

**New**

Primary schemes of  
learning

Changes overview

**Autumn**

**White  
Rose  
Maths**

[#MathsEveryoneCan](#)

# Introduction

Welcome to version 3.0 of the White Rose Maths primary schemes of learning! We have **listened to your feedback** and taken into account other national developments over the last few years to produce an even bigger and even better set of resources to support your teaching. In particular we have made progression even clearer, including more direct revisiting of previous years' work to close gaps caused by the pandemic and to align even more closely with the DFE's ready-to-progress criteria.

This document sets out the key changes to the steps in the Autumn term of our schemes. For each year group, we look at

- any changes of the blocks, such as order and timings.
- the changes to each individual block, directly comparing the steps in version 2.0 and the steps in version 3.0

|        | Week 1              | Week 2 | Week 3 | Week 4                           | Week 5 | Week 6 | Week 7 | Week 8             | Week 9 | Week 10                             | Week 11       | Week 12 |
|--------|---------------------|--------|--------|----------------------------------|--------|--------|--------|--------------------|--------|-------------------------------------|---------------|---------|
| Autumn | Number: Place Value |        |        | Number: Addition and Subtraction |        |        |        | Measurement: Money |        | Number: Multiplication and Division | Consolidation |         |

Year 2 version 2.0

Year 2 version 3.0

|        | Week 1                | Week 2 | Week 3 | Week 4                             | Week 5 | Week 6 | Week 7 | Week 8            | Week 9 | Week 10 | Week 11 | Week 12 |
|--------|-----------------------|--------|--------|------------------------------------|--------|--------|--------|-------------------|--------|---------|---------|---------|
| Autumn | Number<br>Place value |        |        | Number<br>Addition and subtraction |        |        |        | Geometry<br>Shape |        |         |         |         |

# Year 1 overview

## Version 2.0

|        | Week 1                          | Week 2                                       | Week 3 | Week 4                          | Week 5                                       | Week 6                           | Week 7                         | Week 8                         | Week 9            | Week 10                         | Week 11 | Week 12 |
|--------|---------------------------------|--|--------|---------------------------------|--|----------------------------------|--------------------------------|--------------------------------|-------------------|---------------------------------|---------|---------|
| Autumn | Number: Place Value (within 10) |  |        |                                 | Number: Addition and Subtraction (within 10) |                                  |                                |                                | Geometry: Shape   | Number: Place Value (within 20) |         |         |
| Spring | Consolidation                   | Number: Addition and Subtraction (within 20) |        | Number: Place Value (within 50) |  |                                  | Measurement: Length and Height | Measurement: Weight and Volume |                   | Consolidation                   |         |         |
| Summer | Consolidation                   | Number: Multiplication and Division          |        | Number: Fractions               | Geometry: Position and Direction             | Number: Place Value (within 100) |                                | Measurement: Money             | Measurement: Time |                                 |         |         |

Numbers to 20 has been moved to the Spring term and the consolidation block has been moved from Spring to Autumn to support all children to keep up from the start.

## Version 3.0

|        | Week 1                             | Week 2 | Week 3                                      | Week 4 | Week 5                           | Week 6                                      | Week 7                        | Week 8             | Week 9                        | Week 10 | Week 11         | Week 12       |
|--------|------------------------------------|--------|---|--------|----------------------------------|---|-------------------------------|--------------------|-------------------------------|---------|-----------------|---------------|
| Autumn | Number Place value (within 10)     |        |   |        |                                  | Number Addition and subtraction (within 10) |                               |                    |                               |         | Geometry: Shape | Consolidation |
| Spring | Number Place value (within 20)     |        | Number Addition and subtraction (within 20) |        | Number Place value (within 50)   |   | Measurement Length and height |                    | Measurement Weight and volume |         |                 |               |
| Summer | Number Multiplication and division |        | Number Fractions                            |        | Geometry: Position and direction | Number Place value (within 100)             |                               | Measurement: Money | Measurement: Time             |         | Consolidation   |               |

The first place value block is now 5 weeks long instead of 4 in order to ensure a deep understanding of this crucial aspect of children's learning.

# Year 1 small steps (Autumn)

## Block 1 – Place value (within 10)

| Current scheme steps                            | New scheme steps                  |
|---|-----------------------------------|
| Sort objects                                    | Sort objects                      |
| Count objects                                   | Count objects                     |
| Represent objects                               | Count objects from a larger group |
| Count, read and write forwards from any number  | Represent objects                 |
| Count, read and write backwards from any number | Recognise numbers as words        |
| Count one more                                  | Count on from any number          |
| Count one less                                  | 1 more                            |
| One to one correspondence                       | Count backwards within 10         |
| Compare groups                                  | 1 less                            |
| Introduce <, > and = symbols                    | Compare groups by matching        |
| Compare numbers                                 | Fewer, more, same                 |
| Order groups of objects                         | Less than, greater than, equal to |
| Order numbers                                   | Compare numbers                   |
| Ordinal numbers (1st, 2nd, 3rd)                 | Order objects and numbers         |
| The number line                                 | The number line                   |

The recommended time for learning this block has been increased from 4 weeks to 5 weeks.

Counting objects from a larger group has been added.

Steps on counting forwards are now next to each other, **before** the steps on counting backwards.

Greater emphasis placed on **language**.

