In Minet Junior School we use the content overviews from White Rose Maths Hub to base our long term plans. To suit our community and reflect our children, we have edited the White Rose Hub schemes to include progression targets from NCTEM and in addition we use resources and text books from Power Maths.

Objectives in red show targets that are taken from the NCTEM progression maps. Words underlined are mathematical key vocabulary that may be new to children or that they need to learn the meaning of.

Minet Junior School Long term planning Year 6

AUTUMN		
Number : Place Value	Week 1 Week 2	• Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. 6NPV-2 • Round any whole number to a required degree of accuracy. • Use negative numbers in context, and calculate intervals across zero. • Solve number and practical problems that involve all of the above
Calculation: addition, subtraction, multiplication and division	Week 3 Week 4 Week 5 Week 6	• Perform mental calculations, including with mixed operations and large numbers. • Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. • Multiply multi-digit number up to 4 digits by a 2 digit number using the formal written method of long multiplication. • Divide numbers up to 4 digits by a 2 digit whole number using the formal written method of long division, and interpret remainders as whole number remainders or fractions. • Divide numbers up to 4 digits by a 2 digit number using the formal written method of short division, interpreting remainders according to context. • Identify common factors, common multiples and prime numbers. • Use their knowledge of the order of operations to carry out calculations involving the four operations. • Solve problems involving addition, subtraction, multiplication and division. • Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.
Fractions	Week 7 Week 8 Week 9 Week 10	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. 6F-1 • Compare and order fractions, including fractions > 1 6F-2 6F-3 • Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions.

		• Multiply simple pairs of proper fractions, writing the answer in its simplest form • Divide proper fractions by whole numbers • Associate a fraction with division and calculate decimal fraction equivalents • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Generate and describe linear number sequences (with fractions)
Measurement: converting units	Week 11 Week 12	• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp. • Convert between miles and kilometres.

SPRING		
Ratio	Week 1 Week 2	• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. 6AS/MD3 • Solve problems involving similar shapes where the scale factor is known or can be found. • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Algebra	Week 3 Week 4	• Use simple formulae • Generate and describe linear number sequences • Express missing number problems algebraically. • Find pairs of numbers that satisfy an equation with two unknowns. 6AS/MD3 • Enumerate possibilities of combinations of two variables. 6AS/MD4

Decimals	Week 5 Week 6	• Identify the value of each digit in numbers given to three decimal places and multiply numbers by 10, 100 and 1000 giving answers up to 3dp. • Multiply one digit numbers with up to 2dp by whole numbers. • Use written division methods in cases where the answer has up to two decimal places. • Solve problems which require answers to be rounded to specified degrees of accuracy. • Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction
Percentages	Week 7 Week 8	• Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. • Recall and use equivalences between simple FDP including in different contexts
Measurement: Perimeter, Area and Volume	Week 9 Week 10	• Recognise that shapes with the same areas can have different perimeters and vice versa. • Recognise when it is possible to use formulae for area and volume of shapes. • Calculate the area of parallelograms and triangles. • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm^3, m^3 and extending to other units (mm^3, km^3)
Geometry/ Statistics	Week 11 Week 12	• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate the mean as an average.

Minet Junior School Long term planning Year 6

SUMMER		
Geometry	Week 1 Week 2	• Draw 2D shapes using given dimensions and angles. 6G-1 • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. 6G-1 • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Recognise, describe and build simple 3-D shapes, including making nets • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
Geometry: Position and Direction	Week 3 Week 4	• Describe positions on the full coordinate grid (all four quadrants). • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Consolidation and SATS preparation	Week 5	
Investigations and preparations for KS3	Week 6 to Week 12	

Minet Junior School Long term planning Year 6

	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 A**		Number **Fractions B**		Measurement **Converting units**
Spring	**Ratio**		**Algebra**		Number **Decimals**		Number **Fractions, decimals and percentages**		Measurement **Area, perimeter and volume**		**Statistics**	
Summer	Geometry **Shape**				Geometry **Position and direction**		Themed projects, consolidation and problem solving					

*BASED ON CONTENT OVERVIEW