Ready to Progress

# Years 1 to 6

#MathsEveryoneCan

2021-22

White Rose Maths

# Introduction

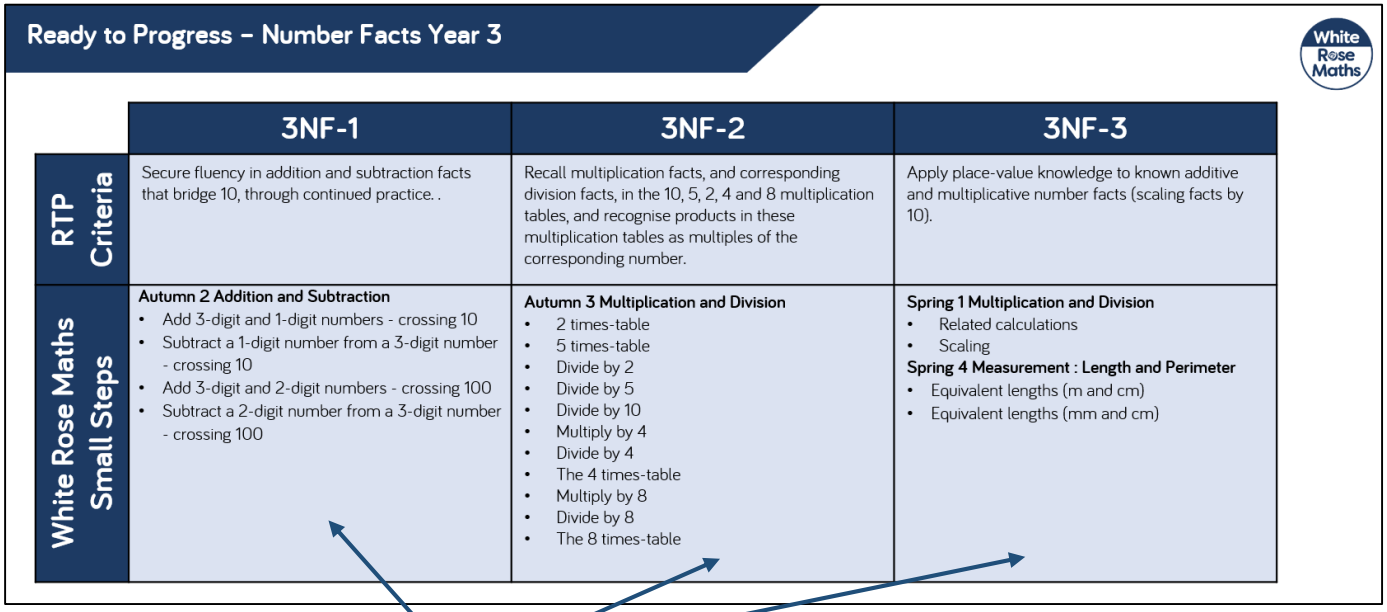
Many schools are using the 'Ready to Progress' criteria produced by the DfE last year as part of their assessments of pupils' learning. This document lists the key steps in the White Rose Maths schemes of learning that support each of the 'Ready to Progress' criteria. In many cases, the criteria are also addressed in other steps and in other blocks, for example looking at addition and subtraction in the context of measures. We have not listed every single instance as this would become unwieldly.

This can be used alongside our at-a-glance National Curriculum progression document to support the planning of key concepts both within and between year groups.

For each year group, the criteria for each ready-to-progress strand are listed on a single page. These are:

- Number and place value **NPV**
- Number facts **NF**
- Addition and subtraction **AS**
- Multiplication and division **MD**
- Fractions **F**
- Geometry **G**

Note that not all year groups include each strand and that in Year 6, addition, subtraction, multiplication and division are grouped together as **AS/MD**



**Ready to Progress – Number Facts Year 3**

| | 3NF-1 | 3NF-2 | 3NF-3 |
|---|---|---|---|
| RTP Criteria | Secure fluency in addition and subtraction facts that bridge 10, through continued practice. . | Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. | Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). |
| White Rose Maths Small Steps | **Autumn 2 Addition and Subtraction**<br>• Add 3-digit and 1-digit numbers - crossing 10<br>• Subtract a 1-digit number from a 3-digit number - crossing 10<br>• Add 3-digit and 2-digit numbers - crossing 100<br>• Subtract a 2-digit number from a 3-digit number - crossing 100 | **Autumn 3 Multiplication and Division**<br>• 2 times-table<br>• 5 times-table<br>• Divide by 2<br>• Divide by 5<br>• Divide by 10<br>• Multiply by 4<br>• Divide by 4<br>• The 4 times-table<br>• Multiply by 8<br>• Divide by 8<br>• The 8 times-table | **Spring 1 Multiplication and Division**<br>• Related calculations<br>• Scaling<br>**Spring 4 Measurement : Length and Perimeter**<br>• Equivalent lengths (m and cm)<br>• Equivalent lengths (mm and cm) |