Ordinal numbers has been **moved** to the position and direction block.

# Year 1 small steps (Autumn)

## Block 2 – Addition and subtraction (within 10)

| Current scheme steps                          | New scheme steps                                      |
|---|---|
| Parts and wholes activity (groups of objects) | Introduce parts and wholes                            |
| Part-whole model                              | Part-whole model                                      |
| Addition symbol                               | Write number sentences                                |
| Fact families - addition facts                | Fact families - addition facts                        |
| Find number bonds for numbers within 10       | Number bonds within 10                                |
| Systematic methods for number bonds within 10 | Systematic number bonds within 10                     |
| Number bonds to 10                            | Number bonds to 10                                    |
| Addition - adding together                    | Addition - add together                               |
| Addition - adding more                        | Addition - add more                                   |
| Addition - using bonds                        | Addition problems                                     |
| Finding a part                                | Find a part   |
| Subtraction - find a part                     | Subtraction - find a part                             |
| Fact families - the 8 facts                   | Fact families - the eight facts                       |
| Subtraction - taking away - crossing out      | Subtraction - take away/crossing out (How many left?) |
| Subtraction - taking away - using the symbol  | Subtraction - take away (How many left?)              |
| Subtraction - counting back                   | Subtraction on a number line                          |
|   | Add or subtract 1 or 2                                |

We have added more **emphasis** on the ideas of parts and wholes.

The pace of learning has been **slowed** down with the symbols for addition and subtraction introduced slightly later to keep the earlier focus on the structure and understanding of the operations.

Greater emphasis placed on **problem solving** with addition.

A small step on adding or subtracting 1 or 2 has been added.

# Year 1 small steps (Autumn)

## Block 3 – Shape

| Current scheme steps             | New scheme steps                 |
|----------------------------------|----------------------------------|
| Recognise and name 3-D shapes    | Recognise and name 3-D shapes    |
| Sort 3-D shapes                  | Sort 3-D shapes                  |
| Recognise and name 2-D shapes    | Recognise and name 2-D shapes    |
| Sort 2-D shapes                  | Sort 2-D shapes                  |
| Patterns with 2-D and 3-D shapes | Patterns with 2-D and 3-D shapes |

No changes to this block

# Year 2 overview

## Version 2.0

|        | Week 1                              | Week 2                           | Week 3 | Week 4                            | Week 5 | Week 6                        | Week 7                                      | Week 8             | Week 9                              | Week 10       | Week 11       | Week 12 |
|--------|-------------------------------------|----------------------------------|--------|-----------------------------------|--------|-------------------------------|---|--------------------|-------------------------------------|---------------|---------------|---------|
| Autumn | Number: Place Value                 |                                  |        | Number: Addition and Subtraction  |        |                               |   | Measurement: Money | Number: Multiplication and Division | Consolidation |               |         |
| Spring | Number: Multiplication and Division |                                  |        | Statistics                        |        | Geometry: Properties of Shape |   | Number: Fractions  |                                     |               |               |         |
| Summer | Measurement: Length and Height      | Geometry: Position and Direction |        | Consolidation and problem solving |        | Measurement: Time             | Measurement: Mass, Capacity and Temperature |                    |                                     |               | Consolidation |         |

Place value has been given an additional week.

The money block has been moved from autumn to spring

Shape has been moved from spring to autumn and given an extra week. This means that multiplication and division is now later and can be taught together rather than split over two terms.

## Version 3.0

|        | Week 1              | Week 2                              | Week 3 | Week 4            | Week 5                           | Week 6     | Week 7                         | Week 8                           | Week 9                                      | Week 10       | Week 11 | Week 12 |
|--------|---------------------|-------------------------------------|--------|-------------------|----------------------------------|------------|--------------------------------|----------------------------------|---|---------------|---------|---------|
| Autumn | Number: Place value |                                     |        |                   | Number: Addition and subtraction |            |                                |                                  | Geometry: Shape                             |               |         |         |
| Spring | Measurement: Money  | Number: Multiplication and division |        |                   |                                  |            | Measurement: Length and height |                                  | Measurement: Mass, capacity and temperature |               |         |         |
| Summer | Number: Fractions   |                                     |        | Measurement: Time |                                  | Statistics |                                | Geometry: Position and direction |   | Consolidation |         |         |

# Year 2 small steps (Autumn)

## Block 1 – Place value

| Current scheme steps  | New scheme steps                      |
|---|---------------------------------------|
| Count objects to 100 and read and write numbers in numerals and words | Numbers to 20                         |
| Represent numbers to 100  | Count objects to 100 by making 10s    |
| Tens and ones with a part-whole model                                 | Recognise tens and ones               |
| Tens and ones using addition  | Use a place value chart               |
| Use a place value chart   | Partition numbers to 100              |
| Compare objects   | Write numbers to 100 in words         |
| Compare numbers   | Flexibly partition numbers to 100     |
| Order objects and numbers   | Write numbers to 100 in expanded form |
| Count in 2s 5s 10s  | 10s on the number line to 100         |
| Count in 3s   | 10s and 1s on the number line to 100  |
|   | Estimate numbers on a number line     |
|   | Compare objects                       |
|   | Compare numbers                       |
|   | Order objects and numbers             |
|   | Count in 2s, 5s and 10s               |
|   | Count in 3s                           |

The recommended time for learning this block has been increased from 3 weeks to 4 weeks.

