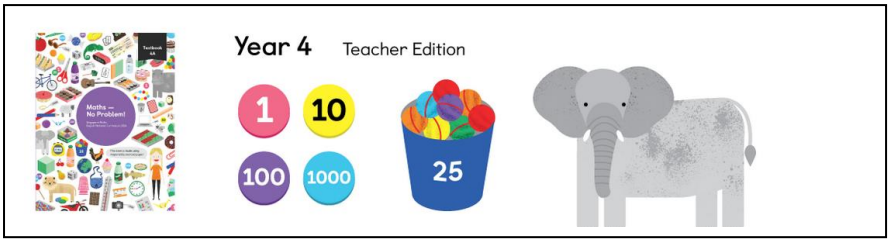

Ready to Progress?

Above each unit is a copy of the Ready to Progress Criteria.

Access Maths Guidance for hyperlinks to teacher guidance, assessment questions & supporting materials, inc PowerPoints for pre-teaching & interventions.

Hyperlink to teacher guidance: https://www.gov.uk/government/publications/teaching-mathematics-in-primary-schools

Hyperlink to supporting resources (for intervention/pre-teaching): https://www.ncetm.org.uk/classroom-resources/exemplification-of-ready-to-progress-criteria/

Hyperlink to the NCETM curriculum planning: https://www.ncetm.org.uk/classroom-resources/cp-year-4-curriculum-map/

Chapter	Topic
	Textbook 4A
1	**Numbers to 10000** • Count to 10000 (*inc. finding 1000 more or less than any given number*) – to continue through f/fluency • Count in thousands, hundreds, tens and ones forward/backward through zero, inc negative numbers (to continue through f/fluency) • Count in twenty-fives (f/fluency) • Count in sixes, sevens and nines (f/fluency) • Tell the number that a digit stands for *in a four-digit number (question throughout the year to keep checking)* • *Identify and represent numbers using different representations inc concrete & on part/whole and bar models* • Compare and arrange *(compare)* numbers within 10000, inc equality and inequality symbols • Describe and complete number patterns • Round numbers (*to the nearest 10, 100 or 1000)* and estimate sum and difference (encourage estimation throughout year) • *Solve a range number and practical problems involving positive numbers* • *Read Roman numerals to 100 (introduced in Roman topic in Y3 and encountered on clocks – continue to expose across the year/topics/curriculum as opportunities arise*

2	**Addition and Subtraction** **Represent with proportional bar models throughout. Represent FIRST!** • Add numbers without regrouping *(4 digit numbers using formal column method where appropriate and show understanding with manipulatives) – promote evaluation of most efficient strategy & continue to promote mental first.* ***The focus here should be on the use of part whole diagrams and PV counters to ensure a deep understanding, this is more important than the lay out and 'procedural fluency'*** • Add numbers with regrouping *(4 digit numbers using formal column method where appropriate and show understanding with manipulatives)* • Add numbers mentally – maintain this over year & inc in f/fluency • Ensure children understand and can represent the different subtraction structures, 'difference' and 'take away' • Subtract numbers without regrouping *(4 digit numbers using formal column method where appropriate and show understanding with manipulatives) – time to evaluate most efficient strategy.* ***The focus here should be on the use of part whole diagrams & PV counters to ensure a deep understanding, this is more important than the lay out and 'procedural fluency'*** • Subtract numbers with regrouping *(4 digit numbers using formal column method where appropriate and show understanding with manipulatives) – always evaluate when mental more efficient, or other strategies such as compensation.* • Subtract numbers mentally – continue throughout year in in fluently • *Estimate and use inverse operations to check understanding (promote estimation throughout year for calculations).* • Solve problems involving addition and subtraction (*two step problems deciding which operations to use and why*) – ensure bar model is embedded as key representation. NCETM Mastery Professional Development Materials for addition and subtraction: https://www.ncetm.org.uk/resources/50640#yr4
3	**Multiplication and Division** **Look carefully at the images used in MNP as they make links with learning from year 3.** Children need to develop multiple ways to access and apply tables facts through understanding relationships – deep understanding of **links to repeated addition.** Use practical apparatus and visual images to help reveal connections and build visual representations. Daily practice of rolling numbers – making explicit links to skip counting (fingers). Use TTRS to practice outside of maths lessons. Key skills required in order to build fluency with multiplication: Addition & subtraction, partitioning, doubling/halving, using known facts (using known addition facts and applying to multiples of ten and 100), bridging (using known facts to ten).

