



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 Place value				Number Addition and subtraction				Geometry 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		

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.

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	

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			Consolidation

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 pre-requisite**.

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		Geometry 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.



New

Primary schemes of
learning

Changes overview

Spring

White
Rose
Maths

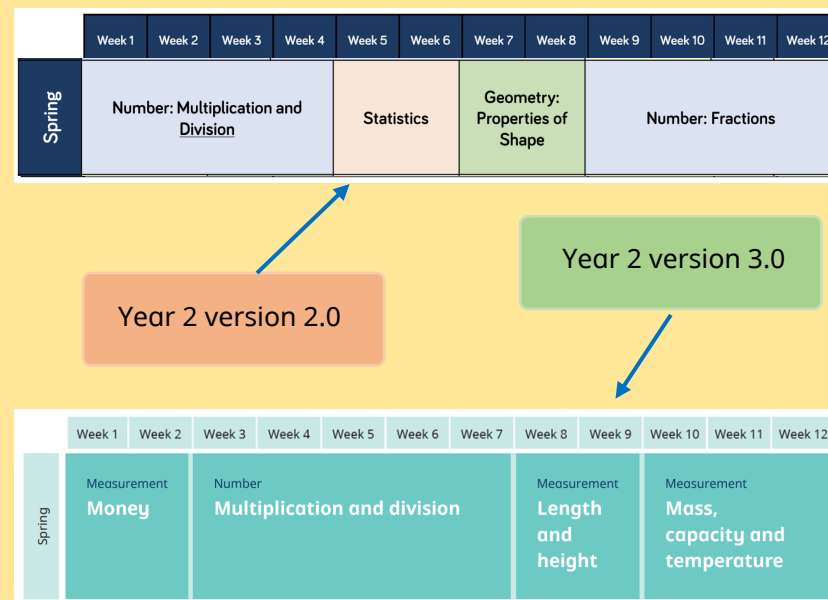
#MathsEveryoneCan

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 spring 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



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	

The remaining blocks in the spring term are in the same order as version 2.0, enabling development of children's understanding and application of number.

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 Mass and volume		
Summer	Number Multiplication and division			Number Fractions		Geometry Position and direction	Number Place value (within 100)		Measurement Money	Measurement Time		Consolidation

Year 1 small steps (Spring)

Block 1 – Place value (within 20)

Current scheme steps	New scheme steps
Count forwards and backwards and write numbers to 20 in numerals and words	Count within 20
Numbers from 11 to 20	Understand 10
Tens and ones	Understand 11, 12 and 13
Count one more and one less	Understand 14, 15, 16
Compare groups of objects	Understand 17, 18, 19
Compare numbers	Understand 20
Order groups of objects	1 more and 1 less
Order numbers	The number line to 20
	Use a number line to 20
	Estimate on a number line to 20
	Compare numbers to 20
	Order numbers to 20

The steps have been broken down further to allow greater exploration of the difficult 'teen' numbers.

Greater emphasis has been placed on the use of the number line.

Place value counters are **not** used in Year 1 to avoid the potential confusion of learning too many representations at once.

The learning builds on the understanding of 10, with numbers to 20 seen as one ten and some more. 20 is seen both as one more than 19 and as two tens.

The recommended time for learning this block has been increased from 2 weeks to **3 weeks**.

Year 1 small steps (Spring)

Block 2 – Addition and subtraction (within 20)

Current scheme steps	New scheme steps
Add by counting on	Add by counting on within 20
Find and make number bonds	Add ones using number bonds
Add by making 10	Find and make number bonds to 20
Subtraction - not crossing 10	Doubles
Subtraction - crossing 10 (1)	Near doubles
Subtraction - crossing 10 (2)	Subtract ones using number bonds
Related facts	Subtraction – counting back
Compare number sentences	Subtraction – finding the difference
	Related facts
	Missing number problems

We've moved adding by making 10 to Year 2

The pace of learning has been **slowed** down with more steps added.

The use of **doubles** and **near doubles** has been made explicit.

The concept of the **difference** between two numbers is introduced for the first time, this had previously been in the autumn term.