Consolidation of Year 1 material on the numbers to 100 is **more explicit**, and broken down into a greater number of steps.

There is increased emphasis on partitioning and **flexibility** in representing numbers in different forms. This will support coming material on addition and subtraction.

More use is made of the **number line** as a key representation, including to support comparing numbers.

# Year 2 small steps (Autumn)

## Block 2 – Addition and subtraction

| Current scheme steps                                 | New scheme steps  |
|--|---|
| Fact families - addition and subtraction bonds to 20 | Bonds to 10   |
| Check calculations                                   | Fact families – addition and subtraction bonds within 20      |
| Compare number sentences                             | Related facts   |
| Related facts  | Bonds to 100 (tens)   |
| Bonds to 100 (tens)                                  | Add and subtract 1s   |
| Add and subtract 1s                                  | Add by making 10  |
| 10 more and 10 less                                  | Add three 1-digit numbers                                     |
| Add and subtract 10s                                 | Add to the next 10  |
| Add a 2-digit and 1-digit number - crossing ten      | Add across a 10   |
| Subtract a 1-digit number from a 2-digit number      | Subtract across 10  |
| Add two 2-digit numbers - not crossing ten           | Subtract from a 10  |
| Add two 2-digit numbers - crossing ten               | Subtract a 1-digit number from a 2-digit number (across a 10) |
| Subtract a 2-digit number from a 2-digit number      | 10 more, 10 less  |
| Subtract a 2-digit number from a 2-digit number      | Add and subtract 10s  |
| Bonds to 100 (tens and ones)                         | Add two 2-digit numbers (not across a 10)                     |
| Add three 1-digit numbers                            | Add two 2-digit numbers (across a 10)                         |
|  | Subtract two 2-digit numbers (not across a 10)                |
|  | Subtract two 2-digit numbers (across a 10)                    |
|  | Mixed addition and subtraction                                |
|  | Compare number sentences                                      |
|  | Missing number problems                                       |

The key concepts in this block have been **broken down** into even smaller steps to support learning and to more easily identify exactly where any intervention is needed. Closing these gaps early on will help children to gain greater success.

Steps relating to each of addition and subtraction are grouped together more to support **development of understanding** of each concept.

The column methods for addition and subtraction have been **moved** to Year 3.

Adding **by making 10** now features in Year 2 having been moved here from Year 1. This is supported by its own step and a related next step which explores adding to the next 10

# Year 2 small steps (Autumn)

## Block 3 – Shape

| Current scheme steps          | New scheme steps                         |
|-------------------------------|--|
| Recognise 2-D and 3-D shapes  | Recognise 2-D and 3-D shapes             |
| Count sides on 2-D shapes     | Count sides on 2-D shapes                |
| Count vertices on 2-D shapes  | Count vertices on 2-D shapes             |
| Draw 2-D shapes               | Draw 2-D shapes                          |
| Lines of symmetry             | Lines of symmetry on shapes              |
| Sort 2-D shapes               | Use lines of symmetry to complete shapes |
| Make patterns with 2-D shapes | Sort 2-D shapes                          |
| Count faces on 3-D shapes     | Count faces on 3-D shapes                |
| Count edges on 3-D shapes     | Count edges on 3-D shapes                |
| Count vertices on 3-D shapes  | Count vertices on 3-D shapes             |
| Sort 3-D shapes               | Sort 3-D shapes                          |
| Make patterns with 3-D shapes | Make patterns with 2-D and 3-D shapes    |

More time is invested in **line symmetry** as this has been split into two steps to explore the different skills of identifying a line of symmetry and completing a shape given one “half” and the line of symmetry in more detail.

The steps on making patterns with 2-D and 3-D shapes have been **combined** as they cover the same skill. Both repeating (ABABAB) and symmetric (ABCBA and ABCCBA) patterns are explored.

# Year 3 overview

## Version 2.0

|        | Week 1                              | Week 2 | Week 3 | Week 4                           | Week 5     | Week 6                        | Week 7                            | Week 8                              | Week 9            | Week 10 | Week 11       | Week 12 |
|--------|-------------------------------------|--------|--------|----------------------------------|------------|-------------------------------|-----------------------------------|-------------------------------------|-------------------|---------|---------------|---------|
| Autumn | Number: Place Value                 |        |        | Number: Addition and Subtraction |            |                               |                                   | Number: Multiplication and Division |                   |         |               |         |
| Spring | Number: Multiplication and Division |        |        | Measurement: Money               | Statistics |                               | Measurement: Length and Perimeter |                                     | Number: Fractions |         | Consolidation |         |
| Summer | Number: Fractions                   |        |        | Measurement: Time                |            | Geometry: Properties of Shape |                                   | Measurement: Mass and Capacity      |                   |         |               |         |

The order of some of the other blocks has been changed to help alignment for mixed age classes.

No changes have been made to the blocks in the autumn term.

