Navigating our way through Mathematics

Mathematics – NCETM supporting White Rose White Rose resources alone

Year	Autumn 1 6 weeks 3 days	Autumn 2 7 weeks 3 days	Spring 1 6 weeks 2 days	Spring 2 4 weeks 3 days	Summer 1 6 weeks *(2 bank holidays)*	Summer 2 7 weeks
N	- Saying number words in sequence - Counting with 1:1 correspondence - Cardinality - Comparing size (length and height) - 2D shapes - Matching and sorting	- Subitising to 3 - Subitising using counters and die frames - Subitising using different manipulatives - Identifying and matching numerals to 3 - Conservation - 2D shapes - Positional language - Revise	- Saying number words in sequence - Cardinality and conservation - Subitising with spatial patterns with 3 dots - Identifying and matching numerals to 5 - Comparing size, mass and capacity - Colours and patterns	- Comparing 2 sets (more/fewer than) - Comparing and sorting 2 sets (more/fewer than) - Comparing sets and identifying equal amounts - Recording number in different ways - Sequencing events	- Conceptual subitising - Partitioning quantities - Comparing quantities (more/fewer than), including staircase pattern (one more) - Colours and patterns	- Identify and continue AB patterns - Identify and continue AB patterns that vary in size, orientation, etc. - Create AB patterns and discuss properties - Positional language - Revise

R	**Number and Numerical patterns (NCETM)** - Subitising to 3 - Counting sequence to 5 - Composition to 3 - Subitising to 4 - Comparing two sets (more/fewer than) **Shape, Space and Measure (WRM)** - Matching and sorting similar attributes - Matching and sorting in different ways - Identify, copy and continue AB patterns - Create AB patterns - Night & Day and other routines	**Number and Numerical patterns (NCETM)** - Counting and representing to 5 - Comparing groups of 3, identifying equal/too many/too few - Identify 'parts' making a 'whole'' - Composing/decomposing sets to 5 - Counting and cardinality to 5 **Shape, Space and Measure (WRM)** - Compare and order by size - Compare and order by mass - Compare and order by capacity - Positional language - Circles - Triangles - Squares and rectangles	**Number and Numerical patterns (NCETM)** - Subitising arrangements to 6 - Order to 5 - Partitioning 5 into different parts - Representations to 7 - Comparing quantities (more/fewer than and equal) **Shape, Space and Measure (WRM)** - Compare and order by size - Compare and order by mass - Compare and order by capacity - Time order and sequencing - 3D shapes - Properties of shapes	**Number and Numerical patterns (NCETM)** - Pattern of the counting system to 10 (one more/one less) - Order and compare numbers to 10 - Conceptual subitising to 7 - Double patterns - Even numbers as two equal parts **Shape, Space and Measure (WRM)** - Identifying complex patterns - Copy and continue complex patterns - Complex patterns in the environment - Creating complex patterns	**Number and Numerical patterns (NCETM)** - Counting strategies for larger sets, sets that cannot be seen and moved - Subitising double patterns to 10 - Composition of 5 - Composition of 10 - Positioning numbers on a number track **Shape, Space and Measure (WRM)** - Selecting shapes for a purpose - Rotating and manipulating shapes - Shape arrangements and positional language - Identifying 2D shapes within 3D shapes - Composing and decomposing shapes	**Number and Numerical patterns (NCETM)** - Conceptual subitising to 10 - Automatic recall of number bonds to 5 - Number bonds to 10 - Comparing quantities (more than/fewer than) and magnitude - Patterns in number - Counting and rardinality to 20 **Shape, Space and Measure (WRM)** - Units of repeat and pattern rules - Patterns and relationship between numbers and shapes - Spatial awareness and viewpoint - Giving instructions to build simple models - Representing maps using models - Creating maps of familiar places - Creating maps of story situations