Year 1 small steps (Spring)

Block 3 – Place value (within 50)

Current scheme steps	New scheme steps
Numbers to 50	Count from 20 to 50
Tens and ones	20, 30, 40 and 50
Represent numbers to 50	Count by making groups of tens
One more and one less	Groups of tens and ones
Compare objects within 50	Partition into tens and ones
Compare numbers within 50	The number line to 50
Order numbers within 50	Estimate on a number line to 50
Counts in 2s	1 more, 1 less
Count in 5s	

As more time had been spent securing the basics, the recommended time for learning this block has been decreased from 3 weeks to **2 weeks**.

Counting in 2s and 5s have been **moved** to the multiplication and division block

Groups of 10 have been given more prominence to support the idea of partitioning.

Greater emphasis has been placed on the use of the number line.

Year 1 small steps (Spring)

Block 4 – Length and Height

Current scheme steps	New scheme steps
Compare lengths & heights	Compare lengths and heights
Measure length (1)	Measure length using objects
Measure length (2)	Measure length in centimetres

No changes to this block.

Year 1 small steps (Spring)

Block 4 – Mass and Volume

Current scheme steps	New scheme steps
Introducing weight and mass	Heavier and lighter
Measure mass	Measure mass
Compare mass	Compare mass
Introduce capacity and volume	Full and empty
Measure capacity	Compare volume
Compare capacity	Measure capacity
	Compare capacity

The block has been renamed Mass and Volume (from Weight and Volume) to emphasise correct language.

Some steps have been made easier to support early understanding of these concepts.

An extra step has been added on the ideas of **full** and **empty** (including nearly full and nearly empty) to support comprehension of capacity.

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

The Money block has been moved from autumn to spring.

The two multiplication and division blocks from autumn and spring have been brought together as one cohesive 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				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	

Two of the measurement blocks have been brought forward from summer to spring, with Fractions and Statistics moved to later in the year.

Year 2 small steps (Spring)

Block 1 – Money

Current scheme steps	New scheme steps
Count money - pence	Count money - pence
Count money - pounds (notes and coins)	Count money - pounds (notes and coins)
Count money - notes and coins	Count money - pounds and pence
Select money	Choose notes and coins
Make the same amount	Make the same amount
Compare money	Compare amounts of money
Find the total	Calculate with money
Find the difference	Make a pound
Find change	Find change
Two-step problems	Two-step problems

Early calculations with money have been simplified and will involve pounds only or pence only.

There is much more emphasis on the value of one pound as 100 pence, with an explicit step on making one pound and change being found only from one pound.

Number bonds to 100 are reinforced and the use of the number line is revisited to support calculations.

Year 2 small steps (Spring)

Block 2 – Multiplication and division

Current scheme steps	New scheme steps
Recognise equal groups	Recognise equal groups
Make equal groups	Make equal groups
Add equal groups	Add equal groups
Multiplication sentences using the x symbol	Introduce the multiplication symbol
Multiplication sentences from pictures	Multiplication sentences
Use arrays	Use arrays
2 times-table	Make equal groups – grouping
5 times-table	Make equal groups – sharing
10 times-table	The 2 times-table
Make equal groups – sharing	Divide by 2
Make equal groups – grouping	Doubling and halving
Divide by 2	Odd and even numbers
Odd and even numbers	The 10 times-table
Divide by 5	Divide by 10
Divide by 10	The 5 times-table
	Divide by 5
	The 5 and 10 times-tables

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 earlier will help children to gain greater success.

Steps relating to each of the key times-tables for Year 2 have been grouped together to support **development of understanding** and fluency of factual knowledge.

A new step has been added to emphasise the **connection** between the 5- and 10 times-tables.

Year 2 small steps (Spring)

Block 3 – Length and height

Current scheme steps	New scheme steps
Measure length (cm)	Measure in centimetres
Measure length (m)	Measure in metres
Compare lengths	Compare lengths and heights
Order lengths	Order lengths and heights
Four operations with lengths	Four operations with lengths and heights

There are very few changes to the content of this block. In the second step, the focus is kept on the metre, with questions on mixed units removed.

Year 2 small steps (Spring)

Block 4 – Mass, capacity and temperature

Current scheme steps	New scheme steps
Compare mass	Compare mass
Measure mass in grams	Measure in grams
Measure mass in kilograms	Measure in kilograms
Compare volume	Four operations with mass
Millilitres	Compare volume and capacity
Litres	Measure in millilitres
Temperature	Measure in litres
	Four operations with volume and capacity
	Temperature

Extra steps have been added so children can practise their skills using the **four operations** of arithmetic in the contexts of mass, capacity and temperature.

