Mathematics Curriculum Overview EYFS

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| **Year group**  **Subject** | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 | |
| Mathematics  Specific Area | EYFS 1 - Numbers, shape, space and measure  Counting. Number recognition, Number rhymes & songs, Colour and size matching, Shape matching, Sorting colours, Sorting sizes. Sorting shapes, Rote counting | EYFS 1 - Discuss large & small. Introduce medium. Order 3 sizes correctly. Snow balls and snowflakes used to organise in to size. Size matching Colour matching shape matching sort according to various attributes. Introduce sized equipment into sand & water. (Tidy up matching skills). Matching pairs of gloves / wellies etc. | EYFS 1 - Continue to use small, medium & large.  Order 3 sizes correctly.  Sort according to various attributes including shape. Introduce sized equipment into sand & water. (Tidy up matching skills).  Introduce first, second & third.  Long, longer, longest, short, shorter, shortest | EYFS 1 - Rote counting. Continue to use first, second & third. – Extend. One to one correspondence according to ability. One more. One less. Try writing 1, 2, 3. Jigsaws (insert), Dominoes – simple matching.  Counting animals and comparing groups. | EYFS 1 - Rote counting.  Measuring growth of plants using blocks to show it is getting bigger.  Introduce longer and shorter.  Introduce tall and short/ big and little.  One more.  One less. | | EYFS 1 - Extend rote counting.  Make matching pairs – socks, gloves, shoes etc.  Reinforce size & ordering.  Copying numbers to 5 (more if able).  One to one correspondence.  Counting (introduce word ‘altogether’).  Size ordering of chairs, bears, spoons and bowls. |
| EYFS 2 - Counting to 5, 10, 20, 50 then 100 as appropriate for ability of pupils.  Ordering numerals to 5, then 10 then further as appropriate.  Revise colours & introduce terms ‘light’ & ‘dark’ as shades of every colour. 2D shapes. Practical 1 more than and 1 less than – age and ability appropriate. | EYFS 2 - One to one correspondence – at pupil’s own level. Ordering and sorting activities for bigger, smaller etc. 3D shapes linked to Guy Fawkes. Add one more – practical. Take one away – practical, Make groups using decorations, Build upon nursery experience of the concept of ‘altogether’. For those pupils who are ready, make addition and subtraction sentences as a small group. Counting backwards from 10. | EYFS 2 - Rote counting, counting forward & backward.  Making groups of animals & counting them altogether. Making pairs (build upon nursery experience of pairs). Rote counting in 2’s to 10 and beyond. Find a number one more/one less than.  Ordering size. (Use ICT), Sorting according to type. Making sets. | EYFS 2 - Rote counting. Sorting & matching activities Jigsaws (not insert Jigsaws) Matching games & puzzles. Some animals have 2 legs – count in 2’s up to 10. Count forwards & backwards. Written addition and subtraction (+1 or -1). Two more than/2 less than (introduce number line). ICT patterns (colour, shape & number)  Introduce the concept of Money and price. 1p 2p 5p 10p | EYFS 2 - Revise size and shapes  Counting in 2’s up to 20 and beyond.  Counting forwards & backwards.  Rote counting to 100.  Adding and subtracting including age appropriate number sentences. | | EYFS 2 - Revise all shapes and extend previous knowledge. Addition & subtraction mixed calculations. (written form with practical equipment to assist).  Measure length & width of seaside objects using blocks. Revise number recognition. Revise one to one correspondence up to 20 and beyond. |

Mathematics Curriculum Overview Key Stage One

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| Year 1 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number - Place Value**  (5 weeks)  Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least  Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number  Compare numbers using and = signs  Read and write numbers from 1 to 20 in numerals and words  **Number - Addition and Subtraction**  (5 Weeks)  Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer)  Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs  Represent and use number bonds and related subtraction facts within 20  Add and subtract 1-digit and 2-digit numbers to 20, including zero  **Geometry - Shape**  (1 week)  Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]; 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]  **Consolidation**  (1 week) | | **Number - Place Value**  (3 weeks)  Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number  Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least  Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s  Read and write numbers from 1 to 20 in numerals and words  Given a number, identify 1 more and 1 less  **Number - Addition and Subtraction**  (3 weeks)  Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs  Add and subtract 1-digit and 2-digit numbers to 20, including zero  Represent and use number bonds and related subtraction facts within 20  Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9  **Number - Place Value**  (2 weeks)  Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number  Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least  Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s  Given a number, identify 1 more and 1 less  **Measurement – Length and Height**  (2 weeks)  Compare, describe and solve practical problems for: lengths and height; mass/weight; capacity and volume; time  Measure and begin to record the following: lengths and heights; mass/weight; capacity and volume; time  **Measurement – Mass and Volume**  (2 weeks)  Compare, describe and solve practical problems for: lengths and heights; mass/weight; capacity and volume; time  Measure and begin to record the following: lengths and heights; mass/weights; capacity and volume; time | | **Number - Multiplication and Division**  (3 weeks)  **Number - Fractions**  (2 weeks)  **Geometry – Position and Direction**  (1 week)  **Number - Place Value**  (2 weeks)  **Measurement – Money**  (1 week)  **Measurement – Time**  (2 weeks)  **Consolidation**  (1 week) | |