## Version 3.0

|        | Week 1                               | Week 2 | Week 3            | Week 4                           | Week 5 | Week 6             | Week 7         | Week 8                               | Week 9     | Week 10 | Week 11       | Week 12 |
|--------|--------------------------------------|--------|-------------------|----------------------------------|--------|--------------------|----------------|--------------------------------------|------------|---------|---------------|---------|
| Autumn | Number Place value                   |        |                   | Number Addition and subtraction  |        |                    |                | Number Multiplication and division A |            |         |               |         |
| Spring | Number Multiplication and division B |        |                   | Measurement Length and perimeter |        | Number Fractions A |                | Measurement Mass and capacity        |            |         |               |         |
| Summer | Number Fractions B                   |        | Measurement Money | Measurement Time                 |        |                    | Geometry Shape |                                      | Statistics |         | Consolidation |         |

# Year 3 small steps (Autumn)

## Block 1 – Place value

| Current scheme steps         | New scheme steps                         |
|------------------------------|--|
| Hundreds                     | Represent numbers to 100                 |
| Representing numbers to 1000 | Partition numbers to 100                 |
| 100s, 10s and 1s (1)         | Number line to 100                       |
| 100s, 10s and 1s (2)         | Hundreds                                 |
| Number line to 1000          | Represent numbers to 1,000               |
| Find 1/10/100 more or less   | Partition numbers to 1,000               |
| Compare objects to 1000      | Flexible partitioning of numbers to 1000 |
| Compare numbers to 1000      | Hundreds, tens and ones                  |
| Order numbers                | Find 1, 10 or 100 more or less           |
| Count in 50s                 | Number line to 1,000                     |
|                              | Estimating on a number line to 1,000     |
|                              | Compare numbers to 1,000                 |
|                              | Order numbers to 1,000                   |
|                              | Count in 50s                             |

The first three steps **review** children's learning of numbers to 100 from key stage 1 to ensure they are ready to move onto numbers to 1,000.

Greater emphasis is placed on the different ways of **partitioning** numbers to 1,000 and the place value of each of the digits in the numbers.

There is more emphasis on the use of the number line to **deepen understanding** of the relative position of numbers in the linear number system.

# Year 3 small steps (Autumn)

## Block 2 – Addition and subtraction

| Current scheme steps                                   | New scheme steps                                |
|--|---|
| Add and subtract multiples of 100                      | Apply number bonds within 10                    |
| Add and subtract 3-digit and 1-digit numbers           | Add and subtract 1s                             |
| Add 3-digit and 1-digit numbers – crossing 10          | Add and subtract 10s                            |
| Subtract a 1-digit number from a 3-digit number        | Add and subtract 100s                           |
| Add and subtract 3-digit and 2-digit numbers           | Spot the pattern                                |
| Add 3-digit and 2-digit numbers – crossing 100         | Add 1s across a 10                              |
| Subtract a 2-digit number from a 3-digit number        | Add 10s across a 100                            |
| Add and subtract 100s                                  | Subtract 1s across a 10                         |
| Spot the pattern – making it explicit                  | Subtract 10s across a 100                       |
| Add and subtract a 2-digit and 3-digit numbers         | Make connections                                |
| Add a 2-digit and 3-digit numbers – crossing 10 or 100 | Add two numbers (no exchange)                   |
| Subtract a 2-digit number from a 3-digit number        | Subtract two numbers (no exchange)              |
| Add two 3-digit numbers – not crossing 10 or 100       | Add two numbers (across a 10)                   |
| Add two 3-digit numbers – crossing 10 or 100           | Add two numbers (across a 100)                  |
| Subtract a 3-digit number from a 3-digit number        | Subtract two numbers (across a 10)              |
| Subtract a 3-digit number from a 3-digit number        | Subtract two numbers (across a 100)             |
| Estimate answers to calculations                       | Add 2-digit and 3-digit numbers                 |
| Check answers  | Subtract a 2-digit number from a 3-digit number |
|  | Complements to 100                              |
|  | Estimate answers                                |
|  | Inverse operations                              |
|  | Make decisions                                  |

Children now learn to use the **formal column methods** of addition and subtraction for the first time. To support them to do this fluently, several steps are included to ensure they have the mental skills to perform the calculations and to prevent cognitive overload when working on these.

The formal methods are introduced **slowly** and carefully looking at calculations without exchanges before bringing in exchange, linking to the mental methods covered earlier in the block.

**Complements to 100** are explicitly explored in a new step.

The final step of the block encourages children to consider both the choice of operation when solving a problem, and what method would be **most efficient** so that they do not apply the formal method even when it is inappropriate to do so.

# Year 3 small steps (Autumn)

## Block 3 – Multiplication and division A

| Current scheme steps          | New scheme steps              |
|-------------------------------|-------------------------------|
| Multiplication - equal groups | Multiplication - equal groups |
| Multiply by 3                 | Use arrays                    |
| Divide by 3                   | Multiples of 2                |
| The 3 times-table             | Multiples of 5 and 10         |
| Multiply by 4                 | Sharing and grouping          |
| Divide by 4                   | Multiply by 3                 |
| The 4 times-table             | Divide by 3                   |
| Multiply by 8                 | The 3 times-table             |
| Divide by 8                   | Multiply by 4                 |
| The 8 times-table             | Divide by 4                   |
|                               | The 4 times-table             |
|                               | Multiply by 8                 |
|                               | Divide by 8                   |
|                               | The 8 times-table             |
|                               | The 2, 4 and 8 times-tables   |

Before moving on the new times tables for Year 3, more time is spent on **revisiting and reinforcing** the structure of multiplication and division, using arrays and developing children's understanding of sharing and grouping.