Most strands are split into a number of separate criteria. For each of these, the key White Rose Maths steps are listed under the name(s) of the block(s) of learning in which the steps appear.

| | 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 | |

| | 1NPV-1 | 1NPV-2 |
|---|---|---|
| RTP Criteria | **Count within 100, forwards and backwards, starting with any number.** | **Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =** |
| White Rose Maths Small Steps | **Autumn 1 Place Value (within 10)**<br>• Count objects to 10<br>• Count forwards to 10<br>• Count backwards from 10<br>• Count one more for numbers within 10<br>• Count one less for numbers within 10<br>• Count one more one less<br>**Autumn 4 Place Value (within 20)**<br>• Count forwards and backwards and write numbers to 20<br>• Count one more one less<br>**Spring 2 Place Value (within 50)**<br>• Counting forwards and backwards within 50<br>• One more one less<br>**Summer 4 Place Value (within 20)**<br>• Counting to 100<br>• Counting forwards and backwards within 100<br>• One more, one less | **Autumn 1 Place Value (within 10)**<br>• Compare up to 10 objects<br>• Introduce <, > and = for numbers within 10<br>• Compare numbers within 10<br>• Order up to 10 objects<br>• Order numbers up to 10<br>• Ordinal numbers<br>• The number line from 0 to 10<br>**Autumn 4 Place Value (within 20)**<br>• Compare groups of objects<br>• Compare numbers<br>• Order groups of objects<br>• Order numbers<br>**Spring 1 Addition and Subtraction (within 20)**<br>• Compare number sentence<br>**Spring 3 Measurement : Length and Height**<br>• Measure length (2) |

| | 1NF-1 | 1NF-2 |
|---|---|---|
| RTP Criteria | **Develop fluency in addition and subtraction facts within 10** | **Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.** |
| White Rose Maths Small Steps | **Autumn 2 Addition and Subtraction (within 10)**<br>• Fact families - addition facts<br>• Find number bonds for numbers within 10<br>• Systematic methods for number bonds within 10<br>• Number bonds to 10<br>• Compare number bonds<br>• Addition - adding together<br>• Addition - adding more<br>• Finding a part<br>• Subtraction - taking away - crossing out<br>• Subtraction - taking away - using the symbol<br>• Subtraction - find a part<br>• Fact families - the 8 facts<br>• Subtraction - counting back<br>• Subtraction - finding the difference | **Spring 2 Place Value (within 50)**<br>• Count in 2s<br>• Count in 5s<br>**Summer 1 Multiplication and Division**<br>• Count in 10s<br>**Summer 5 Money**<br>• Counting in Coins |

| | 1AS-1 | 1AS-2 |
|---|---|---|
| RTP Criteria | **Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.** | **Read, write and interpret equations containing addition (+), subtraction (−) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.** |
| White Rose Maths Small Steps | **Autumn 2 Addition and Subtraction (within 10)**<br>• Introducing parts and wholes (single object)<br>• Part-whole model (with images)<br>• Part-whole model<br>• Find number bonds for numbers within 10<br>• Systematic methods for number bonds within 10<br>• Number bonds to 10<br>• Compare number bonds<br>• Finding a part | **Autumn 2 Addition and Subtraction (within 10)**<br>• Addition symbol<br>• Fact families - addition facts<br>• Addition - adding together<br>• Addition - adding more<br>• Subtraction - taking away - crossing out<br>• Subtraction - taking away - using the symbol<br>• Subtraction - find a part<br>• Fact families - the 8 facts<br>• Subtraction - counting back<br>• Subtraction - finding the difference<br>**Spring 1 Addition and Subtraction (within 20)**<br>Add by counting on within 20<br>• Add by making 10<br>• Subtraction - not crossing 10<br>• Subtraction - not crossing 10 (counting back)<br>• Subtraction - crossing 10 (1)<br>• Subtraction - crossing 10 (2)<br>• Related facts |