Building on their understanding of **number lines**, children use scales to 100, divided into 2, 5 and 10 equal parts.

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			Consolidation

The order of the blocks in the spring and summer terms has been changed to help alignment for mixed age classes.

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 (Spring)

Block 1 – Multiplication and division B

Current scheme steps	New scheme steps
Comparing statements	Multiples of 10
Related calculations	Related calculations
Multiply 2-digits by 1-digit (1)	Reasoning about multiplication
Multiply 2-digits by 1-digit (2)	Multiply a 2-digit number by a 1-digit number – no exchange
Divide 2-digits by 1-digit (1)	Multiply a 2-digit number by a 1-digit number – with exchange
Divide 2-digits by 1-digit (2)	Link multiplication and division
Divide 2-digits by 1-digit (3)	Divide a 2-digit number by a 1-digit number – no exchange
Scaling	Divide a 2-digit number by a 1-digit number – flexible partitioning
How many ways?	Divide a 2-digit number by a 1-digit number – with reminders
	Scaling
	How many ways?

A new step on multiplying by **multiples of 10** starts the block to support later multiplication by 2-digit numbers.

Another new step helps children to see the **link** between multiplication and division.

The emphasis is on understanding the **structure and relationships** in the calculations through the use of expanded methods. Formal written methods are **not** introduced until Year 4 (for multiplication) and Year 5 (for division).

Year 3 small steps (Spring)

Block 2 – Length and perimeter

Current scheme steps	New scheme steps
Measure length	Measure in metres and centimetres
Equivalent lengths (m and cm)	Measure in millimetres
Equivalent lengths (mm and cm)	Measure in centimetres and millimetres
Compare lengths	Metres, centimetres and millimetres
Add lengths	Equivalent lengths (metres and centimetres)
Subtract lengths	Equivalent lengths (centimetres and millimetres)
Measure perimeter	Compare lengths
Calculate perimeter	Add lengths
	Subtract lengths
	What is perimeter?
	Measure perimeter
	Calculate perimeter

We've broken down the skill of measuring into even smaller steps to support children's understanding of using different units, and combinations of units.

We've also split the concept of perimeter into three distinct steps from two.

A new step is included to support children to **choose** the appropriate unit of measure in different contexts.

Year 3 small steps (Spring)

Block 3 – Fractions A

Current scheme steps	New scheme steps
Making the whole	Understand the denominators of unit fractions
Tenths	Compare and order unit fractions
Fractions on a number line	Understand the numerators of non-unit fractions
Equivalent fractions (1)	Understand the whole
Equivalent fractions (2)	Compare and order non-unit fractions
Equivalent fractions (3)	Fractions and scales
Compare fractions	Fractions on a number line
Order fractions	Count in fractions on a number line
	Equivalent fractions on a number line
	Equivalent fractions as bar models

We have removed the explicit review of Year 2 fractions and split the Year 3 fractions content into two blocks. This focuses on **developing understanding** of fractions and recognising the same fraction can be represented in many different ways.

This slower and detailed progression of fractions goes right back to first principles, closely examining the roles of the denominator and numerator, and their relationship to the **whole**.

Year 3 small steps (Spring)

Block 4 – Mass and capacity

Current scheme steps	New scheme steps
Measure mass (1)	Use scales
Measure mass (2)	Measure mass in grams
Compare mass	Measure mass in kilograms and grams
Add and subtract mass	Equivalent masses (kilograms and grams)
Measure capacity (1)	Compare mass
Measure capacity (2)	Add and subtract mass
Compare capacity	Measure capacity and volume in millilitres
Add and subtract capacity	Measure capacity and volume in litres and millilitres
	Equivalent capacities and volumes (litres and millilitres)
	Compare capacity and volume
	Add and subtract capacity and volume

The new step on **using scales** begins with a focus on dividing 100 into 2/4/5/10 parts, starting with number lines and moving to include context.

Measuring in **single units** (grams or millilitres) is considered before moving on to mixed units (e.g. grams and kilograms).

