Knypersley First School


## Mathematics coverage EYFS - Year 4

## Mathematics

## 0-3 year olds (Pre -Nursery)

## Typically 0-12 months

- Combine objects like stacking blocks and cups.
- Put objects inside others and take them out again.
- Climb and squeezing selves into different types of spaces.
- Build with a range of resources


## Typically 1 to 2 years

- React to changes of amount in agroup of up to three items
- Counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence.
- Complete inset puzzles.


## Typically 2-3 years

- Take part in finger rhymes with numbers
- Compare amounts, saying 'lots', 'more' or 'same'.
- Count in everyday contexts, sometimes skipping numbers - '1-2-35.'
- Notice patterns and arrange things in patterns.

|  | Mathematics |  |
| :---: | :---: | :---: |
| 3-4 year olds (Nursery) |  |  |
| Autumn - | Spring - | Summer - |
| - Show 'finger numbers' up to 5 . <br> - Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc <br> - Understand position through words alone - for example, "The bag is under the table," - with no pointing. <br> - Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. <br> - Name and recognise some 2D shapes (added to support Spring term not an official statement). | - say one number for each item in order: 1,2,3,4,5. <br> - Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5 <br> - Experiment with their own symbols and marks as well as numerals. <br> - Discuss routes and locations, using words like 'in front of' and 'behind'. <br> - Talk about and explore 2D using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. <br> - Extend and create $A B A B$ patterns stick, leaf, stick, leaf. <br> - Recite numbers past 5 | - Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). <br> - Combine shapes to make new ones - an arch, a bigger triangle etc. <br> - Talk about and explore 3D using informal and using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. <br> - Notice and correct an error in a repeating pattern <br> - Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then'. <br> - Solve real world mathematical problems with numbers up to 5 . <br> - Compare quantities using language: 'more than', 'fewer than' <br> - Describe a familiar route <br> - Fast recognition of up to 3 objects, without having to count them individually ('subitising'). <br> - Make comparisons between objects relating to size, length, weight and capacity |

## Mathematics

## Reception Year *Taken from NCETM Mastering Number

## Autumn

- Counts objects, actions and sounds (up to 5).
- Link numeral with its cardinal number value.
- Subitise (up to 5).
- Understand the 'one more than relationship between consecutive numbers
- Explore composition (within 5)
- Compare sets of objects by matching.
- Select, rotate and manipulate shapes in order to develop spatial reasoning skills
- Compare lengths, weight and capacity
- Continue, copy and compare patterns


## Spring -

- Count beyond ten
- Verbally count beyond 20, recognising the pattern of the counting system.
- Subitise (within and beyond 5)
- Understand the 'one more than/ one less than' relationship between consecutive numbers
- Explore composition of numbers to 10
- Compare numbers
- Atomically recall number bonds for numbers 0-5.
- Understand that two equal groups can be called a double and connect this to finder patterns.
- Sort odd and even numbers according to their shape.
- Compose and decompose shapes so that children recognise a shape canhave other shapes within it, just as numbers can.


## Summer

- Counts objects, actions and sounds
- Compare quantities up to 10 in different contexts, recognising one quantity is greater than, less than orthe same as another. (ELG)
- Have a deep understanding of numbers to 10 , including the composition of each number (ELG)
- Atomically recall number bonds for numbers 0-5 and some to 10
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds up to 10 including double facts (ELG)
- Explore and represent patterns within numbers up to 10 , including evens, odds, double facts and how quantities can be distributed equally. (ELG)


## Number ELG

Have a deep understanding of number to 10 , 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 up to 5 (including subtraction facts) and some number bonds to 10 , including double facts.

## Mastering Number

## Reception Overview

| Term 1 | Term 2 | Term 3 |
| :--- | :--- | :--- |

NCETM
NATIONAL CENTRE for EXCELLENCE
in the TEACHING of MATHEMATICS

- connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers
- hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number
- develop counting skills and knowledge including: that the last number in the count tells us 'how many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds
- compare sets of objects by matching
- begin to develop the language of 'whole' when talking about objects which have parts
- understand that two equal groups can be called a 'double' and connect this to finger patterns
- sort odd and even numbers according to their 'shape'
- continue to develop their understanding of the counting sequence and link cardinality and ordinality through the ‘staircase' pattern
- order numbers and play track games
- join in with verbal counts beyond 20 , hearing the repeated pattern within the counting numbers
- begin to generalise about 'one more than' and 'one less than' numbers within 10
- continue to identify when sets can be subitised and when counting is necessary
- develop conceptual subitising skills including when using a rekenrek


## New

## Reception schemes of learning

Non-statutory curriculum mapping September 2023

## White Rose

## Shape, space and measure

White Rose
M. THS

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |
| - Compare quantities using language: 'more than', 'fewer than', <br> - Understand position through words alone - for example, "The bag is under the table," - with no pointing. <br> - Describe a familiar route. <br> - Discuss routes and locations, using words like 'in front of' and 'behind'. | - Select, rotate and manipulate shapes in order to develop spatial reasoning skills. | - Responds to and uses language of position and direction <br> - Predicts, moves and rotates objects to fit the space or create the shape they would like | - Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints <br> - Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) <br> - May enjoy making simple maps of familiar and imaginative environments, with landmarks |
| Autumn 2, Autumn 4 Spring 3 Summer 5 | Spring 6 Summer 3 | Autumn 4 <br> Spring 6 <br> Summer 3 | Spring 6 Summer 3, Summer 5 |


| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |
| - Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. <br> - Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. <br> - Combine shapes to make new ones - an arch, a bigger triangle, etc. | - Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. | - Chooses items based on their shape which are appropriate for the child's purpose <br> - Responds to both informal language and common shape names <br> - Shows awareness of shape similarities and differences between objects <br> - Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes <br> - Attempts to create arches and enclosures when building, using trial and improvement to select blocks | - Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes. <br> - Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes <br> - Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build. |
| Autumn 4, Autumn 6 Spring 6 | Autumn 6 Spring 6 <br> Summer 3 | Autumn 6 Spring 6 <br> Summer 3 | Autumn 4 Spring 6 Summer 3, Summer 5 |


| Development matters |  | Birth to 5 matters |  |
| :--- | :--- | :--- | :--- |
| $\mathbf{3}$ and 4 year olds | Reception | Range 5 | Range 6 |

