# Year 5

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**

| White Rose Maths | Place Value | Addition and Subtraction | Multiplication and Division | Statistics | Fractions |
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| | - Recap 1,000s, 100s, 10s and 1s<br>- Numbers to 10,000<br>- Recap Rounding to the nearest 10<br>- Recap Rounding to the nearest 100<br>- Rounding to 10, 100 and 1,000<br>- Numbers to 100,000<br>- Compare and order numbers to 100,000<br>- Round numbers within 100,000<br>- Numbers to a million<br>- Counting in 10s, 100s, 1,000s, 10,000s and 100,000s<br>- Compare and order numbers to one million<br>- Round numbers to one million<br>- Negative numbers<br>- Roman numerals | - Recap Add two 4-digit numbers - one exchange<br>- Recap Add two 4-digit numbers - more than one exchange<br>- Add whole numbers with more than 4 digits (column method)<br>- Recap Subtract two 4-digit numbers - one exchange<br>- Recap Subtract two 4-digit numbers - more than one exchange<br>- Subtract whole numbers with more than 4 digits (column method)<br>- Round to estimate and approximate<br>Inverse operations (addition and subtraction)<br>- Multi-step addition and subtraction problems | - Multiples<br>- Factors<br>- Common factors<br>- Activity Prime numbers<br>- Prime numbers<br>- Square numbers<br>- Cube numbers<br>- Recap Multiply by 10<br>- Recap Multiply by 100<br>- Multiply by 10, 100 and 1,000<br>- Recap Divide by 10<br>- Recap Divide by 100<br>- Divide by 10, 100 and 1,000<br>- Multiples of 10, 100 and 1,000 | - Recap Interpret charts<br>- Recap Comparison, sum and difference<br>- Recap Introduce line graphs<br>- Read and interpret line graphs<br>- Draw line graphs<br>- Use line graphs to solve problems<br>- Read and interpret tables<br>- Two-way tables<br>- Timetables | - Recap What is a fraction?<br>- Recap Equivalent fractions<br>- Equivalent fractions<br>- Recap Fractions greater than 1<br>- Improper fractions to mixed numbers<br>- Mixed numbers to improper fractions<br>- Number sequences<br>- Compare and order fractions less than 1<br>- Compare and order fractions greater than 1 |
| **National Curriculum Links** | - I know what each digit represents in numbers to 1,000,000.<br>- I can use negative numbers in context; count forwards and backwards with positive and negative whole numbers. | - I can add whole numbers with more than 4 digits<br>- I can subtract whole numbers with more than 4 digits.<br>- I can mentally add and subtract using increasingly large numbers.<br>- I can use addition and | - I can recognise and use square ($^2$) numbers and cubed ($^3$) numbers using accurate notation | - I can read and interpret information in timetables.<br>- I can solve 'difference' and 'comparison' problems using presented data. | - I can identify, name and write equivalent fractions of a given fraction. |

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| | - I can read, write, order and compare numbers with up to 3 decimal places. | subtraction to solve multi-step problems.<br>- I can multiply numbers up to 4 digits by a one or two digit number. | | | |