The distinction between **volume** and **capacity** is explicitly reviewed.

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 is now included in the spring term instead of Area.

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 A			Consolidation
Spring	Number Multiplication and division B			Measurement Length and perimeter	Number Fractions				Number Decimals A			
Summer	Number Decimals B	Measurement Money		Measurement Time	Consolidation		Geometry Shape		Statistics	Geometry Position and direction		

Year 4 small steps (Spring)

Block 1 – Multiplication and division B

Current scheme steps	New scheme steps
Factor pairs	Factor pairs
Efficient multiplication	Use factor pairs
Multiply by 10	Multiply by 10
Multiply by 100	Multiply by 100
Divide by 10	Divide by 10
Divide by 100	Divide by 100
Written methods	Related facts – multiplication and division
Multiply 2-digits by 1-digit	Informal written methods for multiplication
Multiply 3-digits by 1-digit	Multiply a 2-digit number by a 1-digit number
Divide 2-digits by 1-digit (1)	Multiply a 3-digit number by a 1-digit number
Divide 2-digits by 1-digit (2)	Divide a 2-digit number by a 1-digit number (1)
Divide 3-digits by 1-digit	Divide a 2-digit number by a 1-digit number (2)
Correspondence problems	Divide a 3-digit number by a 1-digit number
Efficient multiplication	Correspondence problems
	Efficient multiplication

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 this block where understanding of this is needed to support the formal method of short multiplication. This is now new content for Year 4

There is an extra step on looking at **factors**, as this supports both multiplication and division.

The study of division is extended to include the tables learnt in the autumn term, but the formal method is still not introduced until Year 5

Year 4 small steps (Spring)

Block 2 – Length and perimeter

Current scheme steps	New scheme steps
Kilometres	Measure in kilometres and metres
Perimeter on a grid	Equivalent lengths (kilometres and metres)
Perimeter of a rectangle	Perimeter on a grid
Perimeter of a rectilinear shape	Perimeter of a rectangle
	Perimeter of rectilinear shapes
	Find missing lengths in rectilinear shapes
	Calculate the perimeter of rectilinear shapes
	Perimeter of regular polygons
	Perimeter of polygons

We've developed a **more detailed** and in-depth focus on length and perimeter.

There are a series of new steps exploring **polygons** and their perimeter, in line with RTP criteria.

Year 4 small steps (Spring)

Block 3 – Fractions

Current scheme steps	New scheme steps
What is a fraction?	Understand the whole
Equivalent fractions (1)	Count beyond 1
Equivalent fractions (2)	Partition a mixed number
Fractions greater than 1	Number lines with mixed numbers
Count in fractions	Compare and order mixed numbers
Add 2 or more fractions	Understand improper fractions
Subtract 2 fractions	Convert mixed numbers to improper fractions
Subtract from whole amounts	Convert improper fractions to mixed numbers
Calculate fractions of a quantity	Equivalent fractions on a number line
Problem solving – calculate quantities	Equivalent fraction families
	Add two or more fractions
	Add fractions and mixed numbers
	Subtract two fractions
	Subtract from whole amounts
	Subtract from mixed numbers

We've provided a much **slower pace** with fractions by splitting concepts into smaller steps to ensure children can build their understanding better.

In line with RTP, we have included the study of **mixed numbers**, which is revisited in Year 5

To keep the learning focused, the explicit study of fractions of quantities has been **moved to Year 5**, although this can be explored in the context of division if desired.

Year 4 small steps (Spring)

Block 4 – Decimals A

Current scheme steps	New scheme steps
Recognise tenths and hundredths	Tenths as fractions
Tenths as decimals	Tenths as decimals
Tenths on a place value grid	Tenths on a place value chart
Tenths on a number line	Tenths on a number line
Divide 1-digit by 10	Divide a 1-digit number by 10
Divide 2-digits by 10	Divide a 2-digit number by 10
Hundredths	Hundredths as fractions
Hundredths as decimals	Hundredths as decimals
Hundredths on a place value grid	Hundredths on a place value chart
Divide 1 or 2-digits by 100	Divide a 1 or 2-digit number by 100

There is a more **gradual introduction** to decimals, with tenths explored in detail before hundredths are introduced a little later than previously.

