| $\begin{aligned} & \frac{c}{E} \\ & \frac{2}{z} \\ & \frac{2}{z} \end{aligned}$ | Number <br> Place value (wi |  | Number <br> Addition and subtraction (within 10) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 이 } \\ & \text { 듬 } \end{aligned}$ | Number <br> Place value (within 20) | Number <br> Addition and subtraction (within 20) |  | Number <br> Place value (within 50) | Measurement <br> Length <br> and height | Measurement <br> Mass <br> and volume |
| $\begin{aligned} & \stackrel{\rightharpoonup}{⿺} \\ & \stackrel{y}{E} \\ & \stackrel{\rightharpoonup}{E} \end{aligned}$ | Number <br> Multiplication and division | Number <br> Fractions |  | Number <br> Place value (within 100) |  | ment |


| White Rose Steps |  |  |
| :---: | :---: | :---: |
| Number: Place Value (within 10) | Can you... | National Curriculum Objectives |
| Step 1: Sort objects | Can you sort objects? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Step 2: Count objects | Can you count objects? | - Count to and across 100 , forwards and backwards, beginning with zero or 1 , or from any given number <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Step 3: Count objects from a larger group | Can you count objects from a larger group? |  |
| Step 4: Represent objects | Can you represent objects? |  |
| Step 5: Recognise numbers as words | Can you recognise numbers as words? |  |
| Step 6: Count on from any number | Can you count on from any number? |  |
| Step 7: 1 more | Can you find one more? |  |
| Step 8: Count backwards within 10 | Can you count backwards within 10? |  |
| Step 9:1 1 less | Can you find one less? |  |
| Step 10: Compare group by matching | Can you compare groups by matching? |  |
| Step 11: Fewer, more, same | Can you compare numbers of objects using the words, fewer, more and same? |  |
| Step 12: Less than, greater than, equal to | Can you compare numbers using the words and symbols for less than, greater than or equal to? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Step 13: Compare numbers | Can you compare numbers? | - Count to and across 100, forwards and backwards, beginning with zero or 1 , or from any given number <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Step 14: Order objects and numbers | Can you order objects and numbers? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least <br> - Compare numbers using $<,>$ and $=$ signs <br> - Read and write numbers from 1 to 20 in numerals and words |
| Step 15:The number line | Can you use a number line to count, order and compare numbers? | - Count to and across 100, forwards and backwards, beginning with zero or 1 , or from any given number <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |

## Number: Addition and Subtraction (within 10)

| Step 1: Introduce parts and whole | Can you recognise parts and wholes? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer) |
| :---: | :---: | :---: |
| Step 2: Part-whole model | Can you explore the part-whole model? |  |
| Step 3: Write number sentences | Can you use the addition symbol in a number sentence? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer) <br> - Read, write and interpret mathematical statements involving addition ( + ), subtraction ( $(-)$ and equals $(=)$ signs |
| Step 4: Fact families - addition facts | Can you explore addition fact families? |  |
| Step 5: Number bonds within 10 | Can you explore number bonds to 10? |  |
| Step 6: Systematic number bonds within 10 | Can you identify number bonds within 10? | - Read, write and interpret mathematical statements involving addition ( + ), subtraction ( - ) and equals ( $=$ ) signs <br> - Represent and use number bonds and related subtraction facts within 20 <br> - Add and subtract 1 -digit and 2-digit numbers to 20 , including zero |
| Step 7: Number bonds to 10 | Can you identify all number bonds to 10? |  |
| Step 8: Addition-add together | Can you add numbers together? |  |
| Step 9: Addition-add more | Can you explore addition by adding more? |  |
| Step 10: Addition problems | Can you solve addition problems? |  |
| Step 11: Find a part | Can you use your number bonds to find a part? |  |
| Step 12: Subtraction - find a part | Can you find a part by subtracting? |  |
| Step 13: Fact families - the eight facts | Can you explore the eight fact families? |  |
| Step 14: Subtraction - take away/cross out (How many left?) | Can you subtract by taking away? |  |
| Step 15: Subtraction - take (How many left?) | Can you record subtraction in a number sentence? |  |
| Step 16: Subtraction on a number line | Can you subtract using a number line? |  |
| Step 17: Add or subtract 1 or 2 | Can you add or subtract 1 or 2? |  |
| Geometry: Shape |  |  |
| Step 1: Recognise and name 3-D shapes | Can you recognise and name 3-D shapes? | - Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]; 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] |
| Step 2: Sort 3-D shapes | Can you sort 3-D shapes? |  |
| Step 3: Recognise and name 2-D shapes | Can you recognise and name 2-D shapes? |  |
| Step 4: Sort 2-D shapes | Can you sort 2-D shapes? |  |
| Step 5: Patterns with 2-D and 3-D shapes | Can you explore patterns with 2-D and 3-D shapes? |  |
| Consolidation |  |  |
| Number: Place Value (within 20) |  |  |
| Step 1: Count within 20 | Can you count within 20? | - Count to and across 100 , forwards and backwards, beginning with zero or 1 , or from any given number |