| | 1G-1 | 1G-2 |
|---|---|---|
| RTP Criteria | **Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.** | **Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.** |
| White Rose Maths Small Steps | **Autumn 3 Geometry : Shape**<br>• Recognise and name 3-D shapes<br>• Sort 3-D shapes<br>• Recognise and name 2-D shapes<br>• Sort 2-D shapes | **Autumn 3 Geometry : Shape**<br>• Recognise and name 3-D shapes<br>• Sort 3-D shapes<br>• Recognise and name 2-D shapes<br>• Sort 2-D shapes |

| | 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 |

| | 2NPV-1 | 2NPV-2 |
|---|---|---|
| RTP Criteria | **Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.** | **Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.** |
| White Rose Maths Small Steps | **Autumn 1 Place Value**<br>• Count objects to 100<br>• Read and write numbers to 100 in numerals and words<br>• Represent numbers to 100<br>• Tens and ones using a part-whole<br>• Tens and ones using addition<br>• Use a place value chart | **Autumn 1 Place Value**<br>• Compare objects<br>• Compare numbers<br>• Order objects and numbers<br>**Autumn 3 Money**<br>• Compare money |

| | 2NF-1 | |
|---|---|---|
| RTP Criteria | **Secure fluency in addition and subtraction facts within 10, through continued practice.** | |
| White Rose Maths Small Steps | **Autumn 2 Addition and Subtraction**<br>• Fact families - addition and subtraction bonds to 20<br>• Check calculations<br>• Compare number sentences<br>• Know your bonds<br><br>Pupils will also be developing their fluency with theses facts throughout the remaining steps in the Addition and Subtraction block | |

| | 2AS-1 | 2AS-2 | 2AS-3 | 2AS-4 |
|---|---|---|---|---|
| RTP Criteria | **Add and subtract across 10** | **Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".** | **Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.** | **Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.** |
| White Rose Maths Small Steps | **Autumn 2 Addition and Subtraction**<br>• Add by making 10<br>• Subtraction - crossing 10<br>• Find and make number bonds<br>• Add three 1-digit numbers | **Autumn 3 Money**<br>• Find the difference<br><br>The structure of 'difference' is also highlighted within many of the other subtraction steps | **Autumn 2 Addition and Subtraction**<br>• Related facts<br>• Add and subtract 1s<br>• 10 more 10 less<br>• Add and subtract 10s<br>• Add a 2-digit and 1-digit number - crossing ten<br>• Subtract a 1-digit number from a 2-digit number - crossing ten | **Autumn 2 Addition and Subtraction**<br>• Add two 2-digit numbers - not crossing ten - add ones and add tens<br>• Add two 2-digit numbers - crossing ten - add ones and add tens<br>• Subtract a 2-digit number from a 2-digit number - not crossing ten<br>• Subtract a 2-digit number from a 2-digit number - crossing ten - subtract ones and subtract tens<br>• Bonds to 100 (tens and ones)<br>**Autumn 3 Money**<br>• Find the total<br>• Find the difference<br>• Find change<br>• Two-step problems<br>**Summer 1 Measurement : Length and Height**<br>• Four operations with lengths<br>• Problem solving with lengths |

| | 2MD-1 | 2MD-2 |
|---|---|---|
| RTP Criteria | **Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.** | **Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).** |
| White Rose Maths Small Steps | **Spring 1 Multiplication and Division**<br>• Multiplication sentences using the x symbol<br>• Multiplication sentences from pictures<br>• Use arrays<br>• 2 times-table<br>• 5 times-table<br>• 10 times-table<br>**Spring 2 Statistics**<br>• Draw pictograms (2, 5 and 10)<br>• Interpret pictograms (2, 5 and 10)<br>• Block diagrams<br>**Summer 4 Measurement : Mass, Capacity and Temperature**<br>• Measure mass in grams<br>• Measure mass in kilograms<br>• Millilitres<br>• Temperature | **Spring 1 Multiplication and Division**<br>• Make equal groups – sharing<br>• Make equal groups - grouping<br>• Divide by 2<br>• Divide by 5<br>• Divide by 10 |