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 previously in the autumn term are now taught in the spring.

Now that the steps on adding and subtracting fractions have been covered in the autumn term, there is a shorter block covering multiplication and division of fractions here in the spring.

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			Number Fractions A			
Spring	Number Multiplication and division B			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 (Spring)

Block 1 – Multiplication and division B

Current scheme steps	New scheme steps
Multiply 4-digits by 1-digit	Multiply up to a 4-digit number by a 1-digit number
Multiply 2-digits (area model)	Multiply a 2-digit number by a 2-digit number (area model)
Multiply 2-digits by 2-digits	Multiply a 2-digit number by a 2-digit number
Multiply 3-digits by 2-digits	Multiply a 3-digit number by a 2-digit number
Multiply 4-digits by 2-digits	Multiply a 4-digit number by a 2-digit number
Divide 4-digits by 1-digit	Solve problems with multiplication
Divide with remainders	Short division
	Divide a 4-digit number by a 1-digit number
	Divide with remainders
	Efficient division
	Solve problems with multiplication and division

Progression in multiplication has been **slowed**, with steps building to greater amounts of digits from revision of previous learning.

There is more explicit **problem solving** so children can practice their skills in practical contexts.

As the formal method of division is introduced for the first time, this has been split into more steps to give time to develop understanding.

Year 5 small steps (Spring)

Block 2 – Fractions B

Current scheme steps	New scheme steps
Multiply unit fractions by an integer	Multiply a unit fraction by an integer
Multiply non-unit fractions by an integer	Multiply a non-unit fraction by an integer
Multiply mixed numbers by integers	Multiply a mixed number by an integer
Fraction of an amount	Calculate a fraction of a quantity
Using fractions as operators	Fraction of an amount
	Find the whole
	Use fractions as operators

The step on **fractions of amounts** has been split into three to allow for more gradual learning and deeper understanding.

Year 5 small steps (Spring)

Block 3 – Decimals and Percentages

Current scheme steps	New scheme steps
Decimals up to 2 d.p.	Decimals up to 2 decimal places
Decimals as fractions (1)	Equivalent fractions and decimals (tenths)
Decimals as fractions (2)	Equivalent fractions and decimals (hundredths)
Understand thousandths	Equivalent fractions and decimals
Thousandths as decimals	Thousandths as fractions
Rounding decimals	Thousandths as decimals
Understand percentages	Thousandths on a place value chart
Percentages as fractions and decimals	Order and compare decimals (same number of decimal places)
Equivalent FDP	Order and compare any decimals with up to 3 decimal places
	Round to the nearest whole number
	Round to 1 decimal place
	Understand percentages
	Percentages as fractions
	Percentages as decimals
	Equivalent fractions, decimals and percentages

Progression in this block has been **slowed** with revision of previous learning embedded before moving on to thousandths. Three weeks are now allocated, compared to two in the previous scheme.

The **rounding** element has also been split into two steps, so children can explore rounding to the nearest whole before rounding to one decimal place.

Year 5 small steps (Spring)

Block 4 – Perimeter and area

Current scheme steps	New scheme steps
Measure perimeter	Perimeter of rectangles
Calculate perimeter	Perimeter of rectilinear shapes
Area of rectangles	Perimeter of polygons
Area of compound shapes	Area of rectangles
Area of irregular shapes	Area of compound shapes
	Estimate area

An extra step has been included to build on the Year 4 learning on **perimeter of polygons**.

The last step has been renamed to avoid the misconception that previous shapes covered (such as rectangles) are regular.

Year 5 small steps (Spring)

Block 5 – Statistics

Current scheme steps	New scheme steps
Draw line graphs	Draw line graphs
Read and interpret line graphs	Read and interpret line graphs
Use line graphs to solve problems	Read and interpret tables
Read and interpret tables	Two-way tables
Two-way tables	Read and interpret timetables
Timetables	

The two steps relating to the **interpretation of line graphs** have been combined.

The step on timetables has been simplified to focus on reading and interpreting only. **Calculating** with timetables has moved to the summer block Converting units.

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 blocks on ratio and algebra have been moved to earlier in the year to give more time to consolidate these new concepts.

The blocks on decimals and percentages have been adapted to emphasise the links between all of fractions, decimals and percentages.