The word '**multiple**' is emphasised.

A new step is included to explicitly make the **links** between the 2, 4 and 8 times-tables

# Year 4 overview

## Version 2.0

|        | Week 1                              | Week 2             | Week 3            | Week 4                           | Week 5                        | Week 6 | Week 7                            | Week 8           | Week 9                              | Week 10       | Week 11 | Week 12 |
|--------|-------------------------------------|--------------------|-------------------|----------------------------------|-------------------------------|--------|-----------------------------------|------------------|-------------------------------------|---------------|---------|---------|
| Autumn | Number: Place Value                 |                    |                   | Number: Addition and Subtraction |                               |        | Measurement: Length and Perimeter |                  | Number: Multiplication and Division |               |         |         |
| Spring | Number: Multiplication and Division |                    | Measurement: Area | Number: Fractions                |                               |        |                                   | Number: Decimals |                                     | Consolidation |         |         |
| Summer | Number: Decimals                    | Measurement: Money | Measurement: Time | Statistics                       | Geometry: Properties of Shape |        | Geometry: Position and Direction  |                  | Consolidation                       |               |         |         |

Length and perimeter has been moved to the Spring term.

Area has been moved to the Autumn term. This now precedes the multiplication and division block as at this stage children are exploring the idea of area (by counting squares) rather than the formula, so multiplication facts are not a pre-requisite.

## Version 3.0

|        | Week 1                             | Week 2            | Week 3           | Week 4                           | Week 5                          | Week 6           | Week 7     | Week 8                          | Week 9                             | Week 10 | Week 11 | Week 12       |
|--------|------------------------------------|-------------------|------------------|----------------------------------|---------------------------------|------------------|------------|---------------------------------|------------------------------------|---------|---------|---------------|
| Autumn | Number Place value                 |                   |                  |                                  | Number Addition and subtraction |                  |            | Measurement Area                | Number Multiplication and division |         |         | Consolidation |
| Spring | Number Multiplication and division |                   |                  | Measurement Length and perimeter |                                 | Number Fractions |            | Number Decimals                 |                                    |         |         |               |
| Summer | Number Decimals                    | Measurement Money | Measurement Time | Consolidation                    | Geometry Shape                  |                  | Statistics | Geometry Position and direction |                                    |         |         |               |

# Year 4 small steps (Autumn)

## Block 1 – Place value

| Current scheme steps      | New scheme steps                           |
|---------------------------|--|
| Round to the nearest 10   | Represent numbers to 1,000                 |
| Round to the nearest 100  | Partition numbers to 1,000                 |
| Count in 1000s            | Number line to 1,000                       |
| 1000s, 100s, 10s and 1s   | Thousands                                  |
| Partitioning              | Represent numbers to 10,000                |
| Number line to 10,000     | Partition numbers to 10,000                |
| 1,000 more or less        | Flexible partitioning of numbers to 10,000 |
| Compare numbers           | Find 1, 10, 100, 1,000 more or less        |
| Order numbers             | Number line to 10,000                      |
| Round to the nearest 1000 | Estimate on a number line to 10,000        |
| Count in 25s              | Compare numbers to 10,000                  |
| Negative numbers          | Order numbers to 10,000                    |
| Roman numerals            | Roman numerals                             |
|                           | Round to the nearest 10                    |
|                           | Round to the nearest 100                   |
|                           | Round to the nearest 1,000                 |
|                           | Round to the nearest 10, 100 or 1,000      |

The steps on rounding have been put together at the end of the block rather than interspersed as present. This, together with the final extra step which explores rounding to different degrees of accuracy, will allow a **more focused** look at the concept of rounding.

The block starts with **revision** of the numbers to 1,000 studied in Year 3 to make sure these are secure before moving to 4-digit numbers.

The study of negative numbers has been **moved to Year 5** where it can be explored in greater depth rather than a single step.

# Year 4 small steps (Autumn)

## Block 2 – Addition and subtraction

| Current scheme steps                        | New scheme steps                                      |
|---|---|
| Add and subtract 1s, 10s, 100s and 1,000s   | Add and subtract 1s, 10s, 100s and 1,000s             |
| Add two 4-digit numbers - no exchange       | Add up to two 4-digit numbers - no exchange           |
| Add two 4-digit numbers - one exchange      | Add two 4-digit numbers - one exchange                |
| Add two 4-digit numbers                     | Add two 4-digit numbers- more than one exchange       |
| Subtract two 4-digit numbers - no exchange  | Subtract two 4-digit numbers - no exchange            |
| Subtract two 4-digit numbers - one exchange | Subtract two 4-digit numbers - one exchange           |
| Subtract two 4-digit numbers                | Subtract two 4-digit numbers – more than one exchange |
| Efficient Subtraction                       | Efficient subtraction                                 |
| Estimate answers                            | Estimate answers                                      |
| Checking strategies                         | Checking strategies                                   |

There is a more **gradual introduction** to the addition and subtraction of numbers with four digits, with consideration of numbers with fewer digits revisited first in the steps.

There is more **explicit** consideration of cases where there are **no tens and no hundreds** when subtracting to support the difficulties sometimes encountered by children when exchanging in calculations like these.

