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|  | **Term 1** | **Term 2** | **Term 3** |
| **Understanding Number**  **Counting and Number Recognition** | Count, read, write and order numbers to 100, 000 and beyond  Understand place value to 2 decimal places.  Count, read, write and order 2 decimal place decimal numbers  Use and understand square numbers – link with area.  Extend function machines to include the use of any 2 operations from +,x,- or÷.  Understand that a letter can stand for an unknown number.  Know and use multiplication facts to 10 x 10 in solving problems. | Know equivalence of fractions, decimals and %’s.  Calculate % increases and decreases.  Find %’s of multiples and factors of 100  Use a calculator to calculate %’s  Investigate the effect of dividing a number by 10, 100, 1000, expressing the remainder as a fraction, decimal or whole number remainder. | Multiply numbers to 2 decimal places by 1000.  Divide whole numbers by 1000 – including answers with up to 2 decimal places.  Understand square and triangular numbers through spatial arrangements.  Follow simple sets of instructions to generate a sequence. Devise rules for determining sequences.  Understand the effect of using brackets in calculations.  Use the 4 operations to solve more complex word problems and puzzles involving numbers and measures. |
| **Measures** | Convert between all metric units of weight, using up to 3 decimal places as appropriate.  Estimate/ measure/ calculate weight selecting the most appropriate unit in different situations.  Use negative numbers e.g. in context of measurement  Calculate areas of right angled triangles | Time  Read and interpret simple timetables, applying knowledge to solve problems.  Recognise the terms-decade, century and millennium.  Discuss different times in other countries.  Area  Calculate areas of parallelograms, the perimeter of simple shapes, the volumes of cubes and cuboids.  Scale  Appreciate concept of scale to represent lengths and distances.  Use scale in maps and diagrams. | Calculate areas and volumes of composite shapes.  Appreciate the Imperial units of measurement still in common use, and know their rough metric equivalents |
| **Shape and Space** | Draw lines of symmetry on shapes which have several lines of symmetry.  Reflect a 2-d shape about a given line of symmetry.  Classify quadrilaterals according to their properties:  Square, rectangle, rhombus, trapezium, parallelogram | Understand the concepts of similarity and congruence  Describe 3D shapes in terms of faces, edges, vertices.  Visualise 3D shapes from drawn nets.  Measure given angles using a protractor to an accuracy of 1 degree  Perform calculations requiring a knowledge of angle properties of regular 2-d shapes. Eg sum of angles in a triangle = 1800  Estimate given angles to an accuracy of 100 | Use programmable language eg LOGO / PRO- BOT to generate mathematical shapes and designs.  Understand and use bearings in context.  Develop proficiency in use of compass. |
| **Fractions** | Find fractions of quantities where the numerator is not 1.  Understand and convert mixed numbers  eg. 3 ½= 7/2 | Understand equivalence of fractions where the numerator is not 1.  Order fractions with different numerators and denominators.  Add/subtract fractions with same denominator where answer is more than 1 (i.e. mixed numbers)  Add/subtract fractions with different denominators, using knowledge of equivalence |  |
| **Money** |  | Explore the concept of earning and develop an awareness of everyday expenses and the need for budgeting.  Discuss “value for money” in relation to earning. |  |
| **Handling Data** | Design and construct computer databases, and interrogate using 2 criteria.  Recognise need to group data.  Tally data into frequency table with given equal class intervals, and produced grouped frequency chart | Use a numeric system to develop idea of chance based on number of possible outcomes. E.g. Rolling a “2” has 1 chance out of 6.  Design and construct computer databases, and interrogate using 2 criteria. | Construct and interpret line graphs involving continuous data- e.g. time, temperature, distance etc. |
| **Mental Maths** | Estimate answers of all written and calculator calculations. Find simple fractions of quantities, numerator not 1. Find what must be added to a fraction to make the next whole number. Add 4 or more single digit numbers. Add any number to a multiple of 1000. Subtract a multiple of 1000 from any 4 digit number | Find multiples of 10% of quantities, e.g. 30% of 50. Add any two 2 digit numbers, including bridging 10 and 100. Subtract a 2 digit multiple of 10 from any 3 digit number, without bridging the hundred. Subtract a 3 digit multiple of 10 from a 3 digit multiple of 10, without bridging the hundred  Add two 3 digit numbers which are near doubles of multiples of 50. Add a 3 digit number to a 3 digit multiple of 10, without bridging through the hundred | Add/subtract decimals to 1 decimal place without bridging the unit. Find what must be added to a 1 decimal place decimal number greater than 1 to make the next whole number. Multiply a 2 digit multiple of 10 by a single digit. Multiply a 3 digit multiple of 100by a single digit. Multiply a 3 digit number by 100.  Multiply two 2 digit multiples of 10. Divide whole numbers by 100, whole number answers. |