| | 2G-1 | |
|---|---|---|
| RTP Criteria | **Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.** | |
| White Rose Maths Small Steps | **Spring 3 Geometry : Properties of Shape**<br>• Recognise 2-D and 3-D shapes<br>• Count sides on 2-D shapes<br>• Count vertices on 2-D shapes<br>• Draw 2-D shapes<br>• Sort 2-D shapes<br>• Count faces on 3-D shapes<br>• Count edges on 3-D shapes<br>• Count vertices on 3-D shapes<br>• Sort 3-D shapes<br>• Make patterns with 3-D shapes | |

| | 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 |

| | 3NPV-1 | 3NPV-2 | 3NPV-3 | 3NPV-4 |
|---|---|---|---|---|
| RTP Criteria | **Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10** | **Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.** | **Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10** | **Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.** |
| White Rose Maths Small Steps | **Autumn 1 Place Value**<br>• Hundreds<br>**Spring 2 Money**<br>• Convert pounds and pence | **Autumn 1 Place Value**<br>• Numbers to 1,000<br>• 100s, 10s and 1s (1)<br>• 100s, 10s and 1s (2) | **Autumn 1 Place Value**<br>• Number line to 1,000<br>• Compare objects<br>• Compare numbers<br>• Ordering numbers<br>**Spring 4 Measurement : Length and Perimeter**<br>• Compare lengths | **Autumn 1 Place Value**<br>• Count in 50s<br>**Summer 4 Measurement : Mass and Capacity**<br>• Measure mass (1)<br>• Measure mass (2)<br>• Measure capacity (1)<br>• Measure capacity (2)<br>• Compare capacity |

| | 3NF-1 | 3NF-2 | 3NF-3 |
|---|---|---|---|
| RTP Criteria | **Secure fluency in addition and subtraction facts that bridge 10, through continued practice. .** | **Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.** | **Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).** |
| White Rose Maths Small Steps | **Autumn 2 Addition and Subtraction**<br>• Add 3-digit and 1-digit numbers - crossing 10<br>• Subtract a 1-digit number from a 3-digit number - crossing 10<br>• Add 3-digit and 2-digit numbers - crossing 100<br>• Subtract a 2-digit number from a 3-digit number - crossing 100 | **Autumn 3 Multiplication and Division**<br>• 2 times-table<br>• 5 times-table<br>• Divide by 2<br>• Divide by 5<br>• Divide by 10<br>• Multiply by 4<br>• Divide by 4<br>• The 4 times-table<br>• Multiply by 8<br>• Divide by 8<br>• The 8 times-table | **Spring 1 Multiplication and Division**<br>• Related calculations<br>• Scaling<br>**Spring 4 Measurement : Length and Perimeter**<br>• Equivalent lengths (m and cm)<br>• Equivalent lengths (mm and cm) |

| | 3AS-1 | 3AS-2 | 3AS-3 |
|---|---|---|---|
| RTP Criteria | **Calculate complements to 100** | **Add and subtract up to three-digit numbers using columnar methods.** | **Manipulate the additive relationship:**<br>**Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure.**<br>**Understand and use the commutative property of addition, and understand the related property for subtraction.** |
| White Rose Maths Small Steps | This is not explicitly covered in Year 3; if pupils need extra support then look back to **Year 2 Autumn 2 Addition and Subtraction** Bonds to 100 (tens and ones) | **Autumn 2 Addition and Subtraction**<br>• Add and subtract 100s<br>• Spot the pattern - making it explicit<br>• Mixed addition and subtraction problems<br>• Add and subtract 2-digit & 3-digit numbers- not crossing 10 or 100<br>• Add 2-digit and 3-digit numbers - crossing 10 or 100<br>• Subtract a 2-digit number from a 3-digit number - crossing 10 or 100<br>• Add two 3-digit numbers - not crossing 10 or 100<br>• Add two 3-digit numbers - crossing 10 or 100<br>• Subtract a 3-digit number from a 3-digit number - no exchange<br>• Subtract a 3-digit number from a 3-digit number - exchange | **Autumn 2 Addition and Subtraction**<br>• Check answers<br>**Spring 2 Money**<br>• Add money<br>• Subtract money<br>• Give change |

| | 3MD-1 | |
|---|---|---|
| RTP Criteria | **Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.** | |
| White Rose Maths Small Steps | **Autumn 3 Multiplication and Division**<br>• Multiply by 3<br>• Divide by 3<br>• The 3 times-table<br>• Multiply by 4<br>• Divide by 4<br>• The 4 times-table<br>• Multiply by 8<br>• Divide by 8<br>• The 8 times-table<br>**Spring 1 Multiplication and Division**<br>• Comparing statements<br>• How many ways? | |

