

John Fletcher of Madeley Primary School
Medium term planning – New Curriculum 2014

Year 6

Autumn Term

Mathematical aspect			Curriculum statement
U & A	Unit 1	Place value and rounding Mental and written addition and subtraction of large numbers	<ul style="list-style-type: none"> ● To read, write, order and compare numbers at least to 10,000,000 and determine the value of each digit. ● To round any whole number to a required degree of accuracy. ● To solve number problems and practical problems that involve all of the above. ● To perform mental calculations, including with mixed operations and large numbers. ● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
U & A	Unit 2	Multiples, factors and prime numbers	<ul style="list-style-type: none"> ● To perform mental calculations, including with mixed operations and large numbers. ● To identify common factors, common multiples and prime numbers. ● To solve problems involving addition, subtraction, multiplication and division.
U & A	Unit 3	Written methods for multiplication and division: $HTU \times \div TU$ and $HTU \times \div U$	<ul style="list-style-type: none"> ● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. ● To divide numbers up to 4 digits by a two-digit whole number using the formal written method of short division where appropriate, interpreting remainders according to the context. ● To divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context. ● To solve problems involving addition, subtraction, multiplication and division. ● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.
U & A	Unit 4	Geometry: circles and angles	<ul style="list-style-type: none"> ● To illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. ● To recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
U & A	Unit 5	Measurement	<ul style="list-style-type: none"> ● To solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate. ● To 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 three decimal places. ● To convert between miles and kilometres.
U & A	Unit 6	Multiplication and division: Written methods	<ul style="list-style-type: none"> ● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. ● To divide numbers up to 4 digits by a two-digit whole number using the formal written method of short division where appropriate, interpreting remainders according to the context. ● To divide numbers up to 4 digits by a two-digit whole number using formal written methods of long division and interpret remainders as whole numbers, remainders, fractions or by rounding as appropriate in the context.
U & A	Unit 7	Comparing, ordering and simplifying fractions	<ul style="list-style-type: none"> ● To compare and order fractions, including fractions >1. ● To use common factors to simplify fractions; use common multiples to express fractions in the same denomination.

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U & A	Unit 8	Multiplying decimals by 10, 100 and 1000	<ul style="list-style-type: none"> ● To identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100, 1000 where the answers are up to three decimal places. ● To solve problems which require answers to be rounded to specified degrees of accuracy.
U & A	Unit 9	Calculation: order of operations	<ul style="list-style-type: none"> ● To perform mental calculations, including with mixed operations and large numbers. ● To use their knowledge of the order of operations to carry out calculations involving the four operations. ● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. ● To solve problems involving addition, subtraction, multiplication and division. ● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.
U & A	Unit 10	Algebra: simple formulae	<ul style="list-style-type: none"> ● To express missing number problems algebraically. ● To use simple formulae expressed in words. ● To find pairs of numbers that satisfy number sentences involving two unknowns.
U & A	Unit 11	Geometry: 2D and 3D shapes	<ul style="list-style-type: none"> ● To draw 2D shapes using given dimensions and angles. ● To compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. ● To recognise, describe and build simple 3D shapes, including making nets.
U & A	Unit 12	Statistics: Pie charts	<ul style="list-style-type: none"> ● To interpret and construct pie charts and line graphs and use these to solve problems.