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		Geometry Position and direction		Themed projects, consolidation and problem solving								

Year 6 small steps (Spring)

Block 1 – Ratio

Current scheme steps	New scheme steps
Using ratio language	Add or multiply?
Ratio and fractions	Using ratio language
Introducing the ratio symbol	Introduction to the ratio symbol
Calculating ratio	Ratio and fractions
Using scale factors	Scale drawing
Calculating scale factors	Using scale factors
Ratio and proportion problems	Similar shapes
	Ratio problems
	Proportion problems
	Recipes

Extra steps have been added to ease progression and help children see the difference between **additive** and **multiplicative reasoning**.

More emphasis is placed on **language** so children have understanding ratio and proportion in terms of “for every” and “in every”.

Year 6 small steps (Spring)

Block 2 – Algebra

Current scheme steps	New scheme steps
Find a rule - one step	1-step function machines
Find a rule - two step	2-step function machines
Forming expressions	Form expressions
Substitution	Substitution
Formulae	Formulae
Forming equations	Form equations
Solve simple one-step equations	Solve 1-step equations
Solve two-step equations	Solve 2-step equations
Find pairs of values	Find pairs of values
Enumerate possibilities	Solve problems with two unknowns

The opening steps have been focused to explore function machines more deeply, including **working backwards**. This strategy is then developed in the equations steps.

The progression in working with problems with **two unknowns** has been improved, with an emphasis on a bar modelling approach.

Year 6 small steps (Spring)

Block 3 – Decimals

Current scheme steps	New scheme steps
Three decimal places	Place value within 1
Multiply by 10, 100 and 1,000	Place value – integers and decimals
Divide by 10, 100 and 1,000	Round decimals
Multiply decimals by integers	Add and subtract decimals
Divide decimals by integers	Multiply by 10, 100 and 1,000
Division to solve problems	Divide by 10, 100 and 1,000
Decimals as fractions	Multiply decimals by integers
Fractions and decimals (1)	Divide decimals by integers
Fractions and decimals (2)	Multiply and divide decimals in context

The progression in this block has been **slowed down** with clearer development building from learning in earlier years.

Some steps have been moved into the next block, **Fractions, decimals and percentages**, to ensure decimals are secure before moving to equivalence.

Year 6 small steps (Spring)

Block 4 – Fractions, decimals and percentages

Current scheme steps	New scheme steps
Fractions to percentages	Decimal and fraction equivalents
Equivalent FDP	Fraction as division
Order FDP	Understand percentages
Percentage of an amount (1)	Fractions to percentages
Percentage of an amount (2)	Equivalent fractions, decimals and percentages
Percentages (missing values)	Order fractions, decimals and percentages
	Percentage of an amount – one step
	Percentage of an amount – multi-step
	Percentages – missing values

This replaces the block on percentages in the previous version of the schemes. The focus is on understanding **equivalence** before using this to support **calculations**.

More emphasis is placed on **representations**, including number lines and bar models.

Year 6 small steps (Spring)

Block 5 – Perimeter, area and volume

Current scheme steps	New scheme steps
Shapes - same area	Shapes - same area
Area and perimeter	Area and perimeter
Area of a triangle (1)	Area of a triangle – counting squares
Area of a triangle (2)	Area of a right-angled triangle
Area of a triangle (3)	Area of any triangle
Area of a parallelogram	Area of a parallelogram
Volume - counting cubes	Volume – counting cubes
Volume of a cuboid	Volume of a cuboid

There are no significant changes to this block, but the steps involving the area of a triangle have been renamed to clarify their purpose.

Year 6 small steps (Spring)

Block 6 – Statistics

Current scheme steps	New scheme steps
Read and interpret line graphs	Line graphs
Draw line graphs	Dual bar charts
Use line graphs to solve problems	Read and interpret pie charts
Circles	Pie charts with percentages
Read and interpret pie charts	Draw pie charts
Pie charts with percentages	The mean
Draw pie charts	
The mean	

The steps on line graphs have been **consolidated** into one, as these have been covered in detail in earlier years.

An extra step has been added to explicitly explore **dual bar charts**.

The step on circles has been moved into the **Shape** block in the summer term, but some vocabulary will be needed when studying pie charts.