## Manor Primary School

## Year 6

## Context of Lessons:

- Weekly assessment on number bonds and times tables.
- Three lessons adapted from White Rose to cover key skills, concepts
- One lesson application, reasoning and problem solving skills
- One lesson mental arithmetic

| Autumn Term |  |  |  |  |
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| White Rose Maths | Place Value | Addition, Subtraction, Multiplication and Division | Fractions | Position and Direction |
|  | - Recap Numbers to 10,000 <br> - Recap Numbers to 100,000 <br> - Recap Numbers to a million <br> - Numbers to 10 million <br> - Compare and order any numbers <br> - Recap Round numbers to 10, 100 and 1,000 <br> - Round any number <br> - Activity Negative numbers <br> - Negative numbers | - Recap Add whole numbers with more than 4 digits (column method) <br> - Recap Subtract whole numbers with more than 4 digits (column method) <br> - Recap Inverse operations (addition and subtraction) <br> - Recap Multi-step addition and subtraction problems <br> - Add and subtract integers <br> - Recap Multiply 4-digits by 1-digit <br> - Recap Multiply 2-digits (area model) <br> - Recap Multiply 2-digits by 2-digits <br> - Recap Multiply 3-digits by 2-digits <br> - Multiply up to a 4-digit number by a 2-- digit number <br> - Recap Divide 4-digits by 1-digit <br> - Recap Divide with remainders <br> - Short division <br> - Division using factors <br> - Long division <br> - Recap Factors <br> - Common factors and multiples <br> - Primes to 100 <br> - Squares and cubes <br> - Order of operations <br> - Mental calculations and estimation <br> - Reason from known facts | - Recap Equivalent fractions <br> - Simplify fractions <br> - Recap Improper fractions to mixed numbers <br> - Recap Mixed numbers to improper fractions <br> - Fractions on a number line <br> - Compare and order (denominator) <br> - Compare and order (numerator) <br> - Add and subtract fractions (1) <br> - Activity Add and subtract fractions activity (denominators are not <br> - Recap Add mixed numbers <br> - Add fractions <br> - Recap Subtract mixed numbers <br> - Subtract fractions <br> - Mixed addition and subtraction <br> - Multiply fractions by integers <br> - Multiply fractions by fractions <br> - Divide fractions by integers <br> - Four rules with fractions <br> - Fraction of an amount <br> - Fraction of an amount - find the whole | - The first quadrant <br> - Four quadrants <br> - Translations <br> - Reflections |


| National Curriculum Links | - I can read, write, order and compare numbers up to $10,000,000$ and determine the value of each digit. <br> - I can identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10,100 and 1000 giving answers up to 3 decimal places. | - I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. <br> - I can solve problems involving addition, subtraction, multiplication and division. <br> - I can multiply numbers up to 4 digits by a 2 digit whole number. <br> - I can divide numbers up to 4 digits by a 2 digit whole number. <br> - I can calculate mentally using the simplest calculation. <br> - I can associate a fraction with division and calculate decimal fraction equivalents. <br> - I can identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10,100 and 1000 giving answers up to 3 decimal places. | - I can + and - fractions with different denominators and mixed numbers, using the concept of equivalent fractions. <br> - I can solve fraction problems involving all four operations. <br> - I can recognise the relationship between fractions, decimals and percentages. <br> - I can calculate using fractions, decimals and percentages. <br> - I can associate a fraction with division and calculate decimal fraction equivalents. | - I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite and find missing angles. |
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## Year 6

| Spring Term |  |  |  |  |  |
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| White Rose Maths | Decimals | Percentages | Statistics | Converting Units | Perimeter, Area and Volume |
|  | - Recap Decimals up to 2 d.p. <br> - Recap Understand - thousandths <br> - Three decimal places <br> - Multiply by 10, 100 and 1,000 <br> - Divide by 10, 100 and 1,000 <br> - Multiply decimals by integers <br> - Divide decimals by integers <br> - Division to solve problems <br> - Decimals as fractions <br> - Fractions to decimals | - Recap Understand percentages <br> - Fractions to percentages <br> - Equivalent FDP <br> - Order FDP <br> - Percentage of an amount <br> - Percentages - missing values | - Read and interpret line graphs <br> - Draw line graphs <br> - Use line graphs to solve problems <br> - Circles <br> - Read and interpret pie charts <br> - Pie charts with percentages <br> - Draw pie charts <br> - The mean | - Metric measures <br> - Convert metric measures <br> - Calculate with metric measures <br> - Miles and kilometres <br> - Imperial measures | - Shapes - same area <br> - Area and perimeter <br> - Area of a triangle <br> - Area of a parallelogram <br> - Recap What is volume? <br> - Volume - counting cubes <br> - Volume of a cuboid |
| National Curriculum Links | - I can recognise the relationship between fractions, decimals and percentages. <br> - I can calculate using fractions, decimals and percentages. <br> - I can associate a fraction with division and calculate decimal fraction equivalents. <br> - I can identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10,100 and 1000 giving answers up to 3 decimal places. <br> - I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate. | - I can recognise the relationship between fractions, decimals and percentages. <br> - I can calculate using fractions, decimals and percentages. <br> - I can solve problems involving the calculation of percentages. | I can interpret pie charts. <br> I can construct and interpret data in a variety of graphs and charts. | - I can calculate measures <br> - I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate. <br> - I can use, read, write and convert between standard units. <br> - I can convert kilometres and metres. | - I can calculate the area of parallelograms and triangles. <br> - I can use simple formulae to solve perimeter and area problems. <br> - I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite and find missing angles. <br> - I can illustrate and name parts of circles, including radius, diameter and circumference. |

## Year 6

| Summer Term |  |  |  |
| :---: | :---: | :---: | :---: |
| White Rose | Algebra | Ratio | Properties of Shape |
|  | - Find a rule - one step <br> - Find a rule - two step <br> - Forming expressions <br> - Substitution <br> - Formulae <br> - Forming equations <br> - Solve simple one-step equations <br> - Solve two-step equations <br> - Find pairs of values | - Use ratio language <br> - Ratio and fractions <br> - Introducing the ratio symbol <br> - Activity Calculating ratio <br> - Calculating ratio <br> - Using scale factors <br> - Calculating scale factors <br> - Ratio and proportion problems | - Measure with a protractor <br> - Recap Draw lines and angles accurately <br> - Introduce angles <br> - Recap Angles on a straight line <br> - Recap Angles around a point <br> - Calculate angles <br> - Vertically opposite angles <br> - Angles in a triangle <br> - Angles in a triangle - special cases <br> - Angles in a triangle - missing angles <br> - Angles in special quadrilaterals <br> - Angles in regular polygons <br> - Draw shapes accurately <br> - Draw nets of 3-D shapes |
| National Curriculum Links | - I can express missing number problems algebraically. | - I can multiply numbers up to 4 digits by a 2 digit whole number. <br> - I can divide numbers up to 4 digits by a 2 digit whole number. <br> - I can calculate mentally using the simplest calculation. | I can compare and classify geometric shapes based on their properties and sizes. <br> I can find unknown measures in triangles, quadrilaterals and regular polygons. |

