioning.
Count in 50 s.
NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines arked in multiples of 100 with $2,4,5$ and 10 equal parts.

| $\mid \rightarrow$ See previous | Connect unit fractions to equal sharing and grouping, to numbers when they can be calculated and to measures, finding fractions of lengths, quantities, sets of objects and shapes. <br> $\rightarrow$ Recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$, and $3 / 4$ of a length, shape and set of objects or quantity. <br> $\rightarrow$ Write simple fractions e.g. $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ $\rightarrow$ Use fractions as 'fractions of' discrete (e.g. countables) and continuous (e.g. liquid) quantities by solving problems using shapes, objects and quantities. <br> $\rightarrow$ Connect unit fractions to equal sharing and grouping, to numbers when they can be calculated and to measures, finding fractions of lengths, quantities, sets of objects and shapes. <br> $\rightarrow$ Count in fractions up to 10 starting at any number and using the $1 / 2$ and $2 / 4$ equivalence on the number line e.g. $1 \frac{1}{4}, 12 / 4$, (or $11 / 2$ ) $13 / 4,2$. <br> 3F-3 Reason about the location of any fraction within 1 in the linear number system. <br> $\rightarrow$ Reinforce the concept of fractions as numbers and that they can add up to more than one. |
| :---: | :---: |
| $\rightarrow$ Recall and use multiplication and division facts for the 3, 4, 6 and 8 multiplication tables. <br> $\rightarrow$ Write and calculate mathematical statements for multiplication and division using the <br> multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. <br> $\rightarrow$ Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives. | $\rightarrow$ Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. <br> $\rightarrow$ Recognise and use fractions as numbers: unit fractions and non- unit fractions with small denominators. <br> $\rightarrow$ Recognise, find and write fractions of a discrete set of objects: unit fractions and non- unit fractions with small denominators. |
| 3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number <br> $\rightarrow$ Multiplying by 8 . <br> $\rightarrow$ Dividing by 8 . <br> $\rightarrow$ The 8 times-table. <br> The 2, 4 and 8 times tables. <br> $\rightarrow$ Multiply 2 -digits by 1 -digit (2). <br> $\rightarrow$ Divide 2-digits by 1-digit (1). <br> $\rightarrow$ Divide 2-digits by 1-digit (2). <br> $\rightarrow$ Divide 2-digits by 1-digit (3). | $\rightarrow$ Working with wholes and parts activity <br> 3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. <br> $\rightarrow$ Recap making equal parts <br> Recognise half $\rightarrow$ Find half <br> $\rightarrow$ Recognise quarter $\rightarrow$ Find a quarter <br> $\rightarrow$ Recognise third $\rightarrow$ Find a third <br> $\rightarrow$ Unit fractions $\rightarrow$ Non-unit fractions <br> $\rightarrow$ Equivalence of half and 2/4 $\rightarrow$ Count in fractions 3F-3 Reason about the location of any <br> fraction within 1 in the linear number system. <br> $\rightarrow$ Unit and non-unit fractions. <br> $\rightarrow$ Making the whole. <br> $\rightarrow$ Tenths. <br> $\rightarrow$ Count in tenths. <br> $\rightarrow$ Tenths as decimals. <br> $\rightarrow$ Fractions of a number line. <br> 3F-3 Reason about the location of any fraction within 1 in the linear number system. <br> $\rightarrow$ Fractions of a set of objects(1) <br> 3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency). |

Spring

| Week 7 Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
| :---: | :---: | :---: | :---: | :---: |
| Length and Perimeter | Time | Statistics | Addition and Subtraction | Properties of Shape |
| Millimetre, centimetre, metre, kilometre, mile, height, width, depth, long, short, tall, high low, wide, narrow, thick, thin, longer, shorter, higher, longest, shortest, highest, far, further, furthest, near, close, distance apart, ruler, metre stick, tape measure, between, to, from, perimeter. | Time, days of the week, months of the year, day, week, weekend, fortnight, century, today, yesterday, before, after, earlier, later, next, first, last, calendar, earliest, latest, now, soon, early, late, quick, quickest, old, oldest, new, newest. | Count, tally, sort, vote, graph, block graph, pictogram, represent, group, set, list, table, chart, bar chart, frequency table, Carroll diagram, Venn diagram, label, title, axis, axes, diagram, most popular, most common, least popular, least common. | Column addition, addition, sum, total, altogether, hundreds boundaries, rows, column, doubling, halving, Column subtraction, subtraction, take away, how many left, find the difference | Face, edge, vertex, vertices, cube, cuboid, pyramid, sphere, hemisphere, cone, cylinder, prism, triangular prism. |