## Measure

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |$|$| Range 5 |
| :---: |

Year 1

Yearly overview
The yearly overview provides suggested timings for each block of learning, which can be adapted to suit different term dates or other requirements.

|  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number <br> Place value (within 10) |  |  |  |  | Number <br> Addition and subtraction (within 10) |  |  |  |  |  | 든 흥 응 0 0 0 |
| $\begin{aligned} & \text { 을 } \\ & \text { 흔 } \end{aligned}$ | Number <br> Place <br> (with | value <br> n 20) |  | Number <br> Addition and subtraction <br> (within 20) |  |  | Number <br> Place <br> (with | value <br> n 50) | Measurement <br> Length and height |  | Measurement <br> Mass <br> and volume |  |
| $\begin{aligned} & \stackrel{\rightharpoonup}{\otimes} \\ & \stackrel{y}{\varepsilon} \\ & \tilde{v} \end{aligned}$ | Number Multiplication and division |  |  | Number <br> Fractions |  |  | Number <br> Place value (within 100) |  | Measurement <br> Time |  |  |  |

## Place value

## Year 1 RTP Place value

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 1NPV-1 Count within 100, forwards and backwards, starting with any number. | Autumn 1 | 6 - Count on from any number <br> 8 - Count backwards within 10 |
|  | Spring 1 | 1 - Count within 20 |
|  | Spring 3 | 1 - Count from 20 to 50 <br> 3 - Count by making groups of tens |
|  | Summer 4 | 1 - Count from 50 to 100 |
| 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = | Autumn 1 | 11 - Fewer, more, same <br> 12 - Less than, greater than, equal to <br> 13 - Compare numbers <br> 14 - Order objects and numbers <br> 15 - The number line |
|  | Spring 1 | 8 - The number line to 20 <br> 9 - Use a number line to 20 <br> 11 - Compare numbers to 20 <br> 12 - Order numbers to 20 |
|  | Spring 3 | 6 - The number line to 50 |

# Addition and subtraction 

## Year 1 RTP Number facts

| Ready to progress criteria | Block | Steps |  |  |
| :--- | :--- | :--- | :---: | :---: |
| 1NF-1 Develop fluency in addition and subtraction <br> facts within 10 | Autumn 2 | 5-Number bonds within 10 <br> $6-$ Systematic number bonds within 10 <br> $7-$ Number bonds to 10 |  |  |
|  | Spring 2 | 2-Add ones using number bonds <br> $6-$ Subtract ones using number bonds |  |  |
| 1NF-2 Count forwards and backwards in multiples of <br> 2, 5 and 10, up to 10 multiples, beginning with any <br> multiple, and count forwards and backwards through <br> the odd numbers. | See under Multiplication \& division |  |  |  |

## Year 1 RTP Addition \& subtraction

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. | Autumn Block 2 | 5 - Number bonds within 10 <br> 6 - Systematic number bonds within 10 <br> 7 - Number bonds to 10 |
| 1AS-2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. | Autumn Block 2 | 4 - Fact families - addition facts <br> 8 - Addition - add together <br> 9 - Addition - add more <br> 10 - Addition problems <br> 11 - Find a part <br> 12 - Subtraction - find a part <br> 13 - Fact families - the eight facts <br> 14 - Subtraction - take away/cross out (How many left?) <br> 15 - Subtraction - take away (How many left?) <br> 16 - Subtraction on a number line |
|  | Spring Block 2 | 1 - Add by counting on within 20 <br> 6 - Subtract ones using number bonds <br> 7 - Subtraction - counting back <br> 8-Subtraction - finding the difference <br> 10 Missing number problems |



## Multiplication and division

## Year 1 RTP Number facts

| Ready to progress criteria | Block | Steps |  |
| :--- | :--- | :--- | :---: |
| 1NF-1 Develop fluency in addition and subtraction <br> facts within 10 |  | See under Addition \& subtraction |  |
| 1NF-2 Count forwards and backwards in multiples of <br> 2,5 and 10 , up to 10 multiples, beginning with any <br> multiple, and count forwards and backwards through <br> the odd numbers. | Summer 1 | $1-$ Count in 2s <br> $2-$ Count in 10s <br> $3-$ Count in 5s |  |
|  | Summer 4 | 2-Tens to 100 |  |
|  | Summer 5 | 4-Count in coins |  |

## Geometry

## Year 1 RTP Geometry

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 1G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. | Autumn 3 | 1 - Recognise and name 3-D shapes <br> 2 - Sort 3-D shapes <br> 3 - Recognise and name 2-D shapes <br> 4 - Sort 2-D shapes <br> 5 - Patterns with 2-D and 3-D shapes |
| 1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. | Autumn 3 | 1 - Recognise and name 3-D shapes <br> 2 - Sort 3-D shapes <br> 3 - Recognise and name 2-D shapes <br> 4 - Sort 2-D shapes <br> 5 - Patterns with 2-D and 3-D shapes |

## Small steps

| Step 1 | Sort objects |
| :--- | :--- |
|  |  |
| Step 2 | Count objects |
| Step 3 | Count objects from a larger group |
| Step 4 | Represent objects |
| Step 5 | Recognise numbers as words |
| Step 6 | Count on from any number |
|  |  |
| Step 7 | 1 more |
|  |  |
| Step 8 | Count backwards within 10 |

## Small steps

| Step 9 | 1 less |
| :--- | :--- |
|  |  |
| Step 10 | Compare groups by matching |
| Step 11 | Fewer, more, same |
| Step 12 | Less than, greater than, equal to |
|  |  |
| Step 13 | Compare numbers |
| Step 14 | Order objects and numbers |
|  |  |
| Step 15 | The number line |

## Small steps

| Step 1 | Introduce parts and wholes |
| :--- | :--- |
| Step 2 | Part-whole model |
| Step 3 | Write number sentences |
| Step 4 | Fact families - addition facts |
| Step 5 | Number bonds within 10 |
| Step 6 | Systematic number bonds within 10 |
|  |  |
| Step 7 | Number bonds to 10 |
|  |  |
| Step 8 | Addition - add together |