1	Addition & subtraction **Counting within 100 (7 weeks)** **1.9 Composition of numbers: 20-100**	Number & Place Value **Comparison of quantities and part-whole relationships (3 weeks)** **1.1 Comparison of quantities and measures** **1.2 Introducing 'whole' and 'parts': part-part-whole** Number & Place Value **Numbers 0-5 (2 weeks)** **1.3 Composition of numbers: 0–5**	Shape **Recognise, compose, decompose and manipulate 2D and 3D shapes (3 weeks)** **Ready to progress 1G-2 and 1G-1** Number & Place Value **Number 0-10 (3 weeks)** **1.4 Composition of numbers: 6 to 10**	Addition & subtraction **Additive Structures (4 weeks)** **1.5 Additive structures: introduction to aggregation and partitioning** **1.6 Additive structures: introduction to augmentation and reduction** Addition & subtraction **Addition and subtraction facts within 10 (2 weeks)** **1.7 Addition and subtraction: strategies within 10**	Addition & subtraction **Addition and subtraction facts within 10 (1 week)** **1.7 Addition and subtraction: strategies within 10** Number & Place Value **Numbers 0-20 (4 weeks)** **1:10 Composition of numbers: 11-19** Geometry **Position and Direction (1 week)** **White rose maths**	Measurement **Unitising and coin recognition (5 weeks)** **2.1 Counting, unitising and coins** Measurement **Time (2 weeks)** **White rose maths**

2	Number & Place value **Numbers 10-100 (4weeks)** **1.8 Composition of numbers: multiples of 10 up to 100** **1.9 Composition of numbers: 20-100** Addition and Subtraction **Calculations within 20 (2 weeks)** **1.11 Addition and subtraction: bridging 10**	Addition and Subtraction **Fluently add and subtract within 10 (1 week- Recap from year 1)** **Ready to progress 2NF-1** **Addition and subtraction of 2 digit numbers (2 weeks)** **1.13 Calculation 2 digit +/- single digit** **1.14 Calculation 2 digit +/- tens** Multiplication and Division **Introduction to multiplication (2 weeks)** **2.2 Structures: multiplication representing equal groups**	Multiplication and Division **Introduction to multiplication contnd (5 weeks)** 2.3 Times tables: groups of 2 and commutativity (part 1) 2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1 2.5 Commutativity (part 2), doubling and halving Multiplication and Division **Introduction to Division structures (2 weeks)** **2.6 Structures: quotitive and partitive division**	Shape **Shape (2 weeks)** **Ready to progress 2G-1** Addition and Subtraction **Addition and subtraction of 2 digit numbers (3 weeks)** **1.15 Addition: two-digit and two-digit numbers** **1.16 Subtraction: two-digit and two-digit numbers**	Measurement **Money (1 week)** **White rose maths** Fractions **Fractions (2 weeks)** **3.0 Guidance on the teaching of fractions in Key Stage 1** Measurement **Time (1 week)** **White rose maths** Measurement **Position and direction (1 week)** **White rose maths**	Multiplication and Division **Multiplication and Division (3 weeks)** **2.5 Commutativity (part 2), doubling and halving** **2.6 Structures: quotitive and partitive division** Measurement **Capacity, Volume and Mass** **(2 weeks)** **White rose maths**

3	Addition & subtraction **Adding and subtracting across 10** **1.11 Addition and subtraction: bridging 10 (2 weeks)** Number and Place Value **Numbers 1000** **1.17 Composition and Calculation: 100 and bridging 100 (5 weeks)**	Number and Place Value **Numbers 1000** **1.18 Composition and calculation: three-digit numbers (4 weeks)** Addition and Subtraction **Column Addition Pre-teach** **1 week**	Geometry **Right Angles Ready to progress 3G-1** (2 weeks) Addition and Subtraction **Manipulating the additive relationship and securing mental calculation** **1.19 Securing Mental Strategies: calculation up to 999** (4 weeks)	Addition and Subtraction **Column Addition Revisit** **1.20 Algorithms: column addition (2 weeks)** Multiplication and Division **2,4,8 times tables** **2.7 Times tables: 2, 4 and 8 and the relationship between them (3 weeks)** Addition and Subtraction **Column Method** **1.21 Algorithms: column subtraction (1week)**	Fractions **Unit Fractions** **3.1 Preparing for fractions: the part whole relationship** **3.2 Unit fractions: identifying, representing and comparing** **(5 weeks)**	Fractions **Non-unit fractions (3 weeks)** **3.3 Non-unit fractions: identifying, representing and comparing** **3.4 Adding and subtracting within one whole** Shape **Parallel and perpendicular sides in polygons (2 weeks)** **Ready to progress 3G-2** Measurement **Time** **Whiterose maths** **(1 week)**

