| Year 4.1- Number and Place Value | 2 weeks- Autumn 1 |
|---|---|
| <ul><li>Count in multiples of 6, 7, 9. 25 and 1000.</li><li>Find 1000 more or less than a given number.</li><li>Count backwards through zero to include negative numbers.</li><li>Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones)</li><li>Order and compare numbers beyond 1000.</li><li>Identify, represent and estimate numbers using different representations.</li><li>Round any number to the nearest 10, 100 or 1000.</li><li>Solve number and practical problems that involve all of the above and with increasingly large positive numbers.</li><li>Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.</li></ul> | Useful Links<br>Vocabulary document<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| Vocabulary: round to the nearest hundred, integer, positive, negative, above/below zero, minus, thousands, ten thousand, hundred thousand, million, digit, one-, two-, three- or four-digit number, numeral | |

| Year 4.2- Addition and subtraction/ Measures | 3 weeks- Autumn 1 |
|---|---|
| **Addition and subtraction**<br><ul><li>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.</li><li>Estimate and use inverse operations to check answers to a calculation.</li><li>Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.</li></ul>**Measure**<br><ul><li>Estimate, measure and compare different measures, including money in pounds and pence.</li></ul> | Useful Links<br>Vocabulary document<br>Calculations Policy<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| Vocabulary:<br>Addition and subtraction: expanded, compact, thousands, hundreds, digits, inverse, increase, decrease<br> Money: Change, approximate, approximately, relationship, more/most expensive, cheap, costs less, cheaper, less/least expensive, how much…? how many…? total, amount, value, worth | |

| Year 4.3- Measures | 2 week – Autumn 1/2 |
|---|---|
| <ul><li>Find the area of rectilinear shapes by counting squares.</li><li>Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m.</li><li>Convert between different units of measure eg: kilometre to metre; hour to minute.</li></ul> | Useful Links<br>Vocabulary document<br>White Rose- Reasoning<br>Mastery Year 4 booklet |

| **Addition and subtraction**<br>• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.<br>• Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why. | Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
|---|---|
| Vocabulary: area, covers, surface, square centimetre (*cm2*), convert, perimeter, rectilinear | |

| Year 4.4- Multiplication and division | 3 weeks- Autumn 2 |
|---|---|
| • Recall and use multiplication and division facts for multiplication tables up to 12 x 12.<br>• Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>• Recognise and use factor pairs and commutatively in mental calculations.<br>• Multiply two digit and three digit numbers by a one digit number using formal written layout.<br>• 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. | Useful Links<br>Vocabulary document<br>Calculations Policy<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| Vocabulary: factor, quotient, divisible by, inverse, multiple, commutative | |

| Year 4.5- Fractions | 2 weeks- Autumn 2 |
|---|---|
| • Recognise and show, using diagrams, families of common equivalent fractions.<br>• Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.<br>• 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.<br>• Recognise and write decimal equivalents of any number of tenths or hundredths.<br>• Recognise and write decimal equivalents to ½ ¼ ¾ | Useful Links<br>Vocabulary document<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Fractions progression document<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| Vocabulary: eighth, third, sixth, fifth, tenth, twentieth, proportion, in every, for every, decimal, decimal fraction, decimal point, decimal place | |

| Year 4.6- Statistics | 1 ½ weeks- Spring 1 |
|---|---|

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|---|---|
| • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.<br>• Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. | <u>Useful Links</u><br>Vocabulary document<br>White Rose- Reasoning Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| <u>Vocabulary:</u> survey, questionnaire, data, tally chart | |

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| Year 4.7- Fractions, decimals and percentages | 3 weeks- Spring 1 |
|---|---|
| • Add and subtract fractions with the same denominator.<br>• 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.<br>• Solve simple measure and money problems involving fractions.<br>• Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>• Round decimals with one decimal place to the nearest whole number.<br>• Compare numbers with the same number of decimal places up to two decimal places. | <u>Useful Links</u><br>Vocabulary document<br>White Rose- Reasoning Mastery Year 4 booklet<br>Fractions progression document<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| <u>Vocabulary:</u> eighth, third, sixth, fifth, tenth, twentieth, proportion, in every, for every, decimal, decimal fraction, decimal point, decimal place | |