## Small steps

| Step 9 | Addition - add more |
| :--- | :--- |
|  |  |
| Step 10 | Addition problems |
| Step 11 | Find a part |
| Step 12 | Subtraction - find a part |
|  |  |
| Step 13 | Fact families - the eight facts |
| Step 14 | Subtraction - take away/cross out (How many left?) |
|  |  |
| Step 15 | Take away (How many left?) |

Year 1 | Autumn term | Block 2 - Addition and subtraction

## Small steps

## Small steps

Step 1 Recognise and name 3-D shapes

| Step 2 | Sort 3-D shapes |
| :--- | :--- |
| Step 3 | Recognise and name 2-D shapes |
| Step 4 | Sort 2-D shapes |
| Step 5 | Patterns with 2-D and 3-D shapes |


| Step 1 | Count within 20 |
| :---: | :---: |
| Step 2 | Understand 10 |
| Step 3 | Understand 11, 12 and 13 |
| Step 4 | Understand 14, 15 and 16 |
| Step 5 | Understand 17, 18 and 19 |
| Step 6 | Understand 20 |
| Step 7 | 1 more and 1 less |
| Step 8 | The number line to 20 |

## Small steps

Step 9
Use a number line to 20

| Step 10 | Estimate on a number line to 20 |
| :--- | :--- |
| Step 11 | Compare numbers to 20 |
| Step 12 | Order numbers to 20 |


| Step 1 | Add by counting on within 20 |
| :--- | :--- |
| Step 2 | Add ones using number bonds |
| Step 3 | Find and make number bonds to 20 |
| Step 4 | Doubles |
| Step 5 | Near doubles |
| Step 6 | Subtract ones using number bonds |
|  |  |
| Step 7 | Subtraction - counting back |
|  |  |
| Step 8 | Subtraction - finding the difference |

## Small steps

| Step 1 | Count from 20 to 50 |
| :--- | :--- |
| Step 2 | $20,30,40$ and 50 |
| Step 3 | Count by making groups of tens |
| Step 4 | Groups of tens and ones |
| Step 5 | Partition into tens and ones |
| Step 6 | The number line to 50 |
|  |  |
| Step 7 | Estimate on a number line to 50 |
|  |  |
| Step 8 | 1 more, 1 less |

## Small steps

Step 1 Compare lengths and heights

Measure length using objects

Measure length in centimetres

## Small steps

| Step 1 | Heavier and lighter |
| :--- | :--- |
|  |  |
| Step 2 | Measure mass |
| Step 3 | Compare mass |
| Step 4 | Full and empty |
| Step 5 | Compare volume |
| Step 6 | Measure capacity |

## Small steps

| Step 1 | Count in 2s |
| :--- | :--- |
| Step 2 | Count in 10s |
| Step 3 | Count in 5s |
| Step 4 | Recognise equal groups |
|  |  |
| Step 5 | Add equal groups |
| Step 6 | Make arrays |
|  |  |
| Step 7 | Make doubles |
|  |  |
| Step 8 | Make equal groups - grouping |

## Small steps

Step 1 Recognise a half of an object or a shape

| Step 2 | Find a half of an object or a shape |
| :--- | :--- |
| Step 3 | Recognise a half of a quantity |
| Step 4 | Find a half of a quantity |
| Step 5 | Recognise a quarter of an object or a shape |
| Step 6 | Find a quarter of an object or a shape |
|  |  |
| Step 7 | Recognise a quarter of a quantity |
| Step 8 | Find a quarter of a quantity |

## Small steps

Step 1 Describe turns

| Step 2 | Describe position - left and right |
| :--- | :--- |
| Step 3 | Describe position - forwards and backwards |
| Step 4 | Describe position - above and below |
| Step 5 | Ordinal numbers |

## Small steps

| Step 1 | Count from 50 to 100 |
| :--- | :--- |
| Step 2 | Tens to 100 |
| Step 3 | Partition into tens and ones |
| Step 4 | The number line to 100 |
| Step 5 | 1 more, 1 less |
| Step 6 | Compare numbers with the same number of tens |
|  |  |
| Step 7 | Compare any two numbers |

## Small steps

| Step 1 | Unitising |
| :--- | :--- |
| Step 2 | Recognise coins |
| Step 3 | Recognise notes |
|  |  |
| Step 4 | Count in coins |

## Small steps

| Step 1 | Before and after |
| :--- | :--- |
| Step 2 | Days of the week |
| Step 3 | Months of the year |
| Step 4 | Hours, minutes and seconds |
| Step 5 | Tell the time to the hour |
|  |  |
| Step 6 | Tell the time to the half hour |

## Year 2

Yearly overview
The yearly overview provides suggested timings for each block of learning, which can be adapted to suit different term dates or other requirements.


## Place value

## Year 2 RTP Place value

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 2NPV-1 Recognise the place value of each digit in <br> two-digit numbers, and compose and decompose <br> two-digit numbers using standard and non-standard <br> partitioning. | Autumn 1 | 3-Recognise tens and ones <br> 4-Use a place value chart <br> $5-$ - Partition numbers to 100 <br> $7-$ Flexibly partition numbers to 100 <br> $8-$ Write numbers in expanded form |
| 2NPV-2 Reason about the location of any two-digit <br> number in the linear number system, including <br> identifying the previous and next multiple of 10 | Autumn 1 | $9-10$ s on the number line to 100 <br> $10-10$ s and 1s on the number line to 100 <br> $11-$ Estimate numbers on the number line |

# Addition and subtraction 

## Year 2 RTP Number facts

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 2NF-1 Secure fluency in addition and subtraction <br> facts within 10, through continued practice. | Autumn Block 2 | $1-$ Bonds to 10 <br> $6-$ Add by making 10 <br> $8-$ Add to the ent 10 <br> $11-$ Subtract from a 10 10 |

## Year 2 RTP Addition \& subtraction

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 2AS-1 Add and subtract across 10 | Autumn 2 | $9-$ Add across a 10 <br> $10-$ Subtract across a 10 <br> $11-$ Subtract from a 10 <br> $12-$ Subtract 1-digit number from a 2-digit number (across a 10) |
| 2AS-2 Recognise the subtraction structure of <br> 'difference' and answer questions of the form, "How <br> many more...?". | Spring 1 | 9 - Find change |
| 2AS-3 Add and subtract within 100 by applying <br> related one-digit addition and subtraction facts: add <br> and subtract only ones or only tens to/from a two- <br> digit number. | Autumn 2 |  |

