

# Maths Curriculum Overview



	Autumn		Spring		Summer	
	1	2	1	2	1	2
Y7	<p>Place value Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Represent numbers to 1,000,</li> <li>- Partition numbers to 1,000</li> <li>- Number line to 1,000</li> <li>- Thousands</li> </ul> <p>Addition &amp; subtraction Students will learn how to;</p> <ul style="list-style-type: none"> <li>- Add and subtract 1s, 10s, 100s and 1,000s</li> <li>- Add up to two 4-digit numbers - no exchange</li> <li>- Add two 4-digit numbers - one exchange</li> <li>- Add two 4-digit numbers - more than one exchange</li> </ul> <p>Length &amp; perimeter Students will learn how to;</p> <ul style="list-style-type: none"> <li>- Measure in kilometres and metres</li> <li>- Equivalent lengths (kilometres and metres)</li> <li>- Perimeter on a grid</li> <li>- Perimeter of a rectangle</li> </ul> <p>Time Students will learn how about;</p> <ul style="list-style-type: none"> <li>- Years, months, weeks and days</li> <li>- Hours, minutes and seconds</li> <li>- Convert between analogue and digital times</li> <li>- Convert to the 24 hour clock</li> </ul> <p>Position &amp; direction Students will learn how to;</p>	<p>Place value Students will learn how to:</p> <ul style="list-style-type: none"> <li>- Represent numbers to 10,000</li> <li>- Partition numbers to 10,000</li> <li>- Flexible partitioning of numbers to 10,000</li> <li>- Find 1, 10, 100, 1,000 more or less</li> </ul> <p>Addition &amp; subtraction Students will learn how to</p> <ul style="list-style-type: none"> <li>- Subtract two 4-digit numbers – no exchange</li> <li>- Subtract two 4-digit numbers – one exchange</li> <li>- Subtract two 4-digit numbers – more than one exchange</li> <li>- Calculate efficient subtraction</li> </ul> <p>Length &amp; perimeter Students will learn how to</p> <ul style="list-style-type: none"> <li>- Calculate perimeter of rectilinear shapes</li> <li>- Find missing lengths in rectilinear shapes</li> <li>- Calculate perimeter of rectilinear shapes</li> <li>- Calculate perimeter of regular polygons</li> </ul> <p>Time Students will learn how to</p> <ul style="list-style-type: none"> <li>- Tell the difference between years, months, weeks and days</li> <li>- Tell the difference between hours, minutes and seconds</li> <li>- Convert between analogue and digital times</li> <li>- Convert to the 24 hour clock</li> </ul> <p>Position &amp; direction Students will learn how to</p>	<p>Place value Students will <b>learn</b> how to;</p> <p>Represent numbers to 10,000, Partition numbers to 10,000 Flexible partitioning of numbers up to 10,000 Find 1, 10, 100, 1,000 more or less</p> <p>Addition &amp; subtraction Students will <b>learn</b> how to;</p> <p>Subtract two 4-digit numbers – no exchange Subtract two 4-digit numbers – one exchange Subtract two 4-digit numbers – more than one exchange Efficient subtraction</p> <p>Decimals</p> <p>Money</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>	<p>Place value Students will <b>recap and retrieval</b> on how to;</p> <p>Represent numbers to 1,000, Partition numbers to 1,000</p> <p>Addition &amp; subtraction Students will <b>recap and retrieval</b> on how to;</p> <p>Subtract two 4-digit numbers – no exchange Subtract two 4-digit numbers – one exchange Subtract two 4-digit numbers – more than one exchange Efficient subtraction</p> <p>Decimals Students will <b>recap and retrieval</b> on how to;</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>	<p>Multiply &amp; divide Students will <b>learn</b> how to;</p> <p>Area Students will <b>learn</b> how to;</p> <p>Time Students will <b>learn</b> how to;</p> <p>Shape Students will <b>learn</b> how to;</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>	<p>Multiply &amp; divide Students will <b>recap and retrieval</b> on how to;</p> <p>Area Students will <b>recap and retrieval</b> on how to;</p> <p>Time Students will <b>recap and retrieval</b> on how to;</p> <p>Shape Students will <b>recap and retrieval</b> on how to;</p> <p>Money Students will <b>recap and retrieval</b> on how to;</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>

