Expectations Framework for Mathematics
Working at the expected standard (5S): Year 5

To be deemed as working at the expected standard at the end of Year 5 needs to demonstrate that they have met all the standards below as well as having a broad understanding of the rest the curriculum. For an objective to be met a pupil must demonstrate an ability in fluency, reasoning and problem solving aspects of the target.

Statement	Evidence	Secure
Counting and Place value		
Can read and write numbers to at least 1,000,000		
Can identify the place value of any digit in any number up to 1,000,000		
Can order and compare number to at least 1,000,000		
counts forwards and backwards with positive and negative whole numbers including through zero and can interpret negative numbers in context,		
Can round any number to the nearest 10,100,1000, 10,000 and 100,000		
Addition and Subtraction		
Can add and subtract whole numbers with more than 4 digits efficiently and confidently using the formal written method for addition and subtraction		
Add and subtract numbers mentally with increasingly large numbers		
Demonstrate an ability to reason about addition and subtraction		
Multiplication		
Can identify the multiples and factors of a given number		
Can find all factor pairs of a number		
Can find the common factors of two given numbers		
Multiplies numbers of up to 4 digits by 1 or 2 digits using the formal written method		
Divide numbers of up to 4 digits by 1 digit using the formal written method for division		
Multiply and divide larger numbers mentally by applying their addition and subtraction knowledge		
Fractions		
Can compares and orders fractions where the denominators are all multiples of the same number		
Can add and subtract fractions with the same denominator or that have denominators that are multiples of the same number		
Can read and write decimal numbers as fractions e.g. 0.71= 71/100		
Can read, write and compare decimals with up to 3 decimal places		
Add and subtract any fractions with the same denominator		
Recognise and write decimal equivalents to ½, ¼ and ¾		
recognise, read and write any decimal with a tenths equivalent		
Round a decimal with 2dp to the nearest whole number or to 1 dp		
Measurement		
Convert between different units of metric measure (eg kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)		
Measures and calculates the perimeter of composite rectilinear shapes in cm and m		
Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2)		
Shape		
Can draw and measure given angles in degrees		
Distinguishes between regular and irregular polygons through reasoning about equal sides and angles		
Statistics		
Complete, read and interpret information in graphs and tables including line graphs and timetables		

Expectations Framework for Mathematics
Working at Greater Depth (5S+): Year 5

To be deemed as working Greater Depth by the end of Year 5 a child needs to demonstrate that they have met all of the working at targets and that they can reason and problem solve fluently within these objectives. They must also demonstrate that they can meet all of the below statements.

Statement	Evidence	Secure
Counting and Place value		
Solve sophisticated and more complex problems which involve a deeper understanding of ordering and comparing numbers to 1,000,000, counting forwards and backwards in steps, interpreting negative numbers and rounding.		
Addition and Subtraction		
Routinely estimate and check answers to calculations and take a conscientious approach to accuracy and self-correction		
Uses rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy		
Solve problems of increasing complexity with multiple steps, interpreting what is being asked of them and selecting and applying the most efficient methods.		
Solve an increasing number of more complex problems from other parts of the curriculum but by making connections to their addition and subtraction knowledge		
Multiplication and division		
Confidently understand the terminology multiple, factor, prime, prime factor, composite, square, cube and can use these when describing number properties		
Solve a greater number of multiplication and division problems mentally and use reasoning to find the most efficient route to the answer		
Can interpret remainders in context and can round up or down appropriately depending on the context of a problem		
Solve an increasing number of more complex problems which involve multiplication and division drawing on their knowledge of factors, multiples, squares and cubes.		
Solve an increasing number of more complex problems from other parts of the curriculum but by making connections to their multiplication and division knowledge		
Fractions		
Recognise mixed numbers and improper fractions and convert confidently from one to another and write mathematical statements greater than one as mixed fractions		
Can add and subtract fractions with the same denominator or that have denominators that are multiples of the same number and can convert these fractions into mixed fractions if necessary		
Multiply proper fractions by whole numbers confidently and represent these as visual models or representations		
Is beginning to reason more sophisticatedly about the links between fractions, decimals and percentages		
Can solve an increasing number of more complex problems which involve their knowledge of fractions, decimals and percentages		
Measurement		
Solve more complex problems involving perimeter and area including reasoning problems and calculating missing information		
Solve increasingly more complex problems and investigations using their understanding of angles, including finding missing angles based on the properties they know about a rectangle or triangle		
Statistics		
Solve increasingly complex comparison, sum and difference problems using information presented in a wide range of different charts and tables drawing on a range of different curriculum skills e.g. calculations, measurement conversion, time calculations		