## Multiplication and division

## Year 2 RTP Multiplication \& division

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 2MD-1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2,5 and 10 multiplication tables. | Spring 2 | 4 - Introduce the multiplication symbol <br> 5 - Multiplication sentences <br> 9 - The 2 times-table <br> 13 - The 10 times-table <br> 15 - The 5 times-table <br> 17 - The 5 and 10 times-tables |
|  | Spring 4 | 8 - Four operations with volume and capacity |
|  | Summer 2 | 5 - Tell the time to 5 minutes <br> 6 - Minutes in an hour |
| 2MD-2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division). | Spring 2 | 2 - Make equal groups <br> 7 - Make equal groups - grouping <br> 8 - Make equal groups - sharing <br> 10 - Divide by 2 <br> 14 - Divide by 10 <br> 16 - Divide by 5 |

## Geometry

## Year 2 RTP Geometry

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 2G-1 Recognise common 2D and 3D shapes <br> presented in different orientations, and know that <br> rectangles, triangles, cuboids and pyramids are not <br> always similar to one another. | Autumn 3 | 1- Recognise 2-D and 3-D shapes <br> 2-Count sides on 2-D shapes <br> 3-Count vertices on 2-D shapes |
|  |  | 7- Sort 2-D shapes <br> 8-Count faces on 3-D shapes <br> 9-Count edges on 3-D shapes |
|  |  | $10-$ Count vertices on 3-D shapes |
| 11-Sort 3-D shapes |  |  |

## Small steps

| Step 1 | Numbers to 20 |
| :--- | :--- |
|  |  |
| Step 2 | Count objects to 100 by making 10s |
| Step 3 | Recognise tens and ones |
| Step 4 | Use a place value chart |
| Step 5 | Partition numbers to 100 |
| Step 6 | Write numbers to 100 in words |
|  |  |
| Step 7 | Flexibly partition numbers to 100 |
|  |  |
| Step 8 | Write numbers to 100 in expanded form |

## Small steps

| Step 9 | 10s on the number line to 100 |
| :--- | :--- |
| Step 10 | 10s and 1s on the number line to 100 |
| Step 11 | Estimate numbers on a number line |
| Step 12 | Compare objects |
| Step 13 | Compare numbers |
| Step 14 | Order objects and numbers |
|  |  |
| Step 15 | Count in 2 s , 5s and 10s |
| Step 16 | Count in 3s |

## Small steps

| Step 1 | Bonds to 10 |
| :--- | :--- |
|  |  |
| Step 2 | Fact families - addition and subtraction bonds within 20 |
| Step 3 | Related facts |
| Step 4 | Bonds to 100 (tens) |
|  |  |
| Step 5 | Add and subtract 1s |
| Step 6 | Add by making 10 |
|  |  |
| Step 7 | Add three 1-digit numbers |
|  |  |
| Step 8 | Add to the next 10 |

## Small steps

| Step 9 | Add across a 10 |
| :--- | :--- |
|  |  |
| Step 10 | Subtract across 10 |
| Step 11 | Subtract from a 10 |
| Step 12 | Subtract a 1-digit number from a 2-digit number (across a 10) |
|  |  |
| Step 13 | 10 more, 10 less |
| Step 14 | Add and subtract 10s |
|  |  |
| Step 15 | Add two 2-digit numbers (not across a 10) |
|  |  |
| Step 16 | Add two 2-digit numbers (across a 10) |

## Small steps

Step 17 Subtract two 2-digit numbers (not across a 10)

| Step 18 | Subtract two 2-digit numbers (across a 10) |
| :--- | :--- |
| Step 19 |  |
|  |  |
| Step 20 | Compare number sentences |

Step 21 Missing number problems

## Small steps

| Step 1 | Recognise 2-D and 3-D shapes |
| :--- | :--- |
| Step 2 | Count sides on 2-D shapes |
| Step 3 | Count vertices on 2-D shapes |
| Step 4 | Draw 2-D shapes |
| Step 5 | Lines of symmetry on shapes |
| Step 6 | Use lines of symmetry to complete shapes |
| Step 7 | Sort 2-D shapes |
|  |  |
| Step 8 | Count faces on 3-D shapes |

## Small steps

Step 9 Count edges on 3-D shapes

| Step 10 | Count vertices on 3-D shapes |
| :--- | :--- |
| Step 11 | Sort 3-D shapes |
| Step 12 | Make patterns with 2-D and 3-D shapes |

## Small steps

| Step 1 | Count money - pence |
| :--- | :--- |
| Step 2 | Count money - pounds (notes and coins) |
| Step 3 | Count money - pounds and pence |
| Step 4 | Choose notes and coins |
| Step 5 | Make the same amount |
| Step 6 | Compare amounts of money |
| Step 7 | Calculate with money |
|  |  |
| Step 8 | Make a pound |

## Small steps

Step 9 Find change

Step 10 Two-step problems

## Small steps

| Step 1 | Recognise equal groups |
| :--- | :--- |
| Step 2 | Make equal groups |
| Step 3 | Add equal groups |
| Step 4 | Introduce the multiplication symbol |
| Step 5 | Multiplication sentences |
|  |  |
| Step 6 | Use arrays |
|  |  |
| Step 7 | Make equal groups - grouping |
|  |  |
| Step 8 | Make equal groups - sharing |

## Small steps

Step 9
The 2 times-table


Step 13 The 10 times-table

| Step 14 | Divide by 10 |
| :--- | :--- |
| Step 15 | The 5 times-table |
|  |  |
| Step 16 | Divide by 5 |

## Small steps

Step 1 Measure in centimetres

| Step 2 | Measure in metres |
| :--- | :--- |
| Step 3 | Compare lengths and heights |
| Step 4 | Order lengths and heights |
| Step 5 | Four operations with lengths and heights |


| Step 1 | Compare mass |
| :--- | :--- |
|  |  |
| Step 2 | Measure in grams |
| Step 3 | Measure in kilograms |
| Step 4 | Four operations with mass |
| Step 5 | Compare volume and capacity |
| Step 6 | Measure in millilitres |
|  |  |
| Step 7 | Measure in litres |
|  |  |
| Step 8 | Four operations with volume and capacity |