| | 3F-1 | 3F-2 | 3F-3 | 3F-4 |
|---|---|---|---|---|
| RTP Criteria | **Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.** | **Find unit fractions of quantities using known division facts (multiplication tables fluency).** | **Reason about the location of any fraction within 1 in the linear number system.** | **Add and subtract fractions with the same denominator, within 1** |
| White Rose Maths Small Steps | **Summer 1 Fractions**<br>• Making the whole<br>• Tenths | **Summer 1 Fractions**<br>• Fractions of a set of objects (1)<br>• Fractions of a set of objects (2)<br>• Fractions of a set of objects (3) | **Summer 1 Fractions**<br>• Count in tenths<br>• Fractions on a number line<br>• Compare fractions<br>• Order fractions | **Summer 1 Fractions**<br>• Add fractions<br>• Subtract fractions |

| | 3G-1 | 3G-2 |
|---|---|---|
| RTP Criteria | **Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.** | **Draw polygons by joining marked points, and identify parallel and perpendicular sides.** |
| White Rose Maths Small Steps | **Summer 3 Geometry : Properties of Shape**<br>• Turns and angles<br>• Right angles in shapes<br>• Recognise and describe 2-D shapes | **Summer 3 Geometry : Properties of Shape**<br>• Parallel and perpendicular<br>• Recognise and describe 2-D shapes |

| | 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 |

| | 4NPV-1 | 4NPV-2 | 4NPV-3 | 4NPV-4 |
|---|---|---|---|---|
| RTP Criteria | **Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.** | **Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.** | **Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each** | **Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.** |
| White Rose Maths Small Steps | **Autumn 4 Multiplication and Division**<br>• Multiply by 10<br>• Multiply by 100<br>• Divide by 10<br>• Divide by 100 | **Autumn 1 Place Value**<br>• 1000s, 100s, 10s and 1s<br>• Partitioning | **Autumn 1 Place Value**<br>• Round to the nearest 100<br>• The number line to 10,000<br>• 1,000 more or less<br>• Compare 4-digit numbers<br>• Order numbers<br>• Round to the nearest 1,000 | This should be addressed when looking at charts in **Summer 4 Statistics** or **Spring 1 Multiplication and Division** |

| | 4NF-1 | 4NF-2 | 4NF-3 |
|---|---|---|---|
| RTP Criteria | **Recall multiplication and division facts up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number.** | **Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.** | **Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)** |
| White Rose Maths Small Steps | **Autumn 3 Multiplication and Division**<br>• Multiply by 10<br>• Divide by 10<br>• Multiply and divide by 6<br>• 6 times-table and division facts<br>• The 3 times-table<br>• Multiply and divide by 9<br>• 9 times-table and division facts<br>• Multiply and divide by 7<br>• 7 times-table and division facts<br>**Spring 1 Multiplication and Division**<br>• 11 and 12 times-table<br>• Multiply 3 numbers<br>• Factor pairs | **Autumn 3 Multiplication and Division**<br>• Divide 2-digits by 1 digit (1)<br>• Divide 2-digits by 1 digit (2) | These strategies are built in within **Autumn 2 Addition and Subtraction, Autumn 4 Multiplication and Division** and **Spring 1 Multiplication and Division** rather than dealt with as separate steps |

| | 4MD-1 | 4MD-2 | 4MD-3 |
|---|---|---|---|
| RTP Criteria | **Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.** | **Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.** | **Understand and apply the distributive property of multiplication.** |
| White Rose Maths Small Steps | **Autumn 4 Multiplication and Division**<br>• Multiply by 10<br>• Multiply by 100<br>• Divide by 10<br>• Divide by 100 | **Autumn 3 Multiplication and Division**<br>• Multiply by 10<br>• Divide by 10<br>• Multiply and divide by 6<br>• 6 times-table and division facts<br>• The 3 times-table<br>• Multiply and divide by 9<br>• 9 times-table and division facts<br>• Multiply and divide by 7<br>• 7 times-table and division facts<br>**Spring 1 Multiplication and Division**<br>• 11 and 12 times-table<br>• Multiply 3 numbers<br>• Factor pairs | **Spring 1 Multiplication and Division**<br>• Efficient multiplication<br>• Written methods |

