



Overview	<p>Maths A' Level (Edexcel)</p> <p>Designed to advance learners' skills while developing knowledge, Edexcel's qualifications help learners either progress to higher education or go directly into employment. They are grounded in the quality and traditions of the British education system made relevant for today's UK and international learner.</p>
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	Half Term 1	Half Term 2	Assessment
Autumn Term	<p>Algebraic Methods</p> <ul style="list-style-type: none"> ■ Proof by Contradiction ■ Algebraic fractions ■ Partial fractions ■ Repeated factors ■ Algebraic division <p>Functions and Graphs</p> <ul style="list-style-type: none"> ■ The modulus functions ■ Functions and mappings ■ Composite functions ■ Inverse functions ■ $y = f x$ $y = f(x)$ ■ Combining transformations ■ Solving modulus problems. <p>Sequences and series</p> <ul style="list-style-type: none"> ■ Arithmetic sequences ■ Arithmetic series ■ Geometric sequences ■ Geometric series 	<p>Sequences and series continued</p> <ul style="list-style-type: none"> ■ Sum to infinity ■ Sigma notation ■ Recurrence relations ■ Modelling with series <p>Binomial expansion</p> <ul style="list-style-type: none"> ■ Expanding $(1 + x)^n$ ■ Expanding $(a + bx)^n$ ■ Using partial fractions <p>Radians</p> <ul style="list-style-type: none"> ■ Radian measures ■ Arc length ■ Areas of sectors and segments ■ Solving Trigonometric equations ■ Small angle approximations 	<p>At the end of November, we have our first Mock which covers all A' level content covered to date</p>

	Half Term 3	Half Term 4	Assessment
Spring Term	<p>Trigonometric function</p> <ul style="list-style-type: none"> ■ Secant, cosecant and cotangent ■ Graphs of sec x, cosec x, cot x ■ Using sec x, cosec x, cot x ■ Trigonometric identities ■ Inverse trigonometric functions <p>Trigonometry and modelling</p> <ul style="list-style-type: none"> ■ Additional formulae ■ Using the angle addition formulae ■ Double angle formulae ■ Solving trigonometric equations ■ Simplify $a \cos x \pm b \sin x$ ■ Proving trigonometric identities ■ Modelling with trigonometric functions <p>Parametric equations</p> <ul style="list-style-type: none"> ■ Parametric equations ■ Using trigonometric identities ■ Curve sketching ■ Points of intersection ■ Modelling with parameters 	<p>Differentiation sin x and cos x</p> <ul style="list-style-type: none"> ■ Differentiation sin x and cos x ■ Differentiating exponents and logarithms ■ The chain rule. ■ The product rule. ■ The quotient rule. ■ Differentiating trigonometric functions ■ Parametric differentiation ■ Implicit differentiation ■ Using second derivatives ■ Rates of change <p>Integration</p> <ul style="list-style-type: none"> ■ Integrating standard functions ■ Integrating $f(ax + b)$ ■ Integrating trigonometric identities 	<p>A final Mock is sat during HT4</p>

	Half Term 5	Half Term 6	Assessment
Summer Term	<p>Integration continued</p> <ul style="list-style-type: none"> ■ Reverse chain rule ■ Integration with substitution ■ Integration by parts ■ Partial fractions ■ Integration as the limit of a sum ■ Finding areas ■ The trapezium rule ■ Integration with Parametric equations. ■ Solving differential equations ■ Modelling with differential equations <p>Numerical methods</p> <ul style="list-style-type: none"> ■ Locating roots ■ Iteration ■ The newton Raphson Method ■ Applications to modelling <p>Vectors</p> <ul style="list-style-type: none"> ■ 3D coordinates ■ Vectors in 3D ■ Solving geometric problems ■ Application to mechanics 		

Useful Resources for Supporting Your Child at Home:	Homework:
<p>https://integralmaths.org/ https://padlet.com/andrewharrison6/ks5-resources-uej0gwybac1nnc9f</p>	<p>Homework is much more extensive, and we expect students to take control of their own work and spend longer on It (a minimum of 300 mins per week). Minimum Expectations are:</p> <ul style="list-style-type: none"> ■ All questions especially “P” & “E” questions from exercises in the textbooks are to be completed self-marked and corrected. ■ All MEI Section test to be completed online this is marked by the online program ■ When requested Topic Assessment tests and exam practice questions might be set by teachers. <p>Other Topic specific questions are available in Class Material in Teams.</p>