HOLLAND PARK SCHOOL 2022 to 2023

SUBJECT CURRICULUM | MATHEMATICS

SUBJECT LEADER

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CURRICULUM INTENT STATEMENT

The mathematics department aims for students to develop knowledge that builds over time, apply knowledge to solve problems and communicate the way in which they do so using mathematical language. At each Key Stage, students will study Number, Algebra, Ratio and Proportion, Geometry and Measures, Data and Statistics. The curriculum is structured to develop knowledge that builds over time with every lesson dedicating time to revisiting learning from one or more of these key strands to retrieve prior knowledge before further building on this. Students have opportunities to apply their knowledge to both multi-step problems and real life situations in both mathematical and non-mathematical contexts. Teachers promote oracy throughout mathematics lessons and encourage students to explain their thinking using mathematical language.

KS3 OVERVIEW

In Years 7, 8 and 9, students study key topics across all the key mathematical strands. Year 7 prioritises Number and Algebra with teaching and learning time more heavily weighted towards these areas. The aim of this is to ensure that students have a secure foundational knowledge, developing mathematically fluency in their numeracy and use of algebra as a target language. Developing early fluency in these areas allows students to access a curriculum that is ambitious for all. Year 8 builds on Year 7 understanding with students extending their knowledge across Number, Algebra, Ratio and Proportion, Geometry and Measures, Data and Statistics. Having focussed more heavily on Number and Algebra in Year 7, Year 8 dedicates more time towards Geometry and Measures. For example, students will study volume of more complex 3D shapes, building on Year 7 knowledge of area of 2D shapes and volume of cuboids. Year 9 builds on the core knowledge covered in Years 7 and 8 and introduces more sophisticated content, such as surds and trigonometry.

KS4 OVERVIEW

Our Key Stage 4 curriculum (Years 10 and 11) develops breadth and depth across key topics studied at Key Stage 3. The curriculum is designed to revisit prior learning from Key Stage 3 to retrieve, consolidate and develop knowledge as a journey that builds on students' current understanding. Each of the key strands (Number, Algebra, Ratio and Proportion, Geometry and Measures, Data and Statistics) are studied in Year 10, developing over time from students current starting points. Our

curriculum in Year 11 is diverse and personalised, allowing time for teaching and learning to focus on revising core content and guiding students to apply their understanding to multi-step problems in a variety of contexts.

Pearson Edexcel GCSE Mathematics: https://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html

- Paper 1 (Non Calculator, 1 hour 30 minutes, 80 marks, 33.33% of the GCSE)
- Paper 2 (Calculator, 1 hour 30 minutes, 80 marks, 33.33% of the GCSE)
- Paper 3 (Calculator, 1 hour 30 minutes, 80 marks, 33.33% of the GCSE)

KEY STAGE 5 OVERVIEW

The aim of A-level mathematics is to develop students' procedural understanding of mathematical processes developed at GCSE and develop a more conceptual view of mathematics, its interconnectivity and diverse applications. This is done through extension of Algebra and Statistical skills along with new content such as Mechanics and Calculus.

Key Stage 5 Examinations Pearson Edexcel A Level Mathematics:

https://qualifications.pearson.com/en/qualifications/edexcel-alevels/mathematics-2017.html

- Paper 1 (Pure Mathematics 1, 2 hours, 100 marks, 33.33% of the A Level)
- Paper 2 (Pure Mathematics 2, 2 hours, 100 marks, 33.33% of A Level)
- Paper 3 (Mechanics and Statistics, 2 hours, 100 marks, 33.33% of A Level)