Mathematics Curriculum Overview Key Stage One

For mixed year group teaching this is a starting point for teachers to create their own half termly overview based on the needs of their pupils. Please see year groups objectives for year 1 and year 2 which will be addressed throughout the academic year ensuring that all children have covered objectives for their relevant year group.

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| Year 1/2 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number - Place Value**  (4 weeks)  Year 1 – to 10  Year 2 – to 100  **Number - Addition and Subtraction**  (5 weeks)  Year 1 – to 10  Year 2 – to 100  **Geometry - Shape**  Year 1 - 1 week plus consolidation of place value and addition and subtraction to 20.  Year 2 - 3 weeks geometry | | **Year 1 place value to 50**  (2 weeks)  **Year 2 Measurement – Money**  (2 weeks)  **Number - Multiplication and Division**  (5 weeks)  Year 1 – 3 weeks multiplication and division and 2 weeks place value to 100.  Year 2 -  **Measurement – Length and Height**  (2 weeks)  **Measurement – Mass, Capacity and Temperature**  (3weeks) | | **Number - Fractions**  (3 weeks)  Year 1 - 2 weeks  **Measurement – Time**  (3 weeks)  Year 1 – 2 weeks  **Year 1 place value to 100 – (2 weeks)**  **Year 2 Statistics (2 weeks)**  **Geometry - Position and Direction**  (2 weeks)  Year 1 – 1 week  **Consolidation**  (2 weeks) | |

Mathematics Curriculum Overview Key Stage One

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| Year 2 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number - Place Value**  (4 weeks)  Read and write numbers from 1 to 20 in numerals and words (Y1)  Read and write numbers to at least 100 in numerals and in words  Identify, represent and estimate numbers using different representations, including the number line  Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward  Recognise the place value of each digit in a 2-digit number (tens, ones)  Compare and order numbers from 0 up to 100; use and = signs  **Number - Addition and Subtraction**  (5 weeks)  Represent and use number bonds and related subtraction facts within 20 (Y1) • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100  Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100  Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s, a 2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers  Compare and order numbers from 0 up to 100; use and = signs  **Geometry - Shape**  (3 weeks)  • Identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line  Compare and sort common 2-D and 3-D shapes and everyday objects  Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces  Identify 2-D shapes on the surface of 3-D shapes | | **Measurement – Money**  (2 weeks)  Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value  Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change  **Number - Multiplication and Division**  (5 weeks)  Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the  multiplication (×), division (÷) and equals (=) signs  Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot  Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers  **Measurement – Length and Height**  (2 weeks)  Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels  Compare and order lengths, mass, volume/capacity and record the  results using >, < and =  Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving  numbers, quantities and measures  Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts  **Measurement – Mass, Capacity and Temperature**  (3weeks)  Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels  Compare and order lengths, mass, volume/capacity and record the  results using >, < and = | | **Number - Fractions**  (3 weeks)  **Measurement – Time**  (3 weeks)  **Statistics**  (2 weeks)  **Geometry - Position and Direction**  (2 weeks)  **Consolidation**  (2 weeks) | |

Mathematics Curriculum Overview – Lower Key Stage Two

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| Year 3 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number - Place Value**  (3 Weeks)  Identify, represent and estimate numbers using different representations  Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones)  Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number  Read and write numbers up to 1,000 in numerals and words  Compare and order numbers up to 1,000  **Number - Addition and Subtraction**  (5 Weeks)  Add and subtract numbers mentally, including: • a 3-digit number and ones • a 3-digit number and tens • a 3-digit number and hundreds  Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction  Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction  Estimate the answer to a calculation and use inverse operations to check answers  **Number - Multiplication and Division A**  (4 Weeks)  Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods  how that multiplication of two numbers can be done in any order (commutative) and division on one number by another cannot (Y2)  Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward (Y2) •  Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2)  Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables  Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods | | **Number - Multiplication and Division B**  (3 Weeks)  Recall and use multiplication facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2)  Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing  to formal written methods  Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling  problems and correspondence problems in which n objects are connected to m objects  **Measurement - Length and Perimeter**  (3 Weeks)  Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)  Measure the perimeter of simple 2-D shapes  **Number - Fractions A**  (3 Weeks)  Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators  Compare and order unit fractions, and fractions with the  same denominators  Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators  Measure, compare, add and subtract: lengths (m/cm/mm); mass  (kg/g); volume/capacity (l/ml)  Recognise and show, using diagrams, equivalent fractions with small denominators  **Measurement – Mass and Capacity**  (3 Weeks)  Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) | | **Number - Fractions B**  (2 Weeks)  **Measurement - Money**  (2 Weeks)  **Measurement – Time**  (3 Weeks)  **Geometry – shape**  (2 Weeks)  **Statistics**  (2 Weeks)  **Consolidation**  (1 week) | |