# Year 4 small steps (Autumn)

## Block 3 – Area

| Current scheme steps | New scheme steps |
|----------------------|------------------|
| What is area?        | What is area?    |
| Counting squares     | Counting squares |
| Make shapes          | Make shapes      |
| Compare area         | Compare area     |

Note that this block now precedes the multiplication and division block. At this stage children are exploring the idea of area (by counting squares) rather than the formula, so multiplication facts are **not a prerequisite**.

# Year 4 small steps (Autumn)

## Block 4 – Multiplication and division A

| Current scheme steps             | New scheme steps                  |
|----------------------------------|-----------------------------------|
| Multiply and divide by 6         | Multiples of 3                    |
| 6 times-table and division facts | Multiply and divide by 6          |
| Multiply and divide by 9         | 6 times-table and division facts  |
| 9 times-table and division facts | Multiply and divide by 9          |
| Multiply and divide by 7         | 9 times-table and division facts  |
| 7 times-table and division facts | The 3, 6 and 9 times-tables       |
| 11 and 12 times tables           | Multiply and divide by 7          |
| Multiply by 1 and 0              | 7 times-table and division facts  |
| Divide by 1 and itself           | 11 times-table and division facts |
| Multiply three numbers           | 12 times-table and division facts |
|                                  | Multiply by 1 and 0               |
|                                  | Divide by 1 and itself            |
|                                  | Multiply three numbers            |

Many steps have been swapped with the other multiplication and division block in Year 4 in the previous version of the schemes. For example, multiplication by 10 and 100 has been **moved to the later block** where understanding of this is needed to support the formal method of short multiplication.

Multiples of 3 are revisited before exploring the related 6 and 9 times-tables, and a step is included to look at the **connections** between these.

The **11 and 12** times-tables and division facts have been given a step each.

# Year 5 overview

## Version 2.0

|        | Week 1                              | Week 2           | Week 3                           | Week 4                        | Week 5     | Week 6                           | Week 7                              | Week 8                        | Week 9                           | Week 10                         | Week 11       | Week 12 |
|--------|-------------------------------------|------------------|----------------------------------|-------------------------------|------------|----------------------------------|-------------------------------------|-------------------------------|----------------------------------|---------------------------------|---------------|---------|
| Autumn | Number: Place Value                 |                  | Number: Addition and Subtraction |                               | Statistics |                                  | Number: Multiplication and Division |                               |                                  | Measurement: Perimeter and Area |               |         |
| Spring | Number: Multiplication and Division |                  | Number: Fractions                |                               |            |                                  |                                     |                               | Number: Decimals and Percentages |                                 | Consolidation |         |
| Summer | Consolidation                       | Number: Decimals |                                  | Geometry: Properties of Shape |            | Geometry: Position and Direction |                                     | Measurement: Converting Units |                                  | Measurement: Volume             |               |         |

The blocks on statistics and perimeter and area have been moved to later in the year.

The six-week fractions block from the Spring term in version 2 of the schemes has been split into two; with the steps on adding and subtracting fractions moved to here in the Autumn term and the steps on multiplication and division of fractions in a separate block in the Spring term.

## Version 3.0

|        | Week 1                              | Week 2 | Week 3                           | Week 4 | Week 5                              | Week 6 | Week 7 | Week 8                          | Week 9                        | Week 10    | Week 11             | Week 12 |
|--------|-------------------------------------|--------|----------------------------------|--------|-------------------------------------|--------|--------|---------------------------------|-------------------------------|------------|---------------------|---------|
| Autumn | Number: Place value                 |        | Number: Addition and subtraction |        | Number: Multiplication and division |        |        | Number: Fractions A             |                               |            |                     |         |
| Spring | Number: Multiplication and division |        | Number: Fractions B              |        | Number: Decimals and percentages    |        |        | Measurement: Perimeter and area |                               | Statistics |                     |         |
| Summer | Geometry: Shape                     |        | Geometry: Position and direction |        | Number: Decimals                    |        |        | Number: Negative numbers        | Measurement: Converting units |            | Measurement: Volume |         |

# Year 5 small steps (Autumn)

## Block 1 – Place value

| Current scheme steps                   | New scheme steps                         |
|--|--|
| Numbers to 10 000                      | Roman numerals to 1,000                  |
| Round to the nearest 10, 100 or 1000   | Numbers to 10,000                        |
| Numbers to 100 000                     | Numbers to 100,000                       |
| Compare and order numbers to 100 000   | Numbers to 1,000,000                     |
| Round Numbers to 100 000               | Read and write numbers to 1,000,000      |
| Numbers to a million                   | Powers of 10                             |
| Counting in 10s, 100s.... 100 000s     | 10/100/1,000/10,000/100,000 more or less |
| Compare and order numbers to 1 000 000 | Partition numbers to 1,000,000           |
| Round numbers to 1 000 000             | Number line to 1,000,000                 |
| Negative numbers                       | Compare and order numbers to 100,000     |
| Roman numerals to 1,000                | Compare and order numbers to 1,000,000   |
|  | Round to the nearest 10, 100 or 1,000    |
|  | Round within 100,000                     |
|  | Round within 1,000,000                   |

Roman numerals is now first to serve as a **reminder of place** value with smaller numbers, and comparing systems.

