Year 5 Long Term Plan – Autumn term.

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| **Year 5** | **Autumn** |
| **NUMBER** |  |
| **Number and place value** | **Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit**  *e.g. order a set of multi-digit numbers from smallest to largest -*  *37 700, 737 507, 737 570, , 837 570*  **Count forwards or backwards in steps of powers of 10 from any given number up to 1 000 000** *e.g. 197 000, 198 000, 199 000, 200 000, 201 000…*  **Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero** *e.g. count back in threes: 8, 5, 2, -1, -4, -7…*  **Round any number up to 500,000 to the nearest 10, 100 and 1000**  eg *265 946 to the nearest 1000 (266 000)*  **Solve number problems and practical problems that involve number, place value and rounding.** |
| **Addition and subtraction** | **Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)**  **Add and subtract numbers mentally with increasingly large numbers**  *e.g. 15 400 – 2000 = 13 400*  **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**  *e.g. I have read 124 of the* 526 *pages of my book; how many more pages must I read to reach the middle?* |
| **Multiplication and division** | **Continue to practise and apply multiplication tables and related division facts, committing them to memory and using them confidently to make larger calculations.**  **Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers.**  **Multiples of 8: 8,16,24,32,40,48…**  **Factors of 24: 1 x 24; 2 x 12; 3 x 8; 4 x 6.**  **Know and use the vocabulary of prime numbers and composite (non-prime) numbers.**  **Establish whether a number up to 100 is prime and recall prime numbers up to 19, e.g 27 cannot be a prime number as it is also divisible by 3 and 9.**  **Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.**    **Multiply and divide numbers mentally drawing upon known facts e.g. 60×9=6x9x10=540**  **Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 e.g. 456÷100=4.56**  **Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign** |
| **Fractions (including decimals and percentages)** | **Compare and order fractions whose denominators are all multiples of the same number e.g. put these fractions in order from the smallest:**  **5/12, 5/6, 11/12, 2/3 becomes 5/12; 10/12; 11/12; 8/12 so 5/12,2/3,5/6,11/12**  **Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths making links to decimals and measures e.g. 37/100 metre = 0.37m**  **Read and write decimal numbers as fractions e.g. 0.71 = 71/100**  **Mentally add and subtract with:**  **\*tenths e.g. 0.8 - 0.3**  **\*one-digit whole numbers and tenths e.g. 3.4 + 2.6**  **\*complements of 1 e.g. 0.85 + 0.15 = 1**  **Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with denominator hundred, and as a decimal fraction**  **e.g. 43% = 43/100 = 0.43**  **Recognise that percentages are proportions of quantities e.g. 40% of the class are boys; what percentage are girls? as well as operators on quantities e.g. find 40% of 30 children.** |
| **MEASUREMENT** | **Convert between different units of measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) e.g. 15.7cm = 157mm**  **Solve problems involving converting between units of time e.g. write these lengths of time in order, starting with the smallest: 250sec, 90min, ½ hour, 4min**  **Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling** |
| **GEOMETRY** |  |
| **Properties of shapes** | **Identify 3-D shapes, including cubes and other cuboids, from 2-D representations e.g. using isometric paper**  **Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles** |
| **Position and direction** | **To be taught in Spring/ Summer terms.** |
| **STATISTICS** |  |
| **Use and interpret data** | **Complete, read and interpret information in tables, including timetables.** |