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| **Spring Term** | | | | |
| **White Rose Maths** | **Multiplication and Division** | **Perimeter and Area** | **Fractions** | **Decimals** |
| | - Recap Multiply 2-digits by 1-digit<br>- Recap Multiply 3-digits by 1-digit<br>- Multiply 4-digits by 1-digit<br>- Multiply 2-digits (area model)<br>- Multiply 2-digits by 2-digits<br>- Multiply 3-digits by 2-digits<br>- Multiply 4-digits by 2-digits (basic practice)<br>- Multiply 4-digits by 2-digits<br>- Recap Divide 3-digits by 1-digit<br>- Divide 4-digits by 1-digit<br>- Divide with remainders | - Measure perimeter<br>- Recap Perimeter on a grid<br>- Recap Perimeter of rectangles<br>- Recap Perimeter of rectilinear shapes<br>- Calculate perimeter<br>- Recap Counting squares<br>- Area of rectangles<br>- Area of compound shapes<br>- Area of irregular shapes | - Add and subtract fractions<br>- Activity Add fractions within 1<br>- Add fractions within 1<br>- Add 3 or more fractions<br>- Add fractions<br>- Activity Add mixed numbers<br>- Add mixed numbers<br>- Subtract fractions<br>- Subtract mixed numbers<br>- Subtraction - breaking the whole<br>- Subtract 2 mixed numbers<br>- Multiply unit fractions by an integer<br>- Multiply non-unit fractions by an integer<br>- Multiply mixed numbers by integers<br>- Recap Calculate fractions of a quantity<br>- Fraction of an amount<br>- Using fractions as operators<br>- Fraction problem solving | - Decimals up to 2 d.p.<br>- Decimals as fractions<br>- Understand thousandths<br>- Thousandths as decimals<br>- Rounding decimals<br>- Order and compare decimals<br>- Understand percentages<br>- Percentages as fractions and decimals<br>- Equivalent F.D.P |
| **National Curriculum Links** | - I can multiply numbers up to 4 digits by a one or two digit number.<br>- I can divide numbers up to 4 digits by a one digit number.<br>- I can multiply and divide numbers mentally.<br>- I can use place value to calculate with decimal numbers.<br>- I can recognise and use square ($^2$) numbers and cubed ($^3$) numbers using accurate notation | - I can estimate and measure the area of irregular shapes.<br>- I can use the properties on rectangles to deduce related facts and find missing lengths and angles. | - I can identify, name and write equivalent fractions of a given fraction.<br>- I can + and – fractions with the same denominators and denominators that are multiples of the same number.<br>- I can read and write decimal numbers as fractions.<br>- I can write % as a fraction.<br>- I can compare and order fractions whose denominators are all multiples of the same number. | - I can read and write decimal numbers as fractions.<br>- I can read, write, order and compare numbers with up to 3 decimal places.<br>- I can solve problems involving numbers up to 3 decimal places. |

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| **Summer Term** | | | | |
| **White Rose Maths** | **Decimals and Percentages** | **Properties of Shape** | **Position and Direction** | **Converting Units** |
| | - - Adding decimals within 1<br>- Subtracting decimals within 1<br>- Complements to 1<br>- Adding decimals - crossing the whole<br>- Adding decimals with the same number of decimal places<br>- Subtracting decimals with the same number of decimal places<br>- Adding and subtracting decimals with the same number of decimal places problem solving<br>- Adding decimals with a different number of decimal places<br>- Subtracting decimals with a different number of decimal places<br>- Adding and subtracting decimals with a different number of decimal places problem solving<br>- Adding and subtracting wholes and decimals<br>- Decimal sequences<br>- Multiplying decimals by 10, 100 and 1,000<br>- Dividing decimals by 10, 100 and 1000, | - Recap Identify angles<br>- Recap Compare and order angles<br>- Measuring angles in degrees<br>- Measuring with a protractor<br>- Activity Drawing lines and angles accurately<br>- Drawing lines and angles accurately<br>- Calculating angles on a straight line<br>- Calculating angles around a point<br>- Recap Triangles<br>- Recap Quadrilaterals<br>- Calculating lengths and angles in shapes<br>- Regular and irregular polygons<br>- Reasoning about 3-D shapes | - Recap Describe position<br>- Recap Draw on a grid<br>- Position in the first quadrant<br>- Translation<br>- Translation with coordinates<br>- Recap Line of symmetry<br>- Recap Complete a symmetric figure<br>- Reflection<br>- Reflection with coordinates | - Recap Kilometres<br>- Kilograms and kilometres<br>- Millimetres and mililitres<br>- Activity Metric units<br>- Activity Imperial units<br>- Converting units of time<br>- Timetables |
| **National Curriculum Links** | -- I can read and write decimal numbers as fractions.<br>- I can read, write, order and compare numbers with up to 3 decimal places.<br>- I can solve problems involving numbers up to 3 decimal places.<br>- I can mentally add and subtract using increasingly large numbers. | - I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.<br>- I can use the properties on rectangles to deduce related facts and find missing lengths and angles.<br>- I can estimate and measure the area of irregular shapes. | - I can describe positions on the full coordinates grid. | - I can convert between different units of metric measure.<br>- I can understand and use approximate equivalences between metric and common imperial units such as inches, pounds and pints. |