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| Year 4.8- Geometry | 2 weeks- Spring 1 |
|---|---|
| • Identify acute and obtuse angles and compare and order angles up to two right angles by size.<br>• Begin to recognise where angles are greater than two right angles and know the term straight angle referring to two right angles together.<br>• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.<br>• Identify lines of symmetry in 2D shapes presented in different orientations.<br>• Begin exploring line symmetry with two lines of symmetry.<br>• Complete a simple symmetric figure with respect to a specific line of symmetry. | <u>Useful Links</u><br>Vocabulary document<br>White Rose- Reasoning Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| <u>Vocabulary:</u> radius, diameter, net, surface, angle, right-angled, base, square-based, vertex,, vertices, layer, diagram, regular, irregular, concave, convex, right angle, degree | |

| Year 4.9- Four operations | 3 weeks- Spring 2 |
|---|---|
| **Addition and subtraction**<br>• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.<br>• Estimate and use inverse operations to check answers to a calculation.<br>• Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.<br>**Multiplication and division**<br>• Recall and use multiplication and division facts for multiplication tables up to 12 x 12.<br>• Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>• Recognise and use factor pairs and commutatively in mental calculations.<br>• Multiply two digit and three digit numbers by a one digit number using formal written layout.<br>• 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.<br>**Measure**<br>• Estimate, measure and compare different measures, including money in pounds and pence. | <u>Useful Links</u><br>Vocabulary document<br>Calculations Policy<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |

<u>Vocabulary:</u>
**Addition and subtraction:** expanded, compact, thousands, hundreds, digits, inverse, increase, decrease
**Multiplication and division**: factor, quotient, divisible by, inverse, multiple, divisible by, factor.
**Money:** Change, approximate, approximately, relationship, more/most expensive, cheap, costs less, cheaper, less/least expensive, how much…? how many…? total, amount, value, worth

| Year 4.10- Measures | 2 weeks- Spring 2 |
|---|---|
| • Read, write and convert time between analogue and digital 12- and 24- hour clocks.<br>• Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. | <u>Useful Links</u><br>Vocabulary document<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| <u>Vocabulary:</u> timetable, arrive, depart | |

| Year 4.11- Number and Place Value | 1 weeks- Summer 1 |
|---|---|
| • Count in multiples of 6, 7, 9. 25 and 1000.<br>• Find 1000 more or less than a given number.<br>• Count backwards through zero to include negative numbers.<br>• Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones)<br>• Order and compare numbers beyond 1000.<br>• Identify, represent and estimate numbers using different representations.<br>• Round any number to the nearest 10, 100 or 1000.<br>• Solve number and practical problems that involve all of the above and with increasingly large positive numbers.<br>• Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.<br>• Solve simple measure and money problems involving decimals to two decimal places. | <u>Useful Links</u><br>Vocabulary document<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| <u>Vocabulary:</u> round to the nearest hundred, integer, positive, negative, above/below zero, minus, thousands, ten thousand, hundred thousand, million, digit, one-, two-, three- or four-digit number, numeral | |

| Year 4.13- Measures/ Geometry | 2 weeks- Summer 1 |
|---|---|
| **Measures**<br>• Convert between different units of measure eg kilometre to metre.<br>• Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m<br>• Find the area of rectilinear shapes by counting squares.<br>**Geometry- position and direction**<br>• Describe positions on a 2D grid as coordinates in the first quadrant.<br>• Describe movements between positions as translations of a given unit to the left/ right and up/ down. | <u>Useful Links</u><br>Vocabulary document<br>White Rose- Reasoning<br>Mastery Year 4 booklet<br>Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |

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|---|---|
| • Plot specified points and draw sides to complete a given polygon. | |
| Vocabulary:<br>**Measurement**: measurement<br>**Geometry:** origin, coordinates, north-east, north-west, south-east, south-west (NE, NW, SE, SW) | |

| Year 4.14- Fractions, decimals and percentages | 2 weeks- Summer 1 |
|---|---|
| • Add and subtract fractions with the same denominator.<br>• Solve simple measure and money problems involving fractions.<br>• Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>• Recognise and show, using diagrams, families of common equivalent fractions.<br>• 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. | Interactive Teaching Programs<br>Topmarks- diennes and coins<br>nrich |
| Vocabulary: eighth, third, sixth, fifth, tenth, twentieth, proportion, in every, for every, decimal, decimal fraction, decimal point, decimal place | |