## Small steps

| Step 1 | Introduction to parts and whole |
| :--- | :--- |
| Step 2 | Equal and unequal parts |
| Step 3 | Recognise a half |
| Step 4 | Find a half |
| Step 5 | Recognise a quarter |
| Step 6 | Find a quarter |
|  |  |
| Step 7 | Recognise a third |
|  |  |
| Step 8 | Find a third |

## Small steps

| Step 9 | Find the whole |
| :--- | :--- |
|  |  |
| Step 10 | Unit fractions |
| Step 11 | Non-unit fractions |
| Step 12 | Recognise the equivalence of a half and two-quarters |
|  |  |
| Step 13 | Recognise three-quarters |
| Step 14 | Find three-quarters |

## Small steps

| Step 1 | O'clock and half past |
| :--- | :--- |
| Step 2 | Quarter past and quarter to |
| Step 3 | Tell the time past the hour |
| Step 4 | Tell the time to the hour |
|  |  |
| Step 5 | Tell the time to 5 minutes |
|  |  |
| Step 6 | Minutes in an hour |

## Small steps

| Step 1 | Make tally charts |
| :--- | :--- |
|  |  |
| Step 2 | Tables |
| Step 3 | Block diagrams |
| Step 4 | Draw pictograms (1-1) |
|  |  |
| Step 5 | Interpret pictograms (1-1) |
| Step 6 | Draw pictograms (2,5 and 10) |
|  |  |
| Step 7 | Interpret pictograms (2,5 and 10) |

## Small steps

| Step 1 | Language of position |
| :--- | :--- |
| Step 2 | Describe movement |
| Step 3 | Describe turns |
|  |  |
| Step 4 | Describe movement and turns |
|  |  |
| Step 5 | Shape patterns with turns |

## Year 3

Yearly overview
The yearly overview provides suggested timings for each block of learning, which can be adapted to suit different term dates or other requirements.

|  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 鲀 | Number <br> Place | value |  | Numbe <br> Addi | on and | subtr | ction |  | Number Mult and | plicatio <br> division |  |  |
| $\begin{aligned} & \text { 을 } \\ & \text { ì } \end{aligned}$ | Number <br> Multi and d | plicatio <br> division |  | Measur <br> Leng perim | ment <br> h and eter |  | Number <br> Fract | ons A |  | Measur <br> Mass and | ment <br> apacity |  |
|  | Number <br> Fract | ons B | Measur <br> Mon |  | Measur <br> Time |  |  | Geome <br> Shap |  | Stati | tics |  |

## Place value

## Year 3 RTP Place value

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 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 | Autumn 1 | 4 - Hundreds |
|  | Autumn 2 | 10 - Make connections |
|  | Autumn 3 | 4 - Multiples of 5 and 10 |
|  | Spring 2 | 5 - Equivalent lengths (metres and centimetres) <br> 6 - Equivalent lengths (centimetres and millimetres) |
| 3NPV-2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and nonstandard partitioning. | Autumn 1 | 5 - Represent numbers to 1,000 <br> 6 - Partition numbers to 1,000 <br> 7 - Flexible partitioning of numbers to 1,000 <br> 8 - Hundreds, tens and ones |
| 3NPV-3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10 | Autumn 1 | 9 - Find 1,10 or 100 more or less <br> 10 - Number line to 1,000 <br> 11 - Estimate on a number line to 1,000 <br> 12 - Compare numbers to 1,000 <br> 13 - Order numbers to 1,000 |
| 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. | Autumn 1 | 10 - Number line to 1,000 <br> 11 - Estimate on a number line to 1,000 <br> 14 - Count in 50s |
|  | Spring 2 | 1 - Measure in metres and centimetres <br> 2 - Measure in millimetres <br> 3 - Measure in centimetres and millimetres |

# Addition and subtraction 

## Year 3 RTP Number facts

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. | Autumn Block 2 | 6 - Add 1 s across a 10 <br> 7 - Add 10s across a 100 <br> 8 - Subtract 1 s across a 10 <br> 9 - Subtract 1 s across a 100 <br> 13 - Add two numbers (across a 10) <br> 14 - Add two numbers (across a 100) <br> 15 - Subtract two numbers (across a 10) <br> 16 - Subtract two numbers (across a 100) |
| 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. |  | See under Multiplication \& division |
| 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10 ). |  | See under Multiplication \& division |

## Year 3 RTP Addition \& subtraction

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 3AS-1 Calculate complements to 100 | Autumn Block 2 | 19 - Complements to 100 |
|  | Summer 2 | 4 - Subtract money <br> 5 - Find change |
| 3AS-2 Add and subtract up to three-digit numbers using columnar methods. | Autumn Block 2 | 11 - Add two numbers (no exchange) <br> 12 - Subtract two numbers (no exchange) <br> 13 - Add two numbers (across a 10) <br> 14 - Add two numbers (across a 100) <br> 15 - Subtract two numbers (across a 10) <br> 16 - Subtract two numbers (across a 100) <br> 17 - Add 2-digit and 3-digit numbers <br> 18 - Subtract a 2-digit number from a 3-digit number |
| 3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. <br> Understand and use the commutative property of addition, and understand the related property for subtraction. | Autumn Block 2 | 21 - Inverse operations <br> 22 - Make decisions |
|  | Summer 2 | 3 - Add money <br> 4 - Subtract money <br> 5 - Find change |

## Multiplication and division

## Year 3 RTP Number facts

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 3NF-1 Secure fluency in addition and subtraction <br> facts that bridge 10, through continued practice. | See under Addition \& subtraction |  |

## Year 3 RTP Multiplication \& division

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 3MD-1 Apply known multiplication and division facts <br> to solve contextual problems with different <br> structures, including quotitive and partitive division. | Autumn 3 | All 15 steps in this block relate to this criterion |
|  | Spring 1 | All 11 steps in this block relate to this criterion |