The steps have been **grouped together** by type rather than swapping back and fore. The structure of numbers of all the sizes is covered first, and later comparing and ordering numbers followed is explored before rounding.

There is new step specifically aimed and reading and writing numbers to **1 million**.

**Negative numbers** are now covered in a separate short block later in the year.

# Year 5 small steps (Autumn)

## Block 2 – Addition and subtraction

| Current scheme steps                           | New scheme steps                                  |
|--|---|
| Add whole numbers with more than 4 digits      | Mental strategies                                 |
| Subtract whole numbers with more than 4-digits | Add whole numbers with more than four digits      |
| Round to estimate and approximate              | Subtract whole numbers with more than four digits |
| Inverse operations (addition and subtraction)  | Round to check answers                            |
| Multi-step addition and subtraction problems   | Inverse operations (addition and subtraction)     |
|  | Multi-step addition and subtraction problems      |
|  | Compare calculations                              |
|  | Find missing numbers                              |

Mental strategies are revised first. This revision of **key number relationships** will support the use of formal methods in the upcoming steps.

Although the steps focus on numbers with more than four digits, the key learning sections begin with numbers with fewer digits as **revision** and to identify any gaps/need for intervention before moving on these more involved calculations.

The step building on the rounding learning from the place value block is now more explicitly focused on **estimation** to check answers.

Two new steps have been added to support the **development of mental flexibility** through using known facts to deduce, rather than work out, other facts.

# Year 5 small steps (Autumn)

## Block 3 – Multiplication and division A

| Current scheme steps           | New scheme steps               |
|--------------------------------|--------------------------------|
| Multiples                      | Multiples                      |
| Factors                        | Common multiples               |
| Common factors                 | Factors                        |
| Prime numbers                  | Common factors                 |
| Square numbers                 | Prime numbers                  |
| Cube numbers                   | Square numbers                 |
| Multiply by 10, 100 and 1,000  | Cube numbers                   |
| Divide by 10, 100 and 1,000    | Multiply by 10, 100 and 1,000  |
| Multiples of 10, 100 and 1,000 | Divide by 10, 100 and 1,000    |
|                                | Multiples of 10, 100 and 1,000 |

An extra step has been added in to focus on **common multiples**, mirroring the structure of the steps on factors.

There is another Year 5 block on multiplication and division, the first block in the Spring term. This second block focuses on the **formal methods** of multiplication and division and makes use of the times-tables facts and effect of multiplying by powers of 10 in this block.

# Year 5 small steps (Autumn)

## Block 4 – Fractions A

| Current scheme steps                       | New scheme steps                                     |
|--|--|
| Equivalent fractions                       | Find fractions equivalent to a unit fraction         |
| Improper fractions to mixed numbers        | Find fractions equivalent to a non-unit fraction     |
| Mixed numbers to improper fractions        | Recognise equivalent fractions                       |
| Number sequences                           | Convert improper fractions to mixed numbers          |
| Compare and order fractions less than 1    | Convert mixed numbers to improper fractions          |
| Compare and order fractions greater than 1 | Compare fractions less than 1                        |
| Add and subtract fractions                 | Order fractions less than 1                          |
| Add fractions within 1                     | Compare and order fractions greater than 1           |
| Add 3 or more fractions                    | Add and subtract fractions with the same denominator |
| Add fractions                              | Add fractions within 1                               |
| Add mixed numbers                          | Add fractions with total greater than 1              |
| Subtract fractions                         | Add to a mixed number                                |
| Subtract mixed numbers                     | Add two mixed numbers                                |
| Subtraction - breaking the whole           | Subtract fractions                                   |
| Subtract 2 mixed numbers                   | Subtract from a mixed number                         |
|  | Subtract from a mixed number - breaking the whole    |
|  | Subtract two mixed numbers                           |

More introductory work on **equivalent fractions** has been included.

**Mental methods** are emphasised alongside formal written methods.

Adding three or more fractions **incorporated** into other steps rather than treated separately.

The other Year 5 block on fractions is the second block in the **Spring** term.

# Year 6 overview

## Version 2.0

|        | Week 1                        | Week 2              | Week 3   | Week 4                        | Week 5   | Week 6 | Week 7            | Week 8 | Week 9     | Week 10 | Week 11                          | Week 12 |
|--------|-------------------------------|---------------------|--|-------------------------------|--|--------|-------------------|--------|------------|---------|----------------------------------|---------|
| Autumn | Number: Place Value           |                     | Number: Addition, Subtraction, Multiplication and Division |                               |  |        | Number: Fractions |        |            |         | Geometry: Position and Direction |         |
| Spring | Number: Decimals              | Number: Percentages | Number: Algebra  | Measurement: Converting Units | Measurement: Perimeter, Area and Volume                |        | Number: Ratio     |        | Statistics |         |                                  |         |
| Summer | Geometry: Properties of Shape |                     | Consolidation or SATs preparation                          |                               | Consolidation, investigations and preparations for KS3 |        |                   |        |            |         |                                  |         |

The block on position and direction has been moved to later in the year to help align Y5 and Y6 topics for mixed-age classes.

The four-week fractions block has been split into two parts, one covering addition and subtraction and the other multiplication and division.

Converting units has been brought forward from the Spring term to reinforce multiplication and division by powers of 10 covered in the Four operations block.