| | 4F-1 | 4F-2 | 4F-3 |
|---|---|---|---|
| RTP Criteria | **Reason about the location of mixed numbers in the linear number system.** | **Convert mixed numbers to improper fractions and vice versa.** | **Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.** |
| White Rose Maths Small Steps | **Spring 3 Fractions**<br>• Count in fractions<br>• Fractions greater than 1 | **Spring 3 Fractions**<br>• Count in fractions<br>• Fractions greater than 1 | **Spring 3 Fractions**<br>• Add 2 or more fractions<br>• Subtract 2 fractions<br>• Subtract from whole amounts |

| | 4G-1 | 4G-2 | 4G-3 |
|---|---|---|---|
| RTP Criteria | **Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.** | **Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.** | **Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.** |
| White Rose Maths Small Steps | **Summer 6 Geometry : Position & Direction**<br>• Describe position<br>• Draw on a grid<br>• Move on a grid<br>• Describe movement on a grid | **Autumn 3 Measurement : Length and Perimeter**<br>• Measure perimeter<br>• Perimeter on a grid<br>• Perimeter of a rectangle<br>• Perimeter of rectilinear shapes<br>**Summer 5 Geometry : Properties of Shape**<br>• Triangles<br>• Quadrilaterals | **Summer 5 Geometry : Properties of Shape**<br>• Lines of symmetry<br>• Complete a symmetric figure |

| | 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 |

| | 5NPV-1 | 5NPV-2 | 5NPV-3 | 5NPV-4 | 5NPV-5 |
|---|---|---|---|---|---|
| RTP Criteria | **Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01** | **Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.** | **Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.** | **Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.** | **Convert between units of measure, including using common decimals and fractions.** |
| White Rose Maths Small Steps | **Spring 3 Decimals and Percentages**<br>• Understand thousandths<br>• Thousandths as decimals | **Spring 3 Decimals and Percentages**<br>• Decimals up to 2 d.p. | **Spring 3 Decimals and Percentages**<br>• Rounding decimals<br>• Order and compare decimals | This should be addressed when looking at charts in **Autumn 3 Statistics** | **Spring 3 Decimals and Percentages**<br>• Decimals as fractions (1)<br>• Decimals as fractions (2)<br>**Summer 4 Measurement : Converting Units**<br>• Kilograms and kilometres<br>• Millimetres and millilitres<br>• Metric units<br>• Imperial units<br>• Converting units of time<br>• Timetables |

| | 5NF-1 | 5NF-2 |
|---|---|---|
| RTP Criteria | **Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.** | **Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).** |
| White Rose Maths Small Steps | **Autumn 4 Multiplication and Division**<br>• Multiples<br>• Factors<br>• Common factors<br>• Prime numbers<br>• Square numbers<br>**Spring 1 Multiplication and Division**<br>• Multiply 2-digits by 1-digit<br>• Multiply 3-digits by 1-digit<br>• Multiply 4-digits by 1-digit<br>• Multiply 2-digits (area model)<br>• Multiply 2-digits by 2-digits<br>• Multiply 3-digits by 2-digits<br>• Multiply 4-digits by 2-digits<br>• Divide 3-digits by 1-digit<br>• Divide 3-digits by 1-digit<br>• Divide 3-digits by 1-digit | These strategies are built in within **Spring 3 Decimals and Percentages** and **Summer 1 Decimals** rather than dealt with as separate steps |

| | 5MD-1 | 5MD-2 | 5MD-3 | 5MD-4 |
|---|---|---|---|---|
| RTP Criteria | **Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.** | **Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.** | **Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.** | **Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.** |
| White Rose Maths Small Steps | **Autumn 4 Multiplication and Division**<br>• Multiply by 10, 100 and 1,000<br>• Divide by 10, 100 and 1,000<br>• Multiples of 10, 100 and 1,000<br>**Summer 1 Decimals**<br>• Multiplying decimals by 10, 100 and 1,000<br>• Dividing decimals by 10, 100 and 1,000 | **Autumn 4 Multiplication and Division**<br>• Multiples<br>• Factors<br>• Common factors<br>• Prime numbers<br>• Square numbers | **Spring 1 Multiplication and Division**<br>• Multiply 4-digits by 1-digit | **Spring 1 Multiplication and Division**<br>• Divide 4-digits by 1-digit<br>• Divide with remainders |

