

Radnor House Sevenoaks - Curriculum Overview Maths year 13.

Students of our Edexcel A level in Maths will develop an understanding of mathematics and mathematical processes, develop the ability to reason logically and construct mathematical proofs, and understand coherence and progression in mathematics and how different areas of mathematics can be connected. - See more at: <http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2008.html#sthash.ekFkRtlu.dpuf>

Our Edexcel A level Mathematics specification enables students to follow a flexible course in maths (including Pure Mathematics, Further Mathematics and Additional Further Mathematics) to suit their individual needs and goals. - See more at: <http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2008.html#sthash.ekFkRtlu.dpuf>

The specification can be found at - <http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2008.html>

Other useful websites for A Level Maths include:

Online resources:

<http://www.mathsnetalevel.com/>

<http://www.examsolutions.co.uk>

<http://www.revisionmaths.co.uk>

<http://www.physicsandmathstutor.com/>

http://www.themathsteacher.com/a_level_maths.php

<http://www.mrbartonmaths.com/alevelnotes.htm>

<http://www.angelfire.com/folk/mcook/p1-p3.pdf>

<http://www.mathcentre.ac.uk/>

<http://thematshfaculty.org/category/pure/algebra/>

<https://nrich.maths.org/discus/messages/27/27.html?1196027299>

<http://www.furthermaths.org.uk/>

Maths Careers:

<http://www.mathscareers.org.uk/>

<http://www.ima.org.uk/quiz/>

<http://www.topuniversities.com/student-info/careers-advice/what-can-you-do-mathematics-degree>

<http://www.futuremorph.org/14-16/next-steps/follow-your-favourite-subject/careers-from-maths/>

<https://plus.maths.org/content/Career>

	Autumn Term 13 WEEKS	Spring Term 10 WEEKS	Summer Term 12 WEEKS
<p>Year 13</p> <p>5 hours per week</p> <p>No of weeks in brackets</p>	<p>C3 – Algebra, Functions, Trigonometry, Calculus.</p> <ol style="list-style-type: none"> 1) Graphical Transformations (1 week) <ul style="list-style-type: none"> • Sketching graphs of modulus functions, solving equations involving modulus functions, applying combinations of transformations. 2) Trigonometry (2 weeks) <ul style="list-style-type: none"> • Using sec, cosec and cot, proving identities and solving equations using sec, cosec and cot, addition formula, double angle formula, factor formulae. 3) Differentiation (2 weeks) <ul style="list-style-type: none"> • Chain rule, product rule, quotient rule, differentiating e^x, sin, cos, tan. <p>S2 –</p> <ol style="list-style-type: none"> 1) Binomial distribution (1 week) 2) Poisson distribution (1 week) 3) Normal approximations (0.5 weeks) 4) Continuous random variable. (0.5 weeks) 5) Uniform Distributions (0.5 weeks) 	<p>C4 – Partial fractions, parametric equations, Vectors, Calculus.</p> <ol style="list-style-type: none"> 1) Partial Fractions (0.5 weeks) <ul style="list-style-type: none"> • Partial fractions (denominators not more complicated than repeated linear terms). 2) Coordinate geometry in (x,y) plane (1 week) <ul style="list-style-type: none"> • Cartesian and parametric equations of curves and conversion between the two forms. 3) Binomial expansion (0.5 weeks) <ul style="list-style-type: none"> • Binomial series for any rational n. 4) Calculus (3 weeks) <ul style="list-style-type: none"> • Differentiation of simple functions defined implicitly or parametrically. • Formation of simple differential equations • Integration by substitution and parts. • Volumes of revolution 5) Vectors (2 weeks) <p>Scalar products, Vector equation of lines, angles between lines.</p> <p>S2 –</p> <ol style="list-style-type: none"> 1) Populations and samples (1 week) 2) Hypothesis Testing. (2weeks) 	<p>The Summer Term is spent preparing for the A2 examination.</p> <p>Revision will include:</p> <ul style="list-style-type: none"> • Content • Exam Style • Past Paper Preparation • Study Skills • C4 & S2 mocks.

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