## Year 3 RTP Fractions

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 3F-1 Interpret and write proper fractions to <br> represent 1 or several parts of a whole that is <br> divided into equal parts. | Spring 3 | 1-Understand the denominators of unit fractions <br> $3-$ Understand the numerators of non-unit fractions <br> $4-$ Understand the whole |
| 3F-2 Find unit fractions of quantities using known <br> division facts (multiplication tables fluency). | Summer 1 | 4 - Unit fractions of a set of objects |
| 3F-3 Reason about the location of any fraction within <br> 1 in the linear number system. | Spring 3 | 2-Compare and order unit fractions <br> $5-$ Compare and order non-unit fractions |
| 7-Fractions on a number line <br> $8-$ Count in fractions on a number line |  |  |
| 3F-4 Add and subtract fractions with the same <br> denominator, within 1 | Summer 1 | $1-$ Add fractions <br> $2-$ Subtract fractions |

## Geometry

## Year 3 RTP Geometry

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 3G-1 Recognise right angles as a property of shape or <br> a description of a turn, and identify right angles in 2D <br> shapes presented in different orientations. | Summer 4 | 2-Right angles |
| 3G-2 Draw polygons by joining marked points, and <br> identify parallel and perpendicular sides. | Summer 4 | 6 - Parallel and perpendicular <br> $8-$ Draw polygons |

## Small steps

| Step 1 | Represent numbers to 100 |
| :--- | :--- |
| Step 2 | Partition numbers to 100 |
| Step 3 | Number line to 100 |
| Step 4 | Hundreds |
| Step 5 | Represent numbers to 1,000 |
| Step 6 | Partition numbers to 1,000 |
| Step 7 | Flexible partitioning of numbers to 1,000 |
|  |  |
| Step 8 | Hundreds, tens and ones |

## Small steps

Step 9 Find 1, 10 or 100 more or less

| Step 10 | Number line to 1,000 |
| :--- | :--- |
|  |  |
| Step 11 | Estimate on a number line to 1,000 |
| Step 12 | Compare numbers to 1,000 |
| Step 13 | Order numbers to 1,000 |
| Step 14 | Count in 50s |

## Small steps

| Step 1 | Apply number bonds within 10 |
| :--- | :--- |
| Step 2 | Add and subtract 1s |
| Step 3 | Add and subtract 10s |
| Step 4 | Add and subtract 100s |
| Step 5 | Spot the pattern |
| Step 6 | Add 1s across a 10 |
|  |  |
| Step 7 | Add 10s across a 100 |
| Step 8 | Subtract 1s across a10 |

## Small steps

| Step 9 | Subtract 10s across a 100 |
| :--- | :--- |
|  |  |
| Step 10 | Make connections |
| Step 11 | Add two numbers (no exchange) |
| Step 12 | Subtract two numbers (no exchange) |
| Step 13 | Add two numbers (across a 10) |
|  |  |
| Step 14 | Add two numbers (across a 100) |
|  |  |
| Step 15 | Subtract two numbers (across a 10) |
| Step 16 | Subtract two numbers (across a 100) |

## Small steps

Step 17 Add 2-digit and 3-digit numbers

| Step 18 | Subtract a 2-digit number from a 3-digit number |
| :--- | :--- |
|  |  |
| Step 19 | Complements to 100 |
| Step 20 | Estimate answers |
| Step 21 | Inverse operations |
| Step 22 | Make decisions |

## Small steps

| Step 1 | Multiplication - equal groups |
| :--- | :--- |
| Step 2 | Use arrays |
| Step 3 | Multiples of 2 |
| Step 4 | Multiples of 5 and 10 |
| Step 5 | Sharing and grouping |
| Step 6 | Multiply by 3 |
| Step 7 | Divide by 3 |
|  |  |
| Step 8 | The 3 times-table |

## Small steps

| Step 9 | Multiply by 4 |
| :--- | :--- |
|  |  |
| Step 10 | Divide by 4 |
|  |  |
| Step 11 | The 4 times-table |
| Step 12 | Multiply by 8 |
|  |  |
| Step 13 | Divide by 8 |
| Step 14 | The 8 times-table |
|  |  |
| Step 15 | The 2, 4 and 8 times-tables |


| Step 1 | Multiples of 10 |
| :--- | :--- |
| Step 2 | Related calculations |
| Step 3 | Reasoning about multiplication |
| Step 4 | Multiply a 2-digit number by a 1-digit number - no exchange |
| Step 5 | Multiply a 2-digit number by a 1-digit number - with exchange |
| Step 6 | Link multiplication and division |
|  |  |
| Step 7 | Divide a 2-digit number by a 1-digit number - no exchange |

## Small steps

Step 10 Scaling
Step 11 How many ways?

## Small steps

| Step 1 | Measure in metres and centimetres |
| :--- | :--- |
| Step 2 | Measure in millimetres |
| Step 3 | Measure in centimetres and millimetres |
| Step 4 | Metres, centimetres and millimetres |
| Step 5 | Equivalent lengths (metres and centimetres) |
|  |  |
| Step 6 | Equivalent lengths (centimetres and millimetres) |
|  |  |
| Step 7 | Compare lengths |
|  |  |
| Step 8 | Add lengths |

## Small steps

Step 9 Subtract lengths

| Step 10 | What is perimeter? |
| :--- | :--- |
| Step 11 | Measure perimeter |
|  |  |
| Step 12 | Calculate perimeter |

## Small steps

Step 1 Understand the denominators of unit fractions


## Small steps

## Small steps

| Step 1 | Use scales |
| :--- | :--- |
|  |  |
| Step 2 | Measure mass in grams |
| Step 3 | Measure mass in kilograms and grams |
| Step 4 | Equivalent masses (kilograms and grams) |
| Step 5 | Compare mass |
| Step 6 | Add and subtract mass |
| Step 7 | Measure capacity and volume in millilitres |
|  |  |
| Step 8 | Measure capacity and volume in litres and millilitres |

## Small steps

Step 9
Equivalent capacities and volumes (litres and millilitres)

| Step 10 Compare capacity and volume |
| :--- |
| Step 11 Add and subtract capacity and volume |

## Small steps

| Step 1 | Add fractions |
| :--- | :--- |
|  |  |
| Step 2 | Subtract fractions |
| Step 3 | Partition the whole |
| Step 4 | Unit fractions of a set of objects |
|  |  |
| Step 5 | Non-unit fractions of a set of objects |
| Step 6 | Reasoning with fractions of an amount |