| | 5F-1 | 5F-2 | 5F-3 |
|---|---|---|---|
| RTP Criteria | **Find non-unit fractions of quantities.** | **Find equivalent fractions and understand that they have the same value and the same position in the linear number system.** | **Recall decimal fraction equivalents for $\frac{1}{4}, \frac{1}{2}, \frac{1}{5}$ and $\frac{1}{10}$ and for multiples of these proper fractions.** |
| White Rose Maths Small Steps | **Spring 2 Fractions**<br>• Fraction of an amount<br>• Using fractions as operators | **Spring 2 Fractions**<br>• Equivalent fractions<br>• Compare fractions less than 1<br>• Order fractions less than 1 | **Spring 3 Decimals and Percentages**<br>• Decimals as fractions (1)<br>• Decimals as fractions (2)<br>• Equivalent FDP |

| | 5G-1 | 5G-2 |
|---|---|---|
| RTP Criteria | **Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.** | **Compare areas and calculate the area of rectangles (including squares) using standard units.** |
| White Rose Maths Small Steps | **Summer 2 Geometry : Properties of Shape**<br>• Measuring angles in degrees<br>• Measuring with a protractor (1)<br>• Measuring with a protractor (2)<br>• Drawing lines and angles accurately | **Autumn 5 Measurement : Perimeter and Ares**<br>• Area of rectangles<br>• Area of compound shapes<br>• Area of irregular shapes |

| | 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 | | | | | | |

| | 6NPV-1 | 6NPV-2 | 6NPV-3 | 6NPV-4 |
|---|---|---|---|---|
| RTP Criteria | **Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).** | **Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.** | **Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.** | **Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.** |
| White Rose Maths Small Steps | **Spring 1 Decimals**<br>• Multiply by 10, 100 and 1,000<br>• Divide by 10, 100 and 1,000<br>**Spring 4 Measurement : Converting Units**<br>• Convert metric measures | **Autumn 1 Place Value**<br>• Numbers to 10 million<br>**Spring 1 Decimals**<br>• Three decimal places | **Autumn 1 Place Value**<br>• Compare and order any number<br>• Round any number<br>• Negative numbers | Reading scales is embedded in context rather than taught as separate steps, for example in **Year 6 Summer 1 Statistics** and throughout **Measurement** blocks in all year groups, |

| | 6AS/MD-1 | 6AS/MD-2 | 6AS/MD-3 | 6AS/MD-4 |
|---|---|---|---|---|
| RTP Criteria | **Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).** | **Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.** | **Solve problems involving ratio relationships.** | **Solve problems with 2 unknowns.** |
| White Rose Maths Small Steps | This is addressed within **Autumn 2 Addition, Subtraction, Multiplication and Division** where pupils observe relationships and choose appropriate strategies. | **Autumn 2 Addition, Subtraction, Multiplication and Division**<br>• Reason from known facts | **Spring 6 Ratio**<br>• Using ratio language<br>• Ratio and fractions<br>• Introducing the ratio symbol<br>• Calculating ratio<br>• Using scale factors<br>• Calculating scale factors<br>• Ratio and proportion problems | **Spring 3 Algebra**<br>• Find pairs of values (1)<br>• Find pairs of values (2) |

| | 6F-1 | 6F-2 | 6F-3 |
|---|---|---|---|
| RTP Criteria | **Recognise when fractions can be simplified, and use common factors to simplify fractions.** | **Express fractions in a common denomination and use this to compare fractions that are similar in value.** | **Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.** |
| White Rose Maths Small Steps | **Autumn 3 Fractions**<br>• Equivalent fractions<br>• Simplify fractions<br>• Four rules with fractions | **Autumn 3 Fractions**<br>• Fractions on a number line<br>• Compare and order (denominator)<br>• Add fractions<br>• Subtract fractions<br>• Mixed addition and subtraction<br>• Four rules with fractions | **Autumn 3 Fractions**<br>• Fractions on a number line<br>• Compare and order (denominator)<br>• Compare and order (numerator) |

| | 6G-1 | |
|---|---|---|
| RTP Criteria | **Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.** | |
| White Rose Maths Small Steps | **Summer 2 Geometry : Properties of Shape**<br>• Draw shapes accurately<br>• Draw nets of 3-D shapes<br><br>The White Rose schemes follow the National Curriculum and address area within **Year 5 Autumn 5 Measurement : Perimeter and Area** | |