

	Subject: Mathematics		
Theme / Area Covered	Calculations End Points		
	Age Related Targets – Year 7	Age Related Targets – Year 8	Age Related Targets – Year 9
Key Objectives / Learning Pathway Emerging	<p>Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.</p> <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 <10 or an integer >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 or subtract a positive number to a negative number</p> <p>Add or subtract negative numbers</p> <p>Multiply a positive or negative number by a negative number</p> <p>Divide a positive or 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 <10 or an integer >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 or subtract a positive number to a negative number</p> <p>Add or subtract negative numbers</p> <p>Multiply a positive or negative number by a negative number</p> <p>Divide a positive or 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>	<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>Key Objectives / Learning Pathway Securing</p>	<p>Use a scientific calculator to calculate with fractions both positive and negative Understand how to use order of operations including powers Understand how to use order of operation including roots</p>	<p>Calculate with positive indices Calculate with roots Calculate with positive indices in the context of standard form Use a calculator to evaluate numerical expressions involving powers Use a calculator to evaluate numerical expressions involving roots</p>	<p>Add or subtract numbers written in standard form Multiply or divide numbers written in standard form Use standard form on a scientific calculator including interpreting the standard form display Understand the difference between truncating and rounding Identify the minimum and maximum values of an amount that has been rounded (to nearest x, xdp and xsf) 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</p>
<p>Key Objectives / Learning Pathway Excelling</p>	<p>Calculate with positive indices Calculate with roots Calculate with positive indices in the context of standard form Use a calculator to evaluate numerical expressions involving powers Use a calculator to evaluate numerical expressions involving roots</p>	<p>Add or subtract numbers written in standard form Multiply or divide numbers written in standard form Use standard form on a scientific calculator including interpreting the standard form display Understand the difference between truncating and rounding Identify the minimum and maximum values of an amount that has been rounded (to nearest x, xdp and xsf) 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</p>	