Know the multiplication and division facts for the 4 times tables

| $\rightarrow$ Choose and use appropriate standard units to estimate and measure, with increasing accuracy, length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature ( ${ }^{\circ} \mathrm{C}$ ); capacity (litres $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. <br> $\rightarrow$ Use appropriate language for measuring and record using standard abbreviations. <br> $\rightarrow$ Compare using simple multiples such as 'half as high', 'twice as wide'. <br> $\rightarrow$ Compare and order lengths, mass, volume/capacity and record the results using >, < and $=$. <br> $\rightarrow$ Apply understanding of number properties to solve routine and non-routine problems and puzzles involving numbers, money or measure. <br> $\rightarrow$ Using concrete objects and pictorial representations, including those involving numbers, quantities and measures. | $\rightarrow$ Compare and sequence intervals of time. <br> $\rightarrow$ Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. <br> $\rightarrow$ Know the number of minutes in an hour and the number of hours in a day. | $\rightarrow$ See previous | $\rightarrow$ See previous | àSolve problems, involving reasoning about shapes and their properties. Explain solutions orally or using writing, drawings or practical materials. |
| :---: | :---: | :---: | :---: | :---: |
| $\rightarrow$ Measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity ( $/ \mathrm{ml}$ ). <br> $\rightarrow$ Measure the perimeter of simple 2D shapes. | $\rightarrow$ Record and compare time in terms of seconds, minutes and hours. <br> $\rightarrow$ Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. <br> $\rightarrow$ Know the number of seconds in a minute and the number of days in each month, year and leap year <br> $\rightarrow$ Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. $\rightarrow$ Estimate and read time with increasing accuracy to the nearest minute. | $\rightarrow$ Interpret and present data using bar charts, pictograms and tables. <br> $\rightarrow$ 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. | $\rightarrow$ Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens, a three digit number and hundreds. <br> $\rightarrow$ Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. <br> $\rightarrow$ Estimate the answer to a calculation and use inverse operations to check answers. | $\rightarrow$ Recognise angles as a property of shape or a description of a turn. <br> $\rightarrow$ Identify right angles, recognise that two right angles make a half- turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. |
| $\rightarrow$ Measure length. <br> $\rightarrow$ Measure lenth (m) <br> $\rightarrow$ Equivalent lengths - m \& cm. <br> $\rightarrow$ Equivalent lengths $-\mathrm{mm} \& \mathrm{~cm}$. <br> $\rightarrow$ Compare lengths <br> $\rightarrow$ Compare lengths. <br> $\rightarrow$ Add lengths. <br> $\rightarrow$ Subtraction lengths. <br> àMeasure perimeter. <br> àCalculate perimeter. | $\rightarrow O^{\prime}$ clock and half past. <br> $\rightarrow$ Quarter past and quarter to. <br> $\rightarrow$ Months and years. <br> $\rightarrow$ Hours in a day. <br> $\rightarrow$ Telling the time to 5 minutes. <br> $\rightarrow$ Telling the time to the minute. $\rightarrow A M$ and $P M$. | $\begin{aligned} & \text { - Make tally charts } \\ & \rightarrow \text { Draw pictograms (1-1) } \\ & \rightarrow \text { Interpret pictograms (1-1) } \\ & \rightarrow \text { Pictograms. } \\ & \rightarrow \text { Bar charts. } \\ & \rightarrow \text { Trables. } \end{aligned}$ | 3NF-1 Secure fluency in addition and subtraction facts that bridge 10 , through continued practice. $\rightarrow$ Add and subtract a 2 -digit and 3 -digit number not crossing 10 or 100 . <br> 3 NPV-2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and nonstandard partitioning. <br> 3AS-2 Add and subtract up to three-digit numbers using columnar methods. <br> 3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction. $\rightarrow$ Add a 2-digit and 3-digit number - crossing 10 or 100. | $\rightarrow$ Turns and angles. <br> $\rightarrow$ Right angles in shapes. <br> 3G-1 Recognise right angles as a property o shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. <br> $\rightarrow$ Compare angles. <br> $\rightarrow$ Draw accurately. <br> 3G-2 Draw polygons by joining marked points, and identify parallel and perpendicular sides. |

cross the 10 or 100 .
$\rightarrow$ Add two 3-digit numbers - not crossing 10 or 100 .
$\rightarrow$ Add two 3 -digit numbers - crossing 10 or 100 . $\rightarrow$ Subtract a 3 -digit number from a 3 -digit
number - no exchange.
$\rightarrow$ Subtract a 3-digit number from a 3-digit number - exchange.
$\rightarrow$ Exchange answers to calculations.
$\rightarrow$ Check. Revisited