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	<ul style="list-style-type: none"> <li>- Describe position using coordinates</li> <li>- Plot coordinates</li> <li>- Draw 2-D shapes on a grid</li> <li>- Translate on a grid</li> </ul> <p>Shape Students will learn how to;</p> <ul style="list-style-type: none"> <li>- Understand angles as turns</li> <li>- Identify angles</li> <li>- Compare and order angles</li> <li>- Triangles</li> </ul> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>	<ul style="list-style-type: none"> <li>- Describe position using coordinates</li> <li>- Plot coordinates</li> <li>- Draw 2-D shapes on a grid</li> <li>- Translate on a grid (<b>RECAP</b>) and Describe translation on a grid (<b>NEW learning</b>)</li> </ul> <p>Retrieval/assessment Students will <b>recap and retrieval</b> on how to; Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>				
Y8	<p>Place value Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Work with Roman numerals to 1,000</li> <li>- Numbers to 10,000</li> <li>- Numbers to 100,000</li> <li>- Numbers to 1,000,000</li> </ul> <p>Addition &amp; subtraction Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Mental Strategies</li> <li>- Add whole numbers with more than four digits</li> <li>- Subtract whole numbers with more than four digits</li> <li>- Round to check answers</li> </ul> <p>Multiply &amp; divide Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Multiples</li> </ul>	<p>Place value Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Read and write numbers to 1,000,000</li> <li>- Powers of 10</li> <li>- 10/100/1,000/10,000/100,000 more or less</li> <li>- Partition numbers to 1,000,000</li> </ul> <p>Addition &amp; subtraction Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Inverse operations (addition and subtraction)</li> <li>- Multi-step addition and subtraction problem</li> <li>- Compare calculation</li> <li>- Find missing numbers</li> </ul> <p>Multiply &amp; divide Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Prime numbers</li> <li>- Square numbers</li> <li>- Cube numbers</li> <li>- Multiply by 10, 100 and 1,000</li> </ul>	<p>Wk 1 – Place value Wk 2 – Multiply &amp; divide Wk 3 – Fractions Wk 4 – Negative numbers Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Place value Wk 2 – Multiply &amp; divide Wk 3 – Fractions Wk 4 – Retrieval/assessment Wk 5 – Retrieval/assessment</p>	<p>Wk 1 – Shape Wk 2 – Position &amp; direction Wk 3 – Decimals Wk 4 – Converting units Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Shape Wk 2 – Position &amp; direction Wk 3 – Decimals Wk 4 – Converting units Wk 5 – Negative numbers Wk 6 – Retrieval/assessment Wk 7 – Retrieval/assessment</p>

# Maths Curriculum Overview

<ul style="list-style-type: none"> <li>- Common Multiples</li> <li>- Factors</li> <li>- Common Factors</li> </ul> <p>Fractions Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Find fractions equivalent to a unit fraction</li> <li>- Find fractions equivalent to a non-unit fraction</li> <li>- Recognise equivalent fractions</li> <li>- Convert improper fractions to mixed numbers</li> </ul> <p>Decimal &amp; percentages Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Decimals up to 2 decimal places</li> <li>- Equivalent fractions and decimals (tenths)</li> <li>- Equivalent fractions and decimals (hundredths)</li> <li>- Equivalent fractions and decimals</li> </ul> <p>Negative numbers Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Understand negative numbers</li> <li>- Count through zero in 1s</li> <li>- Count through zero in multiples</li> <li>- Compare and order negative numbers</li> </ul> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment</p>	<p>Fractions Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Convert mixed numbers to improper fraction</li> <li>- Compare fractions less than 1</li> <li>- Order fractions less than 1</li> <li>- Compare and order fractions greater than</li> </ul> <p>Decimal &amp; percentages Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Thousandths as fractions</li> <li>- Thousandths as decimals</li> <li>- Thousandths on a place value chart</li> <li>- Order and compare decimals (same number of decimal places)</li> </ul> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>				
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# Maths Curriculum Overview