## Small steps

| Step 1 | Pounds and pence |
| :--- | :--- |
| Step 2 | Convert pounds and pence |
| Step 3 | Add money |
|  |  |
| Step 4 | Subtract money |
|  |  |
| Step 5 | Find change |

## Small steps

Step 1 Roman numerals to 12


## Small steps

Step $9 \quad$ Hours and minutes - use durations

| Step 10 | Minutes and seconds |
| :--- | :--- |
| Step 11 | Units of time |
| Step 12 | Solve problems with time |

## Small steps

| Step 1 | Turns and angles |
| :--- | :--- |
| Step 2 | Right angles |
| Step 3 | Compare angles |
| Step 4 | Measure and draw accurately |
| Step 5 | Horizontal and vertical |
| Step 6 | Parallel and perpendicular |
|  |  |
| Step 7 | Recognise and describe 2-D shapes |
|  |  |
| Step 8 | Draw polygons |

## Small steps

Step 9
Recognise and describe 3-D shapes

## Small steps

| Step 1 | Interpret pictograms |
| :--- | :--- |
|  |  |
| Step 2 | Draw pictograms |
| Step 3 | Interpret bar charts |
| Step 4 | Draw bar charts |
|  |  |
| Step 5 | Collect and represent data |
|  |  |
| Step 6 | Two-way tables |

Year 4

Yearly overview
The yearly overview provides suggested timings for each block of learning, which can be adapted to suit different term dates or other requirements.


## Place value

## Year 4 RTP Place value

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100 ; apply this to identify and work out how many 100s there are in other four-digit multiples of 100 | Autumn 1 | 4 - Thousands |
|  | Spring 1 | 3 - Multiply by 10 <br> 4 - Multiply by 100 <br> 5 - Divide by 10 <br> 6 - Divide by 100 |
| 4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. | Autumn 1 | 5 - Represent numbers to 10,000 <br> 6 - Partition numbers to 10,000 <br> 7 - Flexible partitioning of numbers to 10,000 |
| 4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100 , and rounding to the nearest of each. | Autumn 1 | 8 - Find 1, 10, 100, 1,000 more or less <br> 9 - Number line to 10,000 <br> 10 - Estimate on a number line to 10,000 <br> 11 - Compare numbers to 10,000 <br> 12 - Order numbers to 10,000 <br> 14 - Round to the nearest 10 <br> 15 - Round to the nearest 100 <br> 16 - Round to the nearest 1,000 <br> 17 - Round to the nearest 10,000 |
| 4NPV-4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with $2,4,5$ and 10 equal parts. | Autumn 1 | 9 - Number line to 10,000 <br> 10 - Estimate on a number line to 10,000 |

## Multiplication and division

## Year 4 RTP Number facts

| Ready to progress criteria | Block | Steps |
| :---: | :---: | :---: |
| 4NF-1 Recall multiplication and division facts up to $12 \times 12$ and recognise products in multiplication tables as multiples of the corresponding number. | Autumn 4 | All 13 steps in this block relate to this criterion |
|  | Spring 1 | 1 - Factor pairs <br> 2 - Use factor pairs <br> 7 - Related facts - multiplication and division <br> 8 - Informal written methods for multiplication <br> 9 - Multiply a 2-digit number by a 1-digit number <br> 10 - Multiply a 3-digit number by a 1-digit number |
| 4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. | Autumn 4 | All 13 steps in this block relate to this criterion |
|  | Spring 1 | 11 - Divide a 2-digit number by a 1-digit number (1) <br> 12 - Divide a 2-digit number by a 1-digit number (2) <br> 13 - Divide a 3-digit number by a 1-digit number |
| 4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). | Spring 1 | $\begin{aligned} & 4 \text { - Multiply by } 100 \\ & 6 \text { - Divide by } 100 \end{aligned}$ |
|  | Spring 4 | 10 - Divide a 1- or 2-digit number by 100 |

## Year 4 RTP Multiplication \& division

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 4MD-1 Multiply and divide whole numbers by 10 and <br> 100 (keeping to whole number quotients); <br> understand this as equivalent to making a number <br> 10 or 100 times the size. | Spring 1 | $3-$ Multiply by 10 <br> $4-$ Multiply by 100 <br> $5-$ Divide by 10 <br> 6 - Divide by 100 |
| 4MD-2 Manipulate multiplication and division <br> equations, and understand and apply the <br> commutative property of multiplication. | Autumn 4 | All 13 steps in this block relate to this criterion |
| 4MD-3 Understand and apply the distributive <br> property of multiplication. | Spring 1 | $8-$ Informal written methods for multiplication <br> $9-$ Multiply a 2-digit number by a 1-digit number <br> $10-$ Multiply a 3-digit number by a 1-digit number |

## Year 4 RTP Fractions

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 4F-1 Reason about the location of mixed numbers in <br> the linear number system. | Spring 3 | 4 - Number lines with mixed numbers <br> $5-$ Compare and order mixed numbers |
| 4F-2 Convert mixed numbers to improper fractions <br> and vice versa. | Spring 3 | 7-Convert mixed numbers to improper fractions <br> $8-$ Convert improper fractions to mixed numbers |
| 4F-3 Add and subtract improper and mixed fractions <br> with the same denominator, including bridging <br> whole numbers. | Spring 3 | 12 - Add fractions and mixed numbers <br> $14-$ Subtract from whole amounts |

## Geometry

## Year 4 RTP Geometry

| Ready to progress criteria | Block | Steps |
| :--- | :--- | :--- |
| 4G-1 Draw polygons, specified by coordinates in the <br> first quadrant, and translate within the first <br> quadrant. | Summer 6 | 3-Draw 2-D shapes on a grid <br> $4-$ Translate on a grid |
| 4G-2 Identify regular polygons, including equilateral <br> triangles and squares, as those in which the side- <br> lengths are equal and the angles are equal. Find the <br> perimeter of regular and irregular polygons. | Spring 2 | 8-Perimeter of regular polygons <br> $9-$ Perimeter of polygons |

## Small steps

| Step 1 | Represent numbers to 1,000 |
| :--- | :--- |
| Step 2 | Partition numbers to 1,000 |
| Step 3 | Number line to 1,000 |
| Step 4 | Thousands |
| Step 5 | Represent numbers to 10,000 |
| Step 6 | Partition numbers to 10,000 |
| Step 7 | Flexible partitioning of numbers to 10,000 |
|  |  |
| Step 8 | Find 1, 10, 100, 1,000 more or less |