Summer

|  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 Week 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Place Value | Addition and Subtraction | Fractions | Time | Multiplication and Division |
| $\begin{aligned} & 2 \\ & \frac{2}{10} \\ & \frac{1}{1} \\ & \frac{0}{8} \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | Roman Numerals, exact, exactly, too many, too few, enough, not enough, round, nearest, round to the nearest ten, hundred, round up, round down. | Column addition, addition, sum, total, altogether, hundreds boundaries, rows, column, doubling, halving Column subtraction, subtraction, take away, how many left, doubling, halving, find the difference | equivalent, mixed number, numerator, denominator, equal part, equal grouping, equal sharing, <br> parts of whole, half, two halves, one of two equal parts, quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts, sixths, sevenths, eighths, tenths. | Takes longer, takes less time, how long ago? How long will it be to? How will it take to? How often? Always, never, often, sometimes, usually, once, twice, hour, o'clock, half past, quarter past, quarter to, $5,10,15$ minutes past, am, pm, clock, clock face, hours, minutes, roman numerals, 12 hour clock time, 24 hour clock time. | Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns, inverse Multiple, divide, times, groups of, lots of, shared, factor, product, remainder, array, sharing, number patterns |
| 号 | Know the multiplication and division facts for the 8 times tables |  |  |  |  |
| o 0 0 0 0 0 0 0 0 0 N | à See previous | $\rightarrow$ See previous | $\rightarrow$ Apply understanding of fractions to solve routine and non-routine problems and puzzles involving numbers, shapes, money or measures. Explain methods and reasoning orally and in writing, including using diagrams and symbols. | $\rightarrow$ Apply understanding of number properties to solve routine and nonroutine problems and puzzles involving numbers, money or measure. | $\rightarrow$ See previous |
| $\begin{aligned} & y_{2}^{2} \\ & m \end{aligned}$ | $\rightarrow$ Identify, represent and estimate numbers using different representations. revisited <br> $\rightarrow$ Find 10 or $\mathbf{1 0 0}$ more or less than agiven number. revisited <br> $\rightarrow$ Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). <br> $\rightarrow$ Compare and order numbers up to $\mathbf{1 0 0 0}$. revisited <br> $\rightarrow$ Read and write numbers up to 1000 in numerals and in words. revisited <br> $\rightarrow$ Solve number problems and practical problems involving these ideas. revisited <br> $\rightarrow$ Count from 0 in multiples of 4, 8,50 and 100 revisited | $\rightarrow$ Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. | $\rightarrow$ Compare and order unit fractions, and fractions with the same denominators. <br> $\rightarrow$ Add and subtract fractions with the same denominator within one whole [for example, $57+17=67$ ] Solve problems that involve all of the above. | $\rightarrow$ Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24 hour clocks. <br> $\rightarrow$ Estimate and read time with increasing accuracy to thenearest minute. <br> $\rightarrow$ Compare durations of events [for example to calculate the time taken by particular events or tasks]. | $\rightarrow$ Recall and use multiplication and division facts for the 3, 4, 6 and 8 multiplication tables. <br> $\rightarrow$ Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. $\rightarrow$ Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which $n$ objects are connected to $m$ objectives. |
|  | $\rightarrow$ See previous small steps <br> 3NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with $2,4,5$ and 10 equal parts. | 3NF-1 Secure fluency in addition and subtraction facts that bridge 10 , through continued practice. <br> $\rightarrow$ See previous small steps 3AS-2 Add and subtract up to three-digit numbers using columnar methods. $\rightarrow$ Exchange answers to calculations. | $\rightarrow$ Compare fractions $\rightarrow$ Order fractions $3 F-4$ Add and subtract fractions with the same denominator, within 1. $\rightarrow$ Add fractions $3 F-4$ Add and subtract fractions with the same denominator, within 1. $\rightarrow$ Subtract fractions | $\rightarrow 24$ hour clock. <br> $\rightarrow$ Finding the duration. <br> $\rightarrow$ Comparing the duration. àstart and end times. àMeasuring time in seconds. | àSee previous small steps <br> 3NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with $2,4,5$ and 10 equal parts. <br> 3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number |