4	Addition & subtraction **Review of column addition and subtraction (3 weeks)** 1.20 Algorithms: column addition 1.21 Algorithms: column subtraction Number & Place Value **Numbers to 10,000 (5 weeks)** 1.22 Composition and calculation: 1,000 and four-digit numbers.	Shape **Perimeter (2 weeks)** 2.16 Multiplicative contexts: area and perimeter 1 Multiplication and Division **3,6,9 times table (4 weeks)** 2.8 Times Tables: 3, 6 and 9, and the relationship between them	Multiplication and Division **7 times tables and patterns (2 weeks)** 2.9 Times Tables: 7 and patterns within / across times tables Multiplication and Division **Understanding and manipulating multiplicative relationships (5 weeks)** 2.10 Connecting multiplication and division, and the distributive law 2.13 Calculation: multiplying and dividing by 10 and 100	Geometry **Coordinates (2 weeks)** Ready to progress criteria 4G-1 Fractions **Review of Fractions (1week)** **3.1 Preparing for fractions: the part whole relationship** **3.5 Working across one whole: improper fractions and mixed numbers** Fractions **Fractions greater than 1 (1 week)** **3.5 Working across one whole: improper fractions and mixed numbers**	Fractions **Fractions greater than 1 CONTND (4 weeks)** **3.5 Working across one whole: improper fractions and mixed numbers** Shape **Symmetry in 2D shapes (2 weeks)** Ready to progress 4G-3	Measurement **Time (1 week)** White Rose https://www.ncetm.org.uk/classroom-resources/cp-year-4-unit-11-time/ Multiplication and Division **Division with Remainders (2 weeks)** **2.12 Division with remainders**

5	Fractions **Decimal fractions (5 weeks)** 1.23 Composition and calculation: tenths 1.24 Composition and calculation: hundredths and thousandths Addition and Subtraction (2 weeks) 1.25 Addition and subtraction: money	Number Place Value (2 weeks) 1.27 Negative numbers: counting, comparing and calculating Multiplication & Division (5 weeks) 2.14 Multiplication: partitioning leading to short multiplication	Multiplication & Division (1 week) 2.14 Multiplication: partitioning leading to short multiplication Shape (5 weeks) 2.16 Multiplicative contexts: area and perimeter 1 2.17 Structures: using measures and comparison to understand scaling	Number & Place Value (3weeks) 2.29 Decimal place value knowledge, multiplication and division 2.19 Calculation: x/÷ decimal fractions by whole numbers Multiplication & Division (2weeks) 2.20 Multiplication with three factors and volume	Multiplication & Division (2 weeks) 2.21 Factors, multiples, prime numbers and composite numbers Fractions (4 weeks) 3.6 Multiplying whole numbers and fractions	Fractions (3weeks) 3.7 Finding equivalent fractions and simplifying fractions 3.10 Linking fractions, decimals and percentages Number and place Value 2 weeks 5NPV-5 Page 229 Angles (3 weeks) Ready to progress 5G1

6	Addition and Subtraction/ Division and multiplication **Calculating using knowledge of structures (6 weeks)** 1.28 Common structures and the part-part-whole relationship 1.29 Using equivalence and the compensation category to calculate **Multiples of 1000 (1 week)** **1.26 Multiples of 1,000 up to 1,000,000**	Number and Place Value **Multiples of 1000 (1week)** **1.26 Multiples of 1,000 up to 1,000,000** **Numbers up to 10,000,000 (4weeks)** **1.30 Numbers up to 10,000,000** Geometry **Draw, compose and decompose shapes (2 weeks)** **2.30 Multiplicative contexts: area and perimeter 2**	Addition and Subtraction/ Division and multiplication/ other **Multiplication and division (4 weeks)** **2.18 Using equivalence to calculate** **2.23 Multiplication strategies for larger numbers and long multiplication** **2.24 Division: dividing by two-digit numbers** **2.25 Using compensation to calculate** Other **Area, perimeter, position and direction (2 weeks)** **2.30 Multiplicative contexts: area and perimeter 2**	Fractions **Fractions and percentages (6 weeks)** **3.7 Finding equivalent fractions and simplifying fractions** **3.8 Common denomination: more adding and subtracting** **3.9 Multiplying fractions and dividing fractions by a whole number** **3.10 Linking fractions, decimals and percentages**	Statistics (Week 1) **KS2 Assessments** **Ratio and proportion (2 weeks)** **2.27 Scale factors, ratio and proportional reasoning**	**Calculating using knowledge of structures (1 week)** **1.29 Using equivalence and the compensation property to calculate** **Solving problems with two unknowns (2 weeks)** **1.31 Problems with two unknowns** **Order of operations (1 week)** **2.22 Combining multiplication with addition and subtraction** **2.28 Combining division with addition and subtraction** **Mean average (1 week)** **2.26 Mean average and equal shares**