Mathematics Curriculum Overview – Lower Key Stage Two

For mixed year group teaching this is a starting point for teachers to create their own half termly overview based on the needs of their pupils. Please see year groups objectives for year 3 and year 4 which will be addressed throughout the academic year ensuring that all children have covered objectives for their relevant year group.

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| Year 3/4 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number - Place Value**  (3 Weeks)  Year 3 to 1000  Year 4 to 10,000  **Number - Addition and Subtraction**  (5 Weeks)  Year 3 three-digit numbers  year 4 four-digit numbers.  **Number - Multiplication and Division A**  (4 Weeks)  Year 3 revision of of x2x5x10  x3x4x8  Year 4 all multiplication and division fact up to 12x12 | | **Number - Multiplication and Division B**  (3 Weeks)  Year 3 – 2 digit multiplied by 1 digit numbers.  Year 4 – introduction to formal written methods  **Measurement - Length and Perimeter**  (3 Weeks)  Year 3 – perimeter of 2 D shapes, compare add and subtract lengths.  Year 4 – revision of perimeter and introduction to area  **Number - Fractions and Decimals**  (3 Weeks)  Year 3 introduction to tenths as decimals  Year 4 – begin to add and subtract factions and decimals.  **Year 3 Measurement – Mass and Capacity**  **Year 4 Continue with Decimals work**  (3 weeks) | | **Number - Fractions B**  (2 Weeks)  **Measurement - Money**  (2 Weeks)  **Measurement – Time**  Year 3 (3 Weeks)  Year 4 (2Weeks)  **Geometry – shape**  (2 Weeks)  Year 4 (4 Weeks including position and direction)  **Statistics**  (2 Weeks)  Year 4 statistics (1 Week)  **Consolidation**  (1 week) | |

Mathematics Curriculum Overview – Lower Key Stage Two

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| Year 4 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number - Place Value**  (4 Weeks)  Read and write numbers up to 1,000 in numerals and words (Y3)  Identify, represent and estimate numbers using different Representations  Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones) (Y3)  Count in multiples of 6, 7, 9, 25 and 1,000  Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens and ones)  Find 1,000 more or less than a given number  Order and compare numbers beyond 1,000  Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and  place value  Round any number to the nearest 10, 100 or 1,000  **Number – Addition and Subtraction**  (3 Weeks)  Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction  where appropriate  Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why  Estimate and use inverse operations to check answers to a calculation  **Measurement – Area**  (1 Week)  Find the area of rectilinear shapes by counting squares  **Number – Multiplication and Division A**  (3 Weeks)  Recall multiplication and division facts for multiplication tables up to 12 × 12  • Recognise and use factor pairs and commutativity in  mental calculations  Count in multiples of 6, 7, 9, 25 and 1,000  Use place value, known and derived facts to multiply and divide  mentally, including: multiplying by 0 and 1; dividing by 1; multiplying  together three numbers  **Consolidation**  (1 Week) | | **Number – Multiplication and Division B**  (3 Weeks)  Recognise and use factor pairs and commutativity in mental Calculations  Recall multiplication and division facts for multiplication tables up to 12 × 12  Multiply and divide whole numbers and those involving decimals  by 10, 100 and 1,000 (Y5)  Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects  Recognise and use factor pairs and commutativity in mental calculations  Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout  Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers  **Measurement – Length and Perimeter**  (2 weeks)  Convert between different units of measure [for example, kilometre to  metre; hour to minute]  Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres  **Number – Fractions**  (4 weeks)  Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (Y3)  Recognise and show, using diagrams, families of common equivalent fractions  Add and subtract fractions with the same denominator  **Number – Decimals A**  (3 weeks)  Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers  or quantities by 10 (Y3)  Recognise and write decimal equivalents of any number of tenths or hundredths  Compare numbers with the same number of decimal places up to 2 decimal places  Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths  Recognise and write decimal equivalents of any number of tenths or Hundredths  Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10  Recognise and show, using diagrams, families of common equivalent fractions | | **Number – Decimals B**  (2 Weeks)  **Measurement – Money**  (2 Weeks)  **Measurement – Time**  (2 Weeks)  **Consolidation**  (1 Week)  **Geometry – Shape**  (2 Weeks)  **Statistics**  (1 Week)  **Geometry – Position and Direction**  (2 Weeks) | |