Summer

|  | Week 7 | Week 8 Week 9 | Week 10 | Week 11 | Week 12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fractions | Mass and Capacity | Statistics | Properties of Shape | Position and Direction |
| \% | Fractions, numerator, denominator, parts of whole, half, <br> two halves, one of two equal parts, quarter, two quarters, <br> three quarters, one of four equal parts, one third, two <br> thirdss one of three equal parts, sixths, sevenths, eighths, <br> tenths. | Kilogram, half kilogram, gram, weigh, weighs, balance, heavy, light, heavier than, lighter than, heaviest, lightest, scales Litre, half litre, millilitre, capacity, volume, full, empty, more than, less than, half full, quarter full, holds, contains, container. | Count, tally, sort, vote, graph, block graph, pictogram, represent, group, set, list, table, chart, bar chart, frequency table, Carroll diagram, Venn diagram, label, title, axis, axes, diagram, most popular, most common, least popular, least common | Angle, is greater than, smaller than, right angle, clockwise, anti-clockwise, acute angle, obtuse angle, straight line | Compass point, north, south, east, movement, slide, roll, turn, whole, turn, half turn, quarter turn, three quarter turn |
|  | Related Facts |  |  |  |  |
|  | 3 See previous | $\rightarrow$ Compare and order lengths, mass, volume/capacity and record the results using $>,<$ and $=$. <br> $\rightarrow$ Apply understanding of number properties to solve routine and non-routine problems and puzzles involving numbers, money or measure. <br> $\rightarrow$ Use all four operations to solve problems including scaling problems involving measure (e.g. length, mass, volume, money). Information required to solve a problem is often drawn from tables, and charts <br> $\rightarrow$ Make and explain connections between number, measures and shape <br> $\rightarrow$ Apply measuring skills to an appropriate degree of accuracy, alongside the skills of thinking mathematically to solve problems. These should include practical problems and might involve construction of shapes or artefacts, often in a cross curricular context. | $\rightarrow$ Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. <br> $\rightarrow$ Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. <br> $\rightarrow$ Ask and answer questions about totalling and comparing categorical data. <br> $\rightarrow$ Apply the skills of collecting, representing and interpreting statistical data across the curriculum within and beyond mathematic, sometimes in response to an enquiry of interest to and suggested by pupils. <br> $\rightarrow$ Use many-to-one correspondence in pictograms with simple ratios $2,5,10$. <br> $\rightarrow$ Pose their own questions that can be answered using information presented in different pictograms, tally charts, block diagrams and simple tables <br> $\rightarrow$ Understand and use Venn and Carroll diagrams to support reasoning about numbers or shapes <br> $\rightarrow$ Solve calculation problems using information from a range of pictograms, tally charts, block diagrams and simple tables | $\rightarrow$ Make and explain connections between number, measures and shape | $\rightarrow$ Order and arrange combinations of mathematical objects in patterns and sequences including the use of shapes in different orientations. $\rightarrow$ 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 anti-clockwise). $\rightarrow$ Use the language of angles in practical contexts e.g. pupils moving in turns, instructing others to do so and programming robots using instructions given in right angles |
| ¢ | $\rightarrow$ Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 . <br> $\rightarrow$ Recognise and use fractions as numbers: unit fractions <br> and non- unit fractions with small denominators. <br> $\rightarrow$ Recognise, find and write fractions of a discrete set of objects: unit fractions and non- unit fractions with small <br> $\rightarrow$ Solve problems that involve all of the above. | $\rightarrow$ Measure, compare, add and subtract: mass (kg/g); volume/capacity ( $1 / \mathrm{ml}$ ). | $\rightarrow$ Interpret and present data using bar charts, pictograms and tables. <br> $\rightarrow$ 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. | $\rightarrow$ Recognise angles as a property of shape or a description of aturn. revisited <br> $\rightarrow$ Identify right angles, recognise that two right angles make a half- turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. revisited $\rightarrow$ Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. | $\rightarrow$ Continue to use mathematical language to describe position, direction and movement including movement in a straight line and quarter, half, three quarter and full turns both clockwise and anticlockwise <br> $\rightarrow$ Recognise and use the four compass directions N, E, S, W |
| \% | $\rightarrow$ Fractions of a set of objects(1). Revisited $3 F-2$ Find unit fractions of quantities using known division facts (multiplication tables fluency). <br> $\rightarrow$ Fractions of a set of objects(2). <br> $\rightarrow$ Fractions of a set of objects(3). | $\rightarrow$ Compare mass <br> $\rightarrow$ Measure mass (1). $\rightarrow$ Measure mass (2). <br> $\rightarrow$ Compare mass. <br> $\rightarrow$ Add and subtract mass. <br> $\rightarrow$ Compare volume <br> $\rightarrow$ Measure capacity (1). $\rightarrow$ Measure capacity (2). <br> $\rightarrow$ Compare capacity. <br> $\rightarrow$ Add and subtract capacity. <br> $\rightarrow$ Temperature activity $\rightarrow$ Temperature | $\rightarrow$ Pictograms. $\rightarrow$ Bar charts $\rightarrow$ Tables. | $\rightarrow$ Horizontal and vertical. <br> $\rightarrow$ Parallel and perpendicular <br> $\rightarrow$ See previous small steps <br> 3G-1 Recognise right angles as a property of shape <br> or a description of a turn, and identify right angles <br> in 2D shapes presented in different orientations. | $\rightarrow$ See previous small steps 3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. |