|  |  | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| :---: | :---: | :---: |
| Step 2: Understand 10 | Can you explore and understand the number 10? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least <br> - Count, read and write numbers to 100 in numerals; count in multiples of $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s |
| Step 3: Understand 11, 12 and 13 | Can you explore and understand the numbers 11 , 12 and 13 ? | - Count to and across 100, forwards and backwards, beginning with zero or 1 , or from any given number <br> - Read and write numbers from 1 to 20 in numerals and words |
| Step 4: Understand 14, 15 and 16 | Can you explore and understand the numbers 14 , 15 and 16 ? |  |
| Step 5: Understand 17, 18 and 19 | Can you explore and understand the numbers 17 , 18 and 19? |  |
| Step 6: Understand 20 | Can you explore and understand the number 20? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least <br> - Count, read and write numbers to 100 in numerals; count in multiples of $2 s, 5 s$ and $10 s$ |
| Step 7: 1 more and 1 less | Can you find 1 more and 1 less than any number within 20? | - Given a number, identify 1 more and 1 less |
| Step 8: The number line to 20 | Can you identify numbers on a number line to 20? | - Count to and across 100, forwards and backwards, beginning with zero or 1 , or from any given number <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Step 9: Use a number line to 20 | Can you use a number line to 20? |  |
| Step 10: Estimate on a number line to 20 | Can you use a number line to estimate to 20? |  |
| Step 11: Compare numbers to 20 | Can you compare numbers to 20? |  |
| Step 12: Order numbers to 20 | Can you order numbers to 20? | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Number: Addition and Subtraction (within 20) |  |  |
| Step 1: Add by counting on within 20 | Can you add by counting on within 20? | - Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs <br> - Add and subtract 1-digit and 2-digit numbers to 20, including zero |
| Step 2: Add ones using number bonds | Can you add ones using number bonds? | - Represent and use number bonds and related subtraction facts within 20 <br> - Add and subtract 1-digit and 2-digit numbers to 20, including zero |


