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|  **Progressional Overview Problem Solving Orrets Meadow** | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Place Value** | **Solve problems within play.** |  | **use place value and number facts to solve problems**  | **solve number problems and practical problems involving these ideas** | **solve number and practical problems that involve all of the above and with increasingly large positive numbers**  | **solve number problems and practical problems that involve all of the above**  | **solve number and practical problems that involve all of the above** |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Addition and Subtraction** | **Use number name and symbols when solving a problem****Real life problems.****e.g** **How many cakes if everyone wants one?** | **solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = \* - 9** | **solve problems with** **addition and subtraction:** **\* using concrete objects** **and pictorial** **representations,** **including those** **involving numbers,** **quantities and** **measures** **\* applying their** **increasing knowledge** **of mental and written** **methods*****solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement)*** | **solve problems,** **including missing** **number problems, using** **number facts, place** **value, and more** **complex addition and** **subtraction** | **solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why** | **solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why** | **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*** |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Multiplication and Division** | **Real life problems****e.g if Sam and Kate and Bill all want two sweets how many do we need?****Use practical and visual representations.****3x2=** | **solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher** | **Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts** | **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** | **solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects** | **Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes** | **solve problems involving addition, subtraction, multiplication and division****solve problems involving** **similar shapes where the scale factor is known or can be found (copied from Ratio and** **Proportion** |
| **solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign** |
| **solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates** |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Fractions (Decimals and Percentage)** | **Can we share the cake / sweets?****Half / whole** |  |  | **solve problems that involve all of the above** | **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****solve simple measure and money problems involving fractions and decimals to two decimal places.** | **solve problems involving** **numbers up to three** **decimal places****solve problems which require knowing percentage and decimal equivalents of 1 / 2 , 1 / 4 , 1 / 5 , 2 / 5 , 4 / 5 and those with a denominator of a multiple of 10 or 25** |  |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Ratio and Proportion** |  |  |  |  |  |  | **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 the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison** |
| **solve problems involving similar shapes where the scale factor is known or can be found** |
| **solve problems involving unequal sharing and grouping using knowledge of fractions and multiples** |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Measurement** | **Real life non standard measure.** |  |  |  | **solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Converting)****solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Telling the Time** | **solve problems involving converting between units of time** | **solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Measuring and Calculating)** |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Properties of Shape** | **Playing games to solve problems or explore ideas.** |  |  | **identify right angles, recognise that two right angles make a halfturn, three make three quarters** **of a turn and four a complete turn; identify whether angles are** **greater than or less than a right** **angle****identify horizontal and vertical lines and pairs of perpendicular and parallel line** | **identify acute and obtuse angles and compare and order angles up to two right angles by size** | **identify: \* angles at a point and one whole turn (total 360 o ) \* angles at a point on a straight line and ½ a turn (total 180 o ) \* other multiples of 90 o** | **recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and** **find missing angles** |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Statistics** | **How many want?****How may don’t want..?****How many like?****How many don’t like?** |  |  | **solve one-step and twostep questions [e.g. ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables.** | **solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.** | **solve comparison, sum** **and difference problems** **using information** **presented in a line graph** | **calculate and interpret the** **mean as an average** |
|  | **Pre NC STEPS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Algebra** |  | **solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = \* - 9 (copied from Addition and Subtraction)****represent and use number bonds and related subtraction facts within 20 (copied from Addition and Subtraction)** | **recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. (copied from Addition and Subtraction)** | **solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction****solve problems, including missing number problems, involving multiplication and division, including integer scaling (copied from Multiplication and Division)** |  | **use the properties of** **rectangles to deduce related** **facts and find missing** **lengths and angles****(copied from Geometry:** **Properties of Shapes)** | **express missing number** **problems algebraically****find pairs of numbers that satisfy number sentences involving two unknowns****enumerate all possibilities of combinations of two variables** |