## Version 3.0

|        | Week 1              | Week 2          | Week 3                              | Week 4                                      | Week 5   | Week 6                                  | Week 7              | Week 8     | Week 9              | Week 10 | Week 11                       | Week 12 |
|--------|---------------------|-----------------|-------------------------------------|---|--|---|---------------------|------------|---------------------|---------|-------------------------------|---------|
| Autumn | Number: Place value |                 | Number: Four operations             |   |  |   | Number: Fractions A |            | Number: Fractions B |         | Measurement: Converting units |         |
| Spring | Number: Ratio       | Number: Algebra | Number: Decimals                    | Number: Fractions, decimals and percentages |  | Measurement: Area, perimeter and volume |                     | Statistics |                     |         |                               |         |
| Summer | Geometry: Shape     |                 | Measurement: Position and direction |   | Themed projects, consolidation and problem solving |   |                     |            |                     |         |                               |         |

# Year 6 small steps (Autumn)

## Block 1 – Place value

| Current scheme steps         | New scheme steps                     |
|------------------------------|--------------------------------------|
| Numbers to a million         | Numbers to 1,000,000                 |
| Numbers to 10 million        | Numbers to 10,000,000                |
| Compare and order any number | Read and write numbers to 10,000,000 |
| Round any number             | Powers of 10                         |
| Negative numbers             | Number line to 10,000,000            |
|                              | Compare and order any integers       |
|                              | Round any integers                   |
|                              | Negative numbers                     |

There us more **revision** of numbers of the size children met in Year 5.

Place value charts are used more extensively to emphasise the structure of numbers in “**groups of threes**” – 1s, 10s, 100s followed by 1,000s, 10,000s and 100,000s

**Multiplicative connections** between numbers has more emphasis e.g. 100 times the size, one hundredth the size of..

Use of the **number line** has more emphasis, including dividing into 2,4, 5 and 10 sections.

# Year 6 small steps (Autumn)

## Block 2 – Addition, subtraction, multiplication and division

| Current scheme steps                                | New scheme steps                                    |
|---|---|
| Add and subtract integers                           | Add and subtract integers                           |
| Common factors                                      | Common factors                                      |
| Common multiples                                    | Common multiples                                    |
| Primes to 100                                       | Rules of divisibility                               |
| Squares and cubes                                   | Primes to 100                                       |
| Multiply up to a 4-digit number by a 2-digit number | Square and cube numbers                             |
| Short division                                      | Multiply up to a 4-digit number by a 2-digit number |
| Division using factors                              | Solve problems with multiplication                  |
| Long division (1)                                   | Short division                                      |
| Long division (2)                                   | Division using factors                              |
| Long division (3)                                   | Introduction to long division                       |
| Long division (4)                                   | Long division with remainders                       |
| Order of operations                                 | Solve problems with division                        |
| Mental calculations and estimation                  | Solve multi-step problems                           |
| Reason from known facts                             | Order of operations                                 |
|   | Mental calculations and estimation                  |
|   | Reason from known facts                             |

An explicit step has been included to check understanding of the **rules of divisibility**.

The progression in the block is now even clearer, for example the **sequence of learning** for long division has been improved.

More emphasis is placed on **problem solving**, including using the appropriate method for a calculation.

# Year 6 small steps (Autumn)

## Block 3 – Fractions A

| Current scheme steps            | New scheme steps                      |
|---------------------------------|---------------------------------------|
| Simplify fractions              | Equivalent fractions and simplifying  |
| Fractions on a number line      | Equivalent fractions on a number line |
| Compare and order (denominator) | Compare and order (denominator)       |
| Compare and order (numerator)   | Compare and order (numerator)         |
| Add and subtract fractions (1)  | Add and subtract simple fractions     |
| Add and subtract fractions (2)  | Add and subtract any two fractions    |
| Add fractions                   | Add mixed numbers                     |
| Subtract fractions              | Subtract mixed numbers                |
| Mixed addition and subtraction  | Multi-step problems                   |

There is more introductory work on **equivalent fractions** before moving to simplifying.

The progression in the block is now even clearer, for example the **sequence of learning** for long division has been improved.

More emphasis is placed on **problem solving**, including using the appropriate method for a calculation.

# Year 6 small steps (Autumn)

## Block 4 – Fractions B

| Current scheme steps                   | New scheme steps                       |
|--|--|
| Multiply fractions by integers         | Multiply fractions by integers         |
| Multiply fractions by fractions        | Multiply fractions by fractions        |
| Divide fractions by integers (1)       | Divide a fraction by an integer        |
| Divide fractions by integers (2)       | Divide any fraction by an integer      |
| Fraction of an amount                  | Mixed questions with fractions         |
| Fraction of an amount - find the whole | Fraction of an amount                  |
|  | Fraction of an amount - find the whole |

An extra step has been included with **mixed questions** to support children to identify the correct operation and correct method of solution.

# Year 6 small steps (Autumn)

## Block 5 – Converting units

| Current scheme steps           | New scheme steps               |
|--------------------------------|--------------------------------|
| Metric measures                | Metric measures                |
| Convert metric measures        | Convert metric measures        |
| Calculate with metric measures | Calculate with metric measures |
| Miles and kilometres           | Miles and kilometres           |
| Imperial measures              | Imperial measures              |

There are **no major changes** to the content of this block.