| Step 3: Find and make number bonds to 20 | Can you find and make number bonds to 20? | - Read, write and interpret mathematical statements involving addition $(+)$, subtraction $(-)$ and equals $(=)$ signs <br> - Represent and use number bonds and related subtraction facts within 20 |
| :---: | :---: | :---: |
| Step 4: Doubles | Can you explore doubling by adding two equal quantities? | - Read, write and interpret mathematical statements involving addition $(+)$, subtraction $(-)$ and equals $(=)$ signs <br> - Add and subtract 1 -digit and 2-digit numbers to 20 , including zero |
| Step 5: Near doubles | Can you use doubles to work out near doubles? | - Add and subtract 1-digit and 2-digit numbers to 20, including zero |
| Step 6: Subtract ones using number bonds | Can you subtract ones using a number line? | - Represent and use number bonds and related subtraction facts within 20 <br> - Add and subtract 1-digit and 2-digit numbers to 20, including zero |
| Step 7: Subtraction - counting back | Can you count back to subtract? | - Read, write and interpret mathematical statements involving |
| Step 8: Subtraction - finding the difference | Can you subtract by finding the difference? | addition $(+)$, subtraction $(-)$ and equals $(=)$ signs <br> - Add and subtract 1-digit and 2-digit numbers to 20, including zero |
| Step 9: Related facts | Can you explore addition and subtraction related facts to 20? | - Represent and use number bonds and related subtraction facts within 20 <br> - Add and subtract 1 -digit and 2-digit numbers to 20 , including zero |
| Step 10: Missing number problems | Can you solve on-step missing number problems? | - Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=$ ? -9 |
| Number: Place Value (within 50) |  |  |
| Step 1: Count from 20 to 50 | Can you count forwards and backwards between 20 and 50 ? | - Count to and across 100, forwards and backwards, beginning with zero or 1 , or from any given number <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Step 2: 20, 30, 40 and 50 | Can you explore multiples of 10 up to 50? |  |
| Step 3: Count by making groups of tens | Can you count objects by grouping into tens and ones? |  |
| Step 4: Groups of tens and ones | Can you identify groups of tens and ones? |  |
| Step 5: Partition into tens and ones | Can you partition numbers to 50? |  |
| Step 6: The number line to 50 | Can you use a number line to 50? | - Count to and across 100 , forwards and backwards, beginning with zero or 1 , or from any given number <br> - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least <br> - Given a number, identify 1 more and 1 less |

Step 7: Estimate on a number to 50

Step 8: 1 more, 1 less

Can you estimate on a number line to 50 ?

Can you find 1 more or 1 less than numbers between 0 and 50?

- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- Given a number, identify 1 more and 1 less


## Measurement: Length and Height

| Step 1: Compare lengths and heights | Can you compare lengths and heights? |
| :--- | :--- |
| Step 2: Measure length using objects | Can you measure length using objects? |
| Step 3: Measure length in centimetres | Can you measure length in centimetres? |
| Measurement: Mass and Volume | Can you compare heavier and lighter objects? <br> Step 1: Heavier and lighter <br> Step 2: Measure mass <br> Step 3: Compare mass <br> Step 4: Full and empty <br> Step 5: Compare volume you compare the mass of an object? <br> Can you identify full and empty objects? <br> Step 6: Measure capacity <br> Step 7: Compare capacity <br> than? |
| Can you measure capacity of different <br> containers? |  |
|  | Can you compare capacity of different <br> containers? |

- Compare, describe and solve practical problems for: lengths and height; mass/weight; capacity and volume; time
- Compare, describe and solve practical problems for: lengths and height; mass/weight; capacity and volume; time
- Measure and begin to record the following: lengths and heights; mass/weight; capacity and volume; time


## Measurement: Mass and Volume

Step 1: Heavier and lighter
Step 2: Measure mass
3: Compare mass

Step 5: Compare volume
Step 6: Measure capacity

Step 7: Compare capacity

## Number: Multiplication and division

| Step 1: Count in 2s | Can you count forwards and backwards in 2s? |
| :--- | :--- |
| Step 2: Counts in 10s | Can you count forwards and backwards in 10s? |
| Step 3: Count in 5s | Can you count forwards and backwards in 5s? |
| Step 4: Recognise equal groups | Can you recognise equal groups using resources? |
| Step 5: Add equal groups | Can you add equal groups? |
| Step 6: Make arrays | Can you make arrays to add equal groups? |
| Step 7: Make doubles | Can you add equal groups by doubling? |
| Step 8: Make equal groups - grouping | Can you make equal groups by grouping? |
| Step 9: Make equal groups - sharing | Can you make equal groups by sharing? |

