Radnor House Sevenoaks - Curriculum Overview Maths year 10 (Higher 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 Maths include:

Online resources:

Sparx - Radnor House Sevenoaks (sparxmaths.uk)
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

September 2023

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	Autumn Term 12 WEEKS	Spring Term 12 WEEKS	Summer Term 10 WEEKS
Year 10 **5 hours per week** **Any excess weeks allow for assessment and regular revision.**	**Area and volume** • Area and perimeter of shapes • Area perimeter of circles • Arcs and sectors • Volume and surface area of prisms • Volume and surface area of spheres, cones and pyramids • Limits of accuracy **Transformations and constructions** • Reflections • Rotations • Enlargements • Translations • Constructions • Loci • Bearings **Algebra and quadratics** • Forming and solving quadratic equations • Completing the square • Quadratic formula • Simultaneous equations • Linear and quadratic inequalities	**Probability** • Product rule for counting • Experimental probability • Probability of an event not occurring • Venn diagrams • Independent and dependant events • Tree diagrams • Probability involving algebra **Multiplicative reasoning** • Proportion involving the unitary methods • Repeated proportional change • Working with speed, density and pressure • Value for money • Best buys • Graphs of direct and inverse proportion	**Similarity and congruence** • Understand the rules of congruence • Solve angle problems involving proof of congruence • Prove shapes are similar • Similar shapes involving lengths, areas and volumes **Revision for end of year exam** **Further Trigonometry** • Sketch the graphs of sine, cosine and tangent • Know exact trig values • Transformation of trigonometric graphs • Sine and cosine rules • Area of a triangle **Statistics** • Types of data • Understand bias • Cumulative frequency • Box plots • Histograms

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