**Maths Overview for the Autumn Term**

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| **Reception** | **Year 1** | **Year 2** |
| Children count reliably with numbers from 1 to 20, place them in order.  Children explore characteristics of everyday objects.  Using quantities and objects, they add and subtract 2 single-digit numbers and count on or back to find the answer.  Say which number is one more or one less than a given number.  Children use everyday language to talk about time to solve problems. | Identify and represent numbers using concrete 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 0 or 1, or from any given number.  Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens.  Read and write numbers from 1 to 20 in numerals and words.  Given a number, identify one more and one less.  Count to and across 100, forwards and backwards, beginning with 0 or 1, or from  any given number.  Represent and use number bonds and related subtraction facts within 20.  Read, write and interpret mathematical statements involving addition (+),subtraction (–)  and equals (=) signs.  Solve one-step problems that involve addition and  subtraction, using concrete objects and pictorial  representations, and missing number problems such as 7 = \_ – 9.  Add and subtract one-digit and two-digit numbers to 20, including zero  Recognise and name common 2-D and 3-D shapes, including: 3-D shapes [for example,  cuboids (including cubes), pyramids and spheres] 2-D shapes [for example, rectangles (including squares), circles and triangles] | Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s  Identify, represent and estimate numbers using different representations, including the number line  Recognise the place value of each digit in a 2-digit number(10s, 1s)  Compare and order numbers from 0 up to 100; use <, > and signs  Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward  Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100  Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems  Show that + of two numbers can be done in any order (commutative) and - of one number from another cannot  Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s  Solve problems with addition and subtraction: applying their increasing knowledge of mental and written methods  Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures  Recognise and use signs for pounds (£) and pence (p); combine amounts to make a particular value  Recognise and know the value of different denominations of coins and notes  Find different combinations of coins that equal the same amounts of money  Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change  Solve one-step problems involving X and ÷ by calculating the answer using  concrete objects, pictorial representations and arrays  Calculate mathematical statements for X and ÷ within the X tables and write them using the multiplication (×), division (÷) and equals (=) signs  Solve problems involving X and division, using materials, arrays, repeated addition, mental methods, and X and ÷ facts, including problems in contexts  Recall and use X and ÷ facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers |

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| **Year 3** | **Year 4** |
| Recognise the place value of each digit in a three digit number (hundreds, tens, ones)  Read and write numbers up to 1,000 in numerals  and in words  Identify, represent and estimate numbers using  different representations  Compare and order numbers up to 1,000  Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number  Solve number problems and practical problems  involving these ideas  Add and subtract numbers mentally, including: a  three-digit number and ones, a three-digit number  and tens, a three-digit number and hundreds  Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction  Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction  Estimate the answer to a calculation and use inverse operations to check answers addition and subtraction  Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for  two-digit numbers times one-digit numbers, using mental and progressing to formal written methods  Recall and use multiplication and division facts for the 3, 4 and 8  multiplication tables  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. | Recognise the place value of each digit in a four-digit number (thousands,  hundreds, tens, and ones)  Round any number to the nearest 10, 100 or 1,000  Count in multiples of 6, 7, 9, 25 and 1,000  Identify, represent and estimate numbers using different representations  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  Find 1,000 more or less than a given number  Round any number to the nearest 10, 100 or 1,000  Solve number and practical problems that involve all of the above and with increasingly large positive numbers  Count backwards through zero to include negative numbers  Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero  Add and subtract numbers with up to 4 digits using the formal written  methods of columnar addition and subtraction where appropriate  Solve number and practical problems that involve all of the above and with increasingly large positive numbers  Estimate and use inverse operations to check answers to a calculation  Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why  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  Recall multiplication and division facts for multiplication tables up to12 × 12  Use place value, known and derived facts to X and ÷ mentally, including:  multiplying by 0 and 1; dividing by 1;  multiplying together three numbers  Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. |

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| **Year 5** | **Year 6** |
| 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  Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000  Solve number problems and practical problems  Read roman numerals to 1,000 (m) and recognise years written in roman  numerals  Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero  Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)  Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy  Add and subtract numbers mentally with increasingly large numbers  Estimate and use inverse operations to check answers to a calculation  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why  Complete, read and interpret information in tables, including timetables  Solve comparison, sum and difference problems using information presented in a line graph  Identify multiples and factors, including finding all factor pairs of a number,  and common factors of two numbers  Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers  Establish whether a number up to 100 is prime and recall prime numbers up to 19  Solve problems involving X and ÷ including using their knowledge of factors and multiples, squares and cubes  Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)  Solve problems involving X and ÷ , including scaling by simple fractions and problems involving simple rates  X and ÷ whole numbers and those involving decimals by 10, 100 and 1,000  Measure and calculate the perimeter of composite rectilinear shapes in  centimetres and metres  Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes. | Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit  Solve number and practical problems that involve all of the above  Round any whole number to a required degree of accuracy  Use negative numbers in context, and calculate intervals across zero  Solve addition and subtraction multi-step  problems in contexts, deciding which operations and methods to use and why  Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication  Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context  Identify common factors, common multiples and prime numbers  Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3  Use their knowledge of the of operations to carry out calculations involving the four operations  Perform mental calculations, including with mixed operations and large  numbers  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  Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  Multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, ¼ × ½ = 1/8 )  Divide proper fractions by whole numbers (for example,1/3 ÷ 2 = 1/6)  Use written division methods in cases where the answer has up to two decimal places  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. |