## Small steps

| Step 9 | Number line to 10,000 |
| :--- | :--- |
|  | Estimate on a number line to 10,000 |
| Step 11 | Compare numbers to 10,000 |
| Step 12 | Order numbers to 10,000 |
| Step 13 | Roman numerals |
|  |  |
| Step 14 | Round to the nearest 10 |
|  |  |
| Step 15 | Round to the nearest 100 |
|  |  |
| Step 16 | Round to the nearest 1,000 |

## Small steps

Step 1 Add and subtract $1 \mathrm{~s}, 10 \mathrm{~s}, 100 \mathrm{~s}$ and $1,000 \mathrm{~s}$

| Step 2 | Add up to two 4-digit numbers - no exchange |
| :--- | :--- |
| Step 3 | Add two 4-digit numbers - one exchange |
| Step 4 | Add two 4-digit numbers - more than one exchange |
| Step 5 | Subtract two 4-digit numbers - no exchange |
| Step 6 | Subtract two 4-digit numbers - one exchange |
|  |  |
| Step 7 | Subtract two 4-digit numbers - more than one exchange |

## Small steps

Step 9 Estimate answers

Step 10 Checking strategies

## Small steps

| Step 1 | What is area? |
| :--- | :--- |
| Step 2 | Count squares |
| Step 3 | Make shapes |
| Step 4 | Compare areas |


| Step 1 | Multiples of 3 |
| :--- | :--- |
| Step 2 | Multiply and divide by 6 |
| Step 3 | 6 times-table and division facts |
| Step 4 | Multiply and divide by 9 |
| Step 5 | 9 times-table and division facts |
| Step 6 | The 3, 6 and 9 times-tables |
| Step 7 | Multiply and divide by 7 |
|  |  |
| Step 8 | 7 times-table and division facts |

## Small steps

Step $9 \quad 11$ times-table and division facts
$\square$

Step 11 Multiply by 1 and 0
Step 12 Divide a number by 1 and itself

## Small steps

| Step 1 | Factor pairs |
| :--- | :--- |
|  |  |
| Step 2 | Use factor pairs |
| Step 3 | Multiply by 10 |
| Step 4 | Multiply by 100 |
| Step 5 | Divide by 10 |
| Step 6 | Divide by 100 |
|  |  |
| Step 7 | Related facts - multiplication and division |
|  |  |
| Step 8 | Informal written methods for multiplication |

## Small steps

Step 9 Multiply a 2-digit number by a 1-digit number


Step 11 Divide a 2-digit number by a 1-digit number (1)

Step 12 Divide a 2-digit number by a 1-digit number (2)

Step 13 Divide a 3-digit number by a 1-digit number

Step 14 Correspondence problems

Step 15 Efficient multiplication

## Small steps

Step 1 Measure in kilometres and metres

Step 2 Equivalent lengths (kilometres and metres)

Step 3 Perimeter on a grid

Step 4 Perimeter of a rectangle

Step 5 Perimeter of rectilinear shapes

Step 6 Find missing lengths in rectilinear shapes

Step 7 Calculate perimeter of rectilinear shapes

Perimeter of regular polygons

## Small steps

Step 9 Perimeter of polygons

| Step 1 | Understand the whole |
| :--- | :--- |
| Step 2 | Count beyond 1 |
| Step 3 | Partition a mixed number |
| Step 4 | Number lines with mixed numbers |
| Step 5 | Compare and order mixed numbers |
| Step 6 | Understand improper fractions |
| Step 7 | Convert mixed numbers to improper fractions |

## Small steps

Step 9 Equivalent fractions on a number line

| Step 10 | Equivalent fraction families |
| :--- | :--- |
| Step 11 | Add two or more fractions |
| Step 12 | Add fractions and mixed numbers |
| Step 13 | Subtract two fractions |
| Step 14 | Subtract from whole amounts |

## Small steps

| Step 1 | Tenths as fractions |
| :--- | :--- |
|  |  |
| Step 2 | Tenths as decimals |
| Step 3 | Tenths on a place value chart |
| Step 4 | Tenths on a number line |
| Step 5 | Divide a 1-digit number by 10 |
| Step 6 | Divide a 2-digit number by 10 |
|  |  |
| Step 7 | Hundredths as fractions |
|  |  |
| Step 8 | Hundredths as decimals |

## Small steps

## Small steps

| Step 1 | Make a whole with tenths |
| :--- | :--- |
| Step 2 | Make a whole with hundredths |
| Step 3 | Partition decimals |
| Step 4 | Flexibly partition decimals |
| Step 5 | Compare decimals |
| Step 6 | Order decimals |
|  |  |
| Step 7 | Round to the nearest whole number |
| Step 8 | Halves and quarters as decimals |

## Small steps

Step 1 Write money using decimals

| Step 2 | Convert between pounds and pence |
| :--- | :--- |
| Step 3 | Compare amounts of money |
| Step 4 | Estimate with money |
| Step 5 | Calculate with money |
| Step 6 | Solve problems with money |

## Small steps

Step 1 Years, months, weeks and days

| Step 2 | Hours, minutes and seconds |
| :--- | :--- |
| Step 3 | Convert between analogue and digital times |
| Step 4 | Convert to the 24-hour clock |
| Step 5 | Convert from the 24 -hour clock |

## Small steps

| Step 1 | Understand angles as turns |
| :--- | :--- |
| Step 2 | Identify angles |
| Step 3 | Compare and order angles |
| Step 4 | Triangles |
| Step 5 | Quadrilaterals |
| Step 6 | Polygons |
|  |  |
| Step 7 | Lines of symmetry |
| Step 8 | Complete a symmetric figure |

## Small steps

## Step 1 Interpret charts

| Step 2 | Comparison, sum and difference |
| :--- | :--- |
|  |  |
| Step 3 | Interpret line graphs |
|  |  |
| Step 4 | Draw line graphs |

## Small steps

Step 1 Describe position using coordinates

Plot coordinates

Draw 2-D shapes on a grid

Translate on a grid

Describe translation on a grid