	<p>Teachers to identify areas for development and address these areas</p>					
<p><b>Y9</b></p>	<p>Place value Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Numbers to 1,000,000</li> <li>- Numbers to 10,000,000</li> <li>- Read and write numbers to 10,000,000</li> <li>- Powers of 10</li> </ul> <p>Addition, subtraction, multiplication and division Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Add and subtract integers</li> <li>- Common factors</li> <li>- Common multiples</li> <li>- Rules of divisibility</li> </ul> <p>Fractions Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Equivalent fractions and simplifying</li> <li>- Equivalent fractions on a number line</li> <li>- Compare and order (denominator)</li> <li>- Compare and order (numerator)</li> </ul> <p>Ratio Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Add or multiply?</li> <li>- Use ratio language</li> </ul> <p>Introduction to the ratio symbol</p> <ul style="list-style-type: none"> <li>- Ratio and fractions</li> </ul>	<p>Place value Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Number line to 10,000,000</li> <li>- Compare and order any integers</li> <li>- Round any integer</li> <li>- Negative numbers</li> </ul> <p>Addition &amp; subtraction Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Primes to 100</li> <li>- Square and cube numbers</li> <li>- Multiply up to a 4-digit number by a 2-digit number</li> <li>- Solve problems with multiplication</li> </ul> <p>Multiply &amp; divide Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Add and subtract simple fractions</li> <li>- Add and subtract any two fractions</li> <li>- Add mixed numbers</li> <li>- Subtract mixed numbers</li> </ul> <p>Place Value Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Place value within 1dp</li> <li>- Integers and decimals</li> <li>- Round decimals</li> <li>- Add and subtract decimals</li> </ul> <p>Scale drawing Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Scale Drawing</li> <li>- Use scale factors</li> <li>- Similar shapes</li> <li>- Ratio problem</li> </ul> <p>Retrieval/assessment</p>	<p>Wk 1 – Addition &amp; subtraction Wk 2 – Multiply &amp; divide Wk 3 – Fractions Wk 4 – Ratio Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Addition &amp; subtraction Wk 2 – Multiply &amp; divide Wk 3 – Fractions Wk 4 – Retrieval/assessment Wk 5 – Retrieval/assessment</p>	<p>Wk 1 – Ratio Wk 2 – Algebra Wk 3 – Decimals Wk 4 – Fractions &amp; Percentages Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Ratio Wk 2 – Area, perimeter &amp; volume Wk 3 – Shape Wk 4 – Position &amp; direction Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment Wk 7 – Retrieval/assessment</p>

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	<p>Converting units Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Metric measures</li> <li>- Convert metric measures</li> <li>- Calculate with metric measures</li> <li>- Miles and kilometres</li> </ul> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>	<p>Teachers to identify areas for development and address these area</p> <p>Retrieval/assessment Teachers to identify areas for development and address these area</p>				
<p><b>Y1 0</b></p>	<p>Place value, ordering &amp; decimals Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Recognise the place value of any number in an integer up to one billion</li> <li>- Understand and write integers up to one billion in words and figures</li> <li>- Work out intervals on a number line</li> <li>- Position integers on a number line</li> </ul> <p>Fractions, decimals &amp; percentages Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Represent tenths &amp; hundreds as diagrams</li> <li>- Represent tenths &amp; hundreds on number line</li> </ul>	<p>Place value, ordering &amp; decimals Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Round integers to powers of 10</li> <li>- Compare integers using =, ≠, &lt; and &gt;</li> <li>- Order a list of integers</li> <li>- Find the range of a list of integers</li> </ul> <p>Fractions, decimals &amp; percentages Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Convert fifths and quarters</li> <li>- Convert eighths and thousandths</li> <li>- Percentages on a hundred square</li> <li>- Convert simple FDPs</li> </ul> <p>Sequences Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Continue linear sequences</li> <li>- Continue non-linear sequences</li> <li>- Explain the term to term rule</li> <li>- Find missing term</li> </ul>	<p>Wk 1 – Place value, ordering &amp; decimals Wk 2 – Fractions, decimals &amp; percentages Wk 3 – Solving problems with + &amp; - Wk 4 – Solving problems with x &amp; ÷ Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Place value, ordering &amp; decimals Wk 2 – Fractions, decimals &amp; percentages Wk 3 – Solving problems with + &amp; - Wk 4 – Retrieval/assessment Wk 5 – Retrieval/assessment</p>	<p>Wk 1 – Developing number sense Wk 2 – Sets &amp; probability Wk 3 – Prime numbers &amp; proof Wk 4 – Constructing &amp; measuring Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Developing number sense Wk 2 – Sets &amp; probability Wk 3 – Prime numbers &amp; proof Wk 4 – Constructing &amp; measuring Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment Wk 7 – Retrieval/assessment</p>

# Maths Curriculum Overview

<ul style="list-style-type: none"> <li>- Interchange between fractional and decimal number lines</li> <li>- Convert between fractions and decimals – tenths and hundreds</li> </ul> <p>Sequences Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Describe and continue a sequence given diagrammatically</li> <li>- Predict and check the next term(s) of a sequence</li> <li>- Represent sequences in tabular and graphical forms</li> <li>- Recognise the difference between linear and non-linear forms</li> </ul> <p>Operations and equations with directed number Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Understand and use representations of directed numbers</li> <li>- Order directed numbers using lines and appropriate symbols</li> <li>- Perform calculations that cross zero</li> <li>- Add directed numbers</li> </ul> <p>Solving problems with + &amp; - Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Properties of addition and subtraction</li> <li>- Mental strategies for addition and subtraction</li> <li>- Use formal methods for addition of integers</li> </ul>	<p>Solving problems with + &amp; - Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- Use formal methods for subtracting integers</li> <li>- Formal methods: subtracting decimals</li> <li>- Choosing the appropriate method</li> <li>- Solve problems with perimeter</li> </ul> <p>Solving problems with x &amp; ÷ Students will <b>learn</b> how to;</p> <ul style="list-style-type: none"> <li>- multiply by 0.1 and 0.01</li> <li>- Convert metric units</li> <li>- Formal methods : Multiply integers</li> <li>- Formal methods : Multiply decimals</li> </ul> <p>Retrieval/assessment Teachers to identify areas for development and address these area</p> <p>Retrieval/assessment Teachers to identify areas for development and address these area</p>				
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# Maths Curriculum Overview

