

<u>Overview Document</u> <u>2026/2027</u>	Curriculum Area: Maths	Year Group: 8YA
	Personnel Responsible: PPR	Quality Assured by: CLS

Assessment Cycle	Topic/Unit Title – Big Question	Content Coverage	Skill development and links to other areas of this subject's curriculum
1	What Can We Do With Numbers?	- Place Value - Addition and Subtraction within 10 - Place Value within 20 - Addition and subtraction within 20	This unit develops students' understanding of number and place value within 1,000 through a range of concrete, pictorial and abstract representations. Students identify, represent and estimate numbers using different models, including number lines, and build a secure understanding of the value of each digit in a three-digit number (hundreds, tens and ones). They learn to partition numbers into hundreds, tens and ones, including doing this flexibly, and represent numbers using place value charts and part-whole models, identifying missing parts. Students explore key place value relationships, such as 10 tens being equivalent to 1 hundred, and develop an understanding of number structure by analysing how numbers are composed. They use number lines to represent and estimate values, explaining their reasoning and recognising that estimates may vary. Alongside this, students compare and order numbers using a range of representations and count forwards and backwards in 50s, beginning to recognise multiplicative relationships. They apply their knowledge of place value to find 1, 10 and 100 more or less than a number and use this understanding to support mental calculation strategies, including adding and subtracting 1-digit numbers and multiples of 10 to three-digit numbers, and crossing place value boundaries. Students recall number bonds to 10 and use these to support calculation, including identifying the next multiple of 10 and bridging through tens and hundreds. They also develop fluency in formal written methods for addition and subtraction with two- and three-digit numbers, including exchanging between place value columns, and are encouraged to explain and justify their thinking using appropriate mathematical language throughout.
2	How Are Multiplication and Division Linked?	- Multiplication and division - Measurement - Length and perimeter - Place value 20-50	Students develop fluency in formal written methods for addition and subtraction, including adding 2-digit numbers to 3-digit numbers and subtracting 2- and 3-digit numbers with increasing accuracy. They learn to exchange between place value columns, including exchanging 1 ten for 10 ones and, where necessary, exchanging 1 hundred for 10 tens before further exchanging into ones. Concrete resources such as base ten and place value counters are used alongside written

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			methods to support understanding, with students recognising when an exchange is required. They may use zero as a placeholder where appropriate and are encouraged to estimate answers by rounding and positioning numbers on number lines, discussing whether their calculated answer is greater or less than their estimate and explaining their reasoning. Students build an understanding of the relationships between operations, exploring the inverse relationship between addition and subtraction through part-whole and bar models. They develop early multiplication and division concepts by recognising multiplication as repeated addition and using language such as “groups of” and “lots of,” alongside times tables. They explore commutativity, links between multiplication facts, and strategies such as doubling (e.g. multiplying by 4 or 8), and use arrays and concrete resources to deepen understanding. Students identify whether problems involve sharing or grouping, represent division using practical and pictorial methods, and make links to repeated subtraction and remainders. They apply partitioning to solve multiplication and division problems with 2-digit and 1-digit numbers using expanded methods, using place value counters and models to support. Alongside this, students develop measurement skills, using appropriate tools to measure, compare and convert lengths (mm, cm, m), understanding relationships between units and representing conversions using models such as bar models and number lines, while explaining their thinking in context.
3	How Can We Show Data?	- Fractions A - Measurement Mass and capacity - Fractions B - Measurement Money - Mass and capacity.	This unit develops students' understanding of fractions by focusing on equivalence, representation and fluency across multiple forms. Students explore how unit fractions can be expressed in different ways, using a range of concrete and pictorial models such as fraction walls, bar models, number lines and shapes alongside abstract notation. They identify and generate equivalent fractions by recognising multiplicative relationships between numerators and denominators, using times table knowledge and an understanding of factors and multiples. Students also deepen their understanding of improper fractions and mixed numbers, learning to convert between these forms using visual models, division with remainders and known facts. Throughout, an emphasis is placed on reasoning and making connections between representations to secure conceptual understanding. Building on this foundation, students compare and order fractions (including those greater than one), using strategies such as common denominators, benchmarking

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			against one half and considering the whole number part of mixed numbers. They apply their knowledge to add and subtract fractions with the same denominator and with related denominators, extending to calculations involving mixed numbers and improper fractions. Pictorial representations remain key in supporting understanding before progressing to more efficient written methods. The unit also integrates links to multiplication and division, where students use formal written methods supported by place value models and apply these to solve problems. Finally, students extend their knowledge to decimals, exploring equivalence with fractions (tenths, hundredths and thousandths) and developing fluency in partitioning and representing decimal numbers.
4	How is Maths Related to the World?	• Time • Geometry Shape • Statistics	This unit develops students' understanding of number, measure and geometry through a focus on place value, decimals and their links to fractions and percentages. Students begin by comparing and ordering numbers, using their knowledge of place value to determine the greatest value digits and working systematically across columns when digits are the same. They deepen this understanding through rounding decimals to the nearest whole number and decimal place, using number lines and place value representations to support reasoning. Students then make connections between fractions, decimals and percentages, recognising equivalence and applying this knowledge to convert between forms. Visual models such as fraction walls, hundred squares and bar models support conceptual understanding, ensuring students see these representations as interconnected rather than separate ideas. Alongside number work, pupils apply their mathematical understanding to measures, statistics and geometry. They explore perimeter and area, developing efficient strategies for calculating the perimeter of rectilinear shapes and the area of rectangles and compound shapes, while understanding the difference between linear and square units. In statistics, students interpret and construct line graphs and tables, including two-way tables, to solve problems and draw conclusions. Geometry is further developed through work on angles, where students estimate, measure and calculate angles using protractors and known angle facts, and apply this to find missing angles in shapes and around a point. The unit concludes with work on coordinates, translation and 3D shapes, enabling students to describe position and movement precisely and recognise properties of shapes. Throughout, there is a strong emphasis on reasoning, problem-solving and the use of pictorial representations to build confidence before moving to more formal methods.



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