Mathematics Curriculum Overview – Upper Key Stage Two

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| Year 5 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number – Place Value**  (3 Weeks)  Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals  Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit  Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000  Solve number problems and practical problems involving the above  **Number – Addition and Subtraction**  (2 Weeks)  Add and subtract numbers mentally with increasingly large numbers  Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 • Add and subtract numbers mentally with increasingly large numbers • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Add and subtract numbers mentally with increasingly large numbers  **Number – Multiplication and Division**  (3 Weeks)  Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers  Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes  Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19  Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)  Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000  Multiply and divide numbers mentally, drawing upon known facts  **Number – Fractions A**  (4 Weeks)  Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths  Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number  Compare and order fractions whose denominators are all multiples of the same number  Add and subtract fractions with the same denominator, and denominators that are multiples of the same number | | **Number – Multiplication and Division B**  (3 Weeks)  Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers  Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context  Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes  **Number – Fractions B**  (2 Weeks)  Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number (Y4)  **Number – Decimals and Percentages**  (3 Weeks)  Read, write, order and compare numbers with up to 3 decimal places  Read and write decimal numbers as fractions  Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths  Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25  Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents  Solve problems involving numbers up to 3 decimal places  Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place  Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per 100”, and write percentages as a fraction with denominator 100, and as a decimal fraction  **Measurement – Perimeter and Area**  (2 Weeks)  Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres  Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm2) and square metres (m2), and estimate the area of irregular shapes  **Statistics**  (2 Weeks)  Solve comparison, sum and difference problems using information presented in a line graph  Complete, read and interpret information in tables, including timetables | | **Geometry – Shape**  (3 Weeks)  **Geometry – Position and directions**  (2 Weeks)  **Number – Decimals**  (3 Weeks)  **Number – Negative numbers**  (1 Week)  **Measurement – Converting Units** (2Weeks)  **Measurement – Volume**  (1 Week) | |

Mathematics Curriculum Overview – Upper Key Stage Two

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| Year 6 | Topic 1 | Topic 2 | Topic 3 | Topic 4 | Topic 5 | Topic 6 |
|  | **Number – Place Value**  (2 Weeks)  Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit  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 the above  **Number – Addition, Subtraction, multiplication and Division**  (5 Weeks)  Solve addition and subtraction multi-step  problems in contexts, deciding which operations and methods to use and why  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  Identify common factors, common multiples and prime numbers  Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication  Perform mental calculations, including with mixed operations and large numbers  Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context  Divide numbers up to four digits by a 2-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  Use their knowledge of the order of operations to carry out calculations involving the four operations  Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy  Perform mental calculations, including with mixed operations and large numbers  **Number - Fractions A**  (2 Weeks)  Use common factors to simplify fractions; use common multiples to express fractions in the same denomination  Compare and order fractions, including fractions > 1  Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions  Identify common factors, common multiples and prime numbers  Use common factors to simplify fractions; use common multiples to express fractions in the same denomination  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Solve problems involving addition, subtraction, multiplication and division  **Number – Fractions B**  (2 Weeks)  Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5)  Multiply simple pairs of proper fractions, writing the answer in its simplest form  Divide proper fractions by whole numbers  Add and subtract fractions with different denominators 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  Solve problems involving addition, subtraction, multiplication and division  Associate a fraction with division and calculate decimal fraction equivalents  **Measurement – Converting Units**  (1 Week)  Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 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 3 decimal places | | **Number- Ratio**  (2 Weeks)  Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts  Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples  Solve problems involving similar shapes where the scale factor is known or can be found  Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts  **Number – Algebra**  (2 Weeks)  Use simple formulae • Generate and describe linear number sequences  Find pairs of numbers that satisfy an equation with two unknowns • Enumerate possibilities of combinations of two variables  Express missing number problems algebraically  • Find pairs of numbers that satisfy an equation with two unknowns  **Number – Decimals**  (2 Weeks)  Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places  Solve problems which require answers to be rounded to specified degrees of accuracy  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Multiply 1-digit numbers with up to 2 decimal places by whole numbers  Use written division methods in cases where the answer has up to 2 decimal places  Solve problems involving addition, subtraction, multiplication and division  **Number – Fractions, Decimals and Percentages**  (2 Weeks)  Use common factors to simplify fractions; use common multiples to  express fractions in the same denomination  Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction  Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts  Compare and order fractions, including fractions >1  Solve problems involving the calculation of percentages and the use of percentages for comparison  **Measurement – Area, Perimeter and Volume**  (2 Weeks)  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 cubic centimetres (cm3) and cubic metres (m3), and extending to other units  **Statistics**  (2 Weeks)  Interpret and construct pie charts and line graphs and use these to solve problems  Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Year 4)  Calculate and interpret the mean as an average | | **Geometry – Shape**  3 weeks  **Geometry – Position and Direction**  (1 Week) | |