	<ul style="list-style-type: none"> <li>- Use formal methods for addition decimals</li> </ul> <hr/> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>					
<p><b>Y 11</b></p>	<p>Ratio and Scale Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Understanding the meaning of ratio</li> <li>- Understanding and use ratio notation</li> <li>- Solve problems involving ratios of the form 1:n</li> <li>- Solve proportional problems involving the ratios m:n</li> </ul> <p>Fractions and percentages</p> <ul style="list-style-type: none"> <li>- Convert fluently between key fractions, decimals and percentages</li> <li>- Calculate key fractions, decimals and percentages of an amount without a calculator</li> <li>- Calculate fractions, decimals and percentages of an amount using calculator methods</li> </ul>	<p>Ratio and Scale Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Divide a value into a given ratio</li> <li>- Express ratios in simplest form</li> <li>- Express ratios in the form 1:n</li> <li>- Compare ratios and fractions</li> </ul> <p>Fractions, decimals &amp; percentages Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Percentage decrease with a multiplier</li> <li>- Increase and decrease - multipliers</li> <li>- Express as a % - non-calculator</li> <li>- Express as a % - calculator</li> </ul> <p>Sequences Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- + and - expressions with indices</li> <li>- Multiply expressions with indices</li> <li>- Divide expressions with indices</li> <li>- The addition law for indices</li> </ul>	<p>Wk 1 – Place value, ordering &amp; decimals Wk 2 – Fractions, decimals &amp; percentages Wk 3 – Solving problems with + &amp; - Wk 4 – Solving problems with x &amp; ÷ Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Place value, ordering &amp; decimals Wk 2 – Fractions, decimals &amp; percentages Wk 3 – Solving problems with + &amp; - Wk 4 – Retrieval/assessment Wk 5 – Retrieval/assessment</p>	<p>Wk 1 – Developing number sense Wk 2 – Sets &amp; probability Wk 3 – Prime numbers &amp; proof Wk 4 – Constructing &amp; measuring Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment</p>	<p>Wk 1 – Developing number sense Wk 2 – Sets &amp; probability Wk 3 – Prime numbers &amp; proof Wk 4 – Constructing &amp; measuring Wk 5 – Retrieval/assessment Wk 6 – Retrieval/assessment Wk 7 – Retrieval/assessment</p>

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<ul style="list-style-type: none"> <li>- Convert between decimals and percentages greater than 100%</li> </ul> <p>Sequences</p> <ul style="list-style-type: none"> <li>- Generate sequences given a rule in words</li> <li>- Generate sequences given a simple algebraic rule</li> <li>- Generate sequences given a complex algebraic rule</li> <li>- Find the rule for the <i>nth</i> term of a linear sequence</li> </ul> <p>Solving problems with + &amp; -</p> <ul style="list-style-type: none"> <li>- Use formal methods for subtraction of integers</li> <li>- Use formal methods for subtraction of decimals</li> <li>- Choose the most appropriate method: mental strategies, formal written or calculator</li> <li>- Solve problems in the context of perimeter</li> </ul> <p>Solving problems with x &amp; ÷</p> <ul style="list-style-type: none"> <li>- Properties of multiplication and division</li> <li>- Understand and use factors</li> <li>- Understand and use multiples</li> <li>- Multiply and divide integers by 10</li> </ul> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment</p>	<p>Solving problems with + &amp; - Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Draw and interpret scatter graphs</li> <li>- Linear Correlation</li> <li>- Draw and use line of best fit (1)</li> <li>- Draw and use line of best fit (2)</li> </ul> <p>Solving problems with x &amp; ÷ Students will <b>learn</b> how to</p> <ul style="list-style-type: none"> <li>- Set up a statistical enquiry</li> <li>- Design and criticise questionnaires.</li> <li>- Pictograms, bar and line charts</li> <li>- Multiple bar charts</li> </ul> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p> <p>Retrieval/assessment Teachers to identify areas for development and address these areas</p>				
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