

Curriculum End Points	Subject: Mathematics		
Theme / Area Covered	Calculations		
	<b>Age Related Targets – Year 7</b>	<b>Age Related Targets – Year 8</b>	<b>Age Related Targets – Year 9</b>
Key Objectives / Learning Pathway Emerging	<p>Multiply and divide positive integers by powers of 10</p> <p>Multiply and divide decimals by powers of 10</p> <p>Add and subtract numbers up to 6 digits using a formal written method</p> <p>Add and subtract decimals with the same, and different, number of decimal places</p> <p>Multiply and divide a number up to 4 digits by a one- or two-digit number using a formal written method</p> <p>Transform a multiplication involving decimals to a corresponding multiplication with integers</p> <p>Multiply a large number, up to 4 digits, by a decimal of up to 2dp using integer multiplication</p> <p>Use a scientific calculator to calculate with negative numbers</p>	<p>Use a formal method to divide a decimal by an integer &lt;10</p> <p>Use a formal method to divide a decimal by an integer &gt;10</p> <p>Transform a calculation involving the division of decimals to an equivalent division involving integers</p> <p>Apply the order of operation to multi-step calculations involving up to four operations and brackets</p> <p>Subtract a number from a smaller number</p> <p>Add a positive number to a negative number</p> <p>Subtract a positive number from a negative number</p> <p>Add a negative number</p> <p>Subtract a negative number</p> <p>Multiply a positive number by a negative number</p> <p>Multiply a negative number by a negative number</p> <p>Divide a positive number by a negative number</p> <p>Divide a negative number by a negative number</p> <p>Square and cube positive and negative numbers</p>	<p>Use a scientific calculator to calculate with fractions both positive and negative</p> <p>Understand how to use order of operations including powers</p> <p>Understand how to use order of operation including roots</p>
Key Objectives / Learning Pathway Developing	<p>Use a formal method to divide a decimal by an integer &lt;10</p> <p>Use a formal method to divide a decimal by an integer &gt;10</p> <p>Transform a calculation involving the division of decimals to an equivalent division involving integers</p> <p>Apply the order of operation to multi-step calculations involving up to four operations and brackets</p> <p>Subtract a number from a smaller number</p> <p>Add a positive number to a negative number</p> <p>Subtract a positive number from a negative number</p> <p>Add a negative number</p> <p>Subtract a negative number</p> <p>Multiply a positive number by a negative number</p>	<p>Use a scientific calculator to calculate with fractions both positive and negative</p> <p>Understand how to use order of operations including powers</p> <p>Understand how to use order of operation including roots</p>	<p>Calculate with positive indices</p> <p>Calculate with roots</p> <p>Calculate with positive indices in the context of standard form</p> <p>Use a calculator to evaluate numerical expressions involving powers</p> <p>Use a calculator to evaluate numerical expressions involving roots</p>

	<p>Multiply a negative number by a negative number</p> <p>Divide a positive number by a negative number</p> <p>Divide a negative number by a negative number</p> <p>Square and cube positive and negative numbers</p>		
<p><b>Key Objectives</b> <b>/ Learning</b> <b>Pathway</b> <b>Mastering</b></p>	<p>Use a scientific calculator to calculate with fractions both positive and negative</p> <p>Understand how to use order of operations including powers</p> <p>Understand how to use order of operation including roots</p>	<p>Calculate with positive indices</p> <p>Calculate with roots</p> <p>Calculate with positive indices in the context of standard form</p> <p>Use a calculator to evaluate numerical expressions involving powers</p> <p>Use a calculator to evaluate numerical expressions involving roots</p>	<p>Add numbers written in standard form</p> <p>Subtract numbers written in standard form</p> <p>Multiply numbers written in standard form</p> <p>Divide numbers written in standard form</p> <p>Use standard form on a scientific calculator including interpreting the standard form display</p> <p>Understand the difference between truncating and rounding</p> <p>Identify the minimum and maximum values of an amount that has been rounded (to nearest x, xdp and xsf)</p> <p>Use inequalities to describe the range of values for a rounded value</p> <p>Solve problems involving the maximum and minimum values of an amount that has been rounded</p>
<p><b>Key Objectives</b> <b>/ Learning</b> <b>Pathway</b> <b>Excelling</b></p>	<p>Calculate with positive indices</p> <p>Calculate with roots</p> <p>Calculate with positive indices in the context of standard form</p> <p>Use a calculator to evaluate numerical expressions involving powers</p>	<p>Add numbers written in standard form</p> <p>Subtract numbers written in standard form</p> <p>Multiply numbers written in standard form</p> <p>Divide numbers written in standard form</p> <p>Use standard form on a scientific calculator including interpreting the standard form display</p>	

	Use a calculator to evaluate numerical expressions involving roots	Understand the difference between truncating and rounding Identify the minimum and maximum values of an amount that has been rounded (to nearest $x$ , $x_{dp}$ and $x_{sf}$ ) Use inequalities to describe the range of values for a rounded value Solve problems involving the maximum and minimum values of an amount that has been rounded	
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