- Compare, describe and solve practical problems for: lengths and heights; mass/weight; capacity and volume; time
- Measure and begin to record the following: lengths and heights; mass/weights; capacity and volume; time
- Count, read and write numbers to 100 in numerals; count in multiples of $2 s, 5 s$ and $10 s$
- Solve one-step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

| Number: Fractions |  |  |
| :---: | :---: | :---: |
| Step 1: Recognise a half of an object or a shape | Can you recognise a half of an object or a shape? | - Recognise, find and name a half as one of two equal parts of an object, shape or quantity |
| Step 2: Find half of an object or a shape | Can you find half of an object or a shape? |  |
| Step 3: Recognise a half of a quantity | Can you recognise half of a quantity? |  |
| Step 4: Find half of a quantity | Can you find half of a quantity? |  |
| Step 5: Recognise a quarter of an object or a shape | Can you recognise a quarter of an object or a shape? |  |
| Step 6: Find a quarter of an object or a shape | Can you find a quarter of an object or a shape? |  |
| Step 7: Recognise a quarter of a quantity | Can you recognise a quarter of a quantity? |  |
| Step 8: Find a quarter or a quantity | Can you find a quarter or a quantity? |  |
| Geometry: Position and Direction |  |  |
| Step 1: Describe turns | Can you use full, half and quarter to describe a turn? | - Describe position, direction and movement, including whole, half, quarter and three-quarter turns |
| Step 2: Describe position - left and right | Can you use left and right to describe a turn? | - Describe position, direction and movement, including whole, half, quarter and three-quarter turns <br> - Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside (non-statutory guidance) |
| Step 3: Describe position - forwards and backwards | Can you use forwards and backwards to describe a turn? |  |
| Step 4: Describe position - above and below | Can you use above and below to describe a turn? |  |
| Step 5: Ordinal numbers | Can you use ordinal numbers correctly? | - Practise counting (1, 2, 3...), ordering (for example, 1st, 2nd, 3rd ...) (non-statutory guidance) |
| Number: Place Value (within 100) |  |  |
| Step 1: Count from 50 to 100 | Can you count from 50 to 100? | - Count to and across 100, forwards and backwards, beginning with zero or 1 , or from any given number |
| Step 2: Tens to 100 | Can you recognise tens to 100? | - Count to and across 100, forwards and backwards, beginning with zero or 1 , or from any given number <br> - Count, read and write numbers to 100 in numerals; count in multiples of $2 s, 5 s$ and $10 s$ |
| Step 3: Partition into tens and ones | Can you partition into tens and ones? |  |
| Step 4: The number line to 100 | Can you use a number line to 100? | - Count to and across 100 , forwards and backwards, beginning with zero or 1 , or from any given number |


|  |  | - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| :---: | :---: | :---: |
| Step 5: 1 more, 1 less | Can you find 1 more or 1 less to 100? | Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least |
| Step 6: Compare numbers with the same number of tens | Can you compare numbers with the same number of tens? |  |
| Step 7: Compare any two numbers | Can you compare any two numbers to 100? |  |
| Measurement: Money |  |  |
| Step 1: Unitising | Can you represent a value by unitising? | - Recognise and know the value of different denominations of coins and notes |
| Step 2: Recognise coins | Can you explore and recognise different coins? |  |
| Step 3: Recognise notes | Can you explore and recognise different notes? |  |
| Step 4: Count in coins | Can you count in coins? | - Recognise and know the value of different denominations of coins and notes <br> - Count, read and write numbers to 100 in numerals; count in multiples of $2 s, 5 s$ and $10 s$ |
| Measurement: Time |  |  |
| Step 1: Before and after | Can you use before and after when telling the time? | - Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) |
| Step 2: Days of the week | Can you name the days of the week? | - Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) <br> - Recognise and use language relating to dates, including days of the week, weeks, months and years |
| Step 3: Months of the year | Can you name the months of the year? |  |
| Step 4: Hours, minutes and seconds | Can you compare hours, minutes and seconds? | - Compare, describe and solve practical problems for time <br> - Measure and begin to record time (hours, minutes, seconds) |
| Step 5: Tell the time to the hour | Can you tell the time to the hour? | - Tell the time to the hour and half past the hour and draw the hands on a clockface to show these times |
| Step 6: Tell the time to the half hour | Can you tell the time to the half hour? |  |
| Consolidation |  |  |

