

## Radnor House Sevenoaks - Curriculum Overview Maths year 11 (Foundation GCSE)

Our students follow a two-year GCSE course which allows them to develop an understanding of mathematics and mathematical processes, develop the ability to reason and apply their skills and knowledge to problem solving.

The GCSE 9-1 specification and sample resources can be found at <http://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.coursematerials.html#filterQuery=category:Pearson-UK:Category%2FSpecification-and-sample-assessments>

Other useful websites for A Level Maths include:

Online resources:

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

<http://www.mathswatchvle.com>

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

<http://www.counton.org/>

<http://www.what2learn.com/home/examgames/maths/>

<http://www.bbc.co.uk/education/levels/z4kw2hv>

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>

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	Autumn Term 12 WEEKS	Spring Term 11 WEEKS	Summer Term 9 WEEKS
<p><b>Year 10</b></p> <p><b>5 hours per week</b></p> <p><b>No of weeks in brackets</b></p> <p><b>Any excess weeks allow for assessment and regular revision weeks linked to PLC's.</b></p>	<p>1. Quadratic equations and graphs (3 weeks)</p> <ul style="list-style-type: none"> <li>• Multiply double brackets, square single brackets, recognise quadratic expressions and functions</li> <li>• Graph and solve problems associated with quadratic functions</li> <li>• Solve quadratic equations by factorising</li> </ul> <p>2. Perimeter, area and volume (2 weeks)</p> <ul style="list-style-type: none"> <li>• Circumference and area of circles and sectors of circles</li> <li>• Cylinders; volume and surface area</li> <li>• Volume and surface area of cones, pyramids and spheres</li> <li>• Composite solids</li> </ul> <p>3. Fractions, indices and standard form (2 weeks)</p> <ul style="list-style-type: none"> <li>• Four rules of number applied to mixed numbers</li> <li>• Laws of indices (no fractions or negatives)</li> <li>• Four rules of number applied to numbers written in standard form, including negative powers</li> </ul> <p>3. Congruence, similarity and vectors (2 weeks)</p> <ul style="list-style-type: none"> <li>• Similarity and congruence</li> <li>• Enlargement, including finding the scale factor of the enlargement</li> <li>• Vectors; addition, subtraction, resultant, multiples</li> </ul> <p>4. Algebra (3 weeks)</p> <ul style="list-style-type: none"> <li>• Graphs of cubic and reciprocal functions</li> <li>• Changing the subject of a formula</li> <li>• Simultaneous equations; graphical and algebraic solutions</li> <li>• Prove results using algebra (expressions, equations, formulae and identities)</li> </ul>	<p>This term is devoted to formal mocks and a review of the syllabus. General revision of entire syllabus before mocks approx. 2 weeks.</p> <ul style="list-style-type: none"> <li>• Review: Area and volume. (1 week)</li> <li>• Review: Graphs (1 week)</li> <li>• Review: Equations and Inequalities. (1 week)</li> <li>• Review: Probability (1 week)</li> <li>• Review: Trigonometry ( 2week)</li> <li>• Review: Algebra – equations and graphs (2 weeks).</li> <li>• Review: Multiplicative Reasoning. (1 week)</li> </ul>	<p>This term is devoted to exam preparation which includes a formal mock, exam paper analysis, exam technique analysis, and a review of topics linked to PLC's.</p>

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