	Division: Use the **array** throughout as a key image and **question about related division facts**. Return to it regularly. Ensure understanding of the difference between grouping and sharing. • Multiply by 6 • Multiply by 7 • Multiply by 9 • Multiply by 11 • Multiply by 12 • Divide by 6 • Divide by 7 • Divide by 9 • Divide by 11 • Divide by 12 • Divide to find quotient and remainder • Solve problems involving multiplication and division NCETM Mastery Professional Development Materials for multiplication and division: https://www.ncetm.org.uk/resources/52830#yr4
4	**Further Multiplication and Division** • Multiply by 0 and 1; divide by 1 • Multiply together three numbers (associative law – post it notes) • Multiply without regrouping (2- and 3-digit by 1-digit, including formal written layout) • Multiply with regrouping (2- and 3-digit by 1-digit, including formal written layout) • Divide without regrouping • Divide with regrouping • Find the quotient and remainder in division • Solve problems involving multiplication and division (*including using the distributive law*)
6	**Fractions** All fraction work MUST refer the 'whole' and to 'equal parts'. It's essential that children understand what a fraction IS and how it can only be a fraction in relation to it's whole. • Count in hundredths • *Know hundredths arise when dividing an object by one hundred and dividing tenths by ten (make link with money) … Numicon hundred board & plates, Dienes – both to be used when teaching tenths and hundredths.* • Write and show mixed numbers on a number line (have fractions number line around class) • Find (*and show using diagrams – squared paper useful & paper strips)* equivalent fractions • Simplify fractions and mixed numbers (from the diagrams – making connections, and through counting in f/fluency – 'What else can it be called?' • Add and subtract fractions *(with the same denominator)* • Solve problems involving fractions

	NCETM Mastery Professional Development Materials for fractions: https://www.ncetm.org.uk/resources/53253
8	**Decimals** Make explicit links with Fractions. Use Numicon and Base 10 to represent. • Recognise and write tenths (*as a decimal)* • Recognise and write hundredths (*as a decimal)* • Compare numbers with the same number of decimal places (*up to two decimal places)* • Complete number patterns involving decimals • Round decimals with one decimal place to the nearest whole number • Recognise and write decimal equivalents of ½ , ¼, and ¾ • Divide a 1- or 2-digit number by 10 • Divide a 1- or 2-digit number by 100 • Solve simple measure and money problems involving decimals
9	**Money** **Ideal opportunity to review place value, any objectives that need consolidating from number and fractions.** **Resources MUST be used by the children and not just demonstrated** (ensure these are ready before the day of the lesson as demand may be high): • Count an amount of money and write it using decimals • Compare different amounts of money • Round money to the nearest £ and to the nearest £10 • Estimate total amounts of money • Solve problems involving money
10	**Mass, Volume and Length** **Ideal opportunity to review place value, any objectives that need consolidating from number and fractions.** **Resources MUST be used by the children and not just demonstrated** (ensure these are ready before the day of the lesson as demand may be high): • Measure and estimate mass (eg g to kg) • Measure and estimate volume • Measure and estimate length • Convert units of mass • Convert units of volume • Convert units of length (including km to m) • Measure perimeter in different ways (starting with counting squares)

11	**Area of figures** • Find the area of figures using square tiles • Find the area and the perimeter of figures in a square grid • Find the areas of squares and rectangles using multiplication Ensure the focus is on the concept. Continue to focus on mental methods of calculation.
12	**Geometry** **Geometry was missed in year 3. Look to their objectives, with a focus on perpendicular and parrallel lines.** • Identify acute and obtuse angles • Compare and order angles • Compare and classify triangles and quadrilaterals • Identify lines of symmetry in 2D shapes • Complete a simple symmetrical figure with respect to a specific line of symmetry
13	**Position and Movement** • Describe positions using coordinates *(in the first quadrant)* • Plot points and form figures on the grid • Describe movement including translation of figures
14	**Roman Numerals** **Roman Numerals will have been first introduced during topic work on the Romans in Y3. Roman numeral charts and dice available. Some good problem solving activities on Nrich and NCETM to supplement. Link to understanding of place value.** • Read and write Roman numerals for 1 to 10 • Read and write Roman numerals to 100
7	**Time** **Time should be addressed through daily routines throughout the year. Encourage all children to wear & use a watch, draw attention to class clock. Bring time into other curriculum areas such as PE.** • Tell the time using 24-hour clock • Change time in minutes to seconds • Change time in hours to minutes • Change time in years to months • Change time in months to years • Find the duration, starting time and finishing time (numberline is a key representation) • Solve problems involving time

This year, cover the following in Science:	
MNP 5	**Statistics/Graphs** • Use a table to show information • Draw, read and interpret tables, picture graphs, bar graphs and line graphs (discrete and continuous data) • Solve problems using information from tables and graphs •