

Subject Curriculum Map: Mathematics Year 10 Foundation Updated June 2024

Exam Board : Edexcel – 100% terminal Examination

Our Intent in Mathematics

Results - Passion for Maths – Wider Learners – Cultural Capital - High-Quality Teaching – Success

Throughout their education at Alleynes, we intend to deliver high-quality, rigorous and engaging Maths lessons, which not only ensure that students are prepared for external examinations, but also leave school with proficient Maths skills to be equipped for modern life. We want to instil a love of Maths, at every level, and encourage students to continue their Mathematical education to the highest level, where appropriate. We also aim to give students a breadth of opportunities to develop their knowledge further outside of the classroom by coming to Maths club, attending trips, speeches and competitions across a range of topics and abilities.

Our Implementation of the Curriculum

Starter – Quality of Delivery – Assessment – Homework – Recap and Retrieval

In our Maths department, we pride ourselves on a well-structured delivery of the curriculum. We start all lessons with a consistent starter with the clear objective of recap and retrieval. The lessons consist of high-quality teaching from experienced and dedicated teachers, followed by rigorous practise and assessment. Monitoring tests are set 4 times a year to ensure that we can monitor progress accurately. This allows teachers to address and misconceptions and reteach and gaps. Students receive quality exam-practice, and are set to ensure teaching at the correct level. Assessed homework is set every 4 weeks. This provides us another opportunity for recap and retrieval, as well as monitoring progress on the most recent topics.

The Impact of our Curriculum

Results – Aspiration – Positive Feedback – Success

Our curriculum delivers consistently good GCSE and A Level results, above the national average. It has helped the department to achieve an increase in A Level numbers in the past 2 years, alongside launching a successful Level 2 Further Maths qualification. We believe that students enjoy Maths, and thrive on the consistency and challenge we provide. Internal monitoring, such as student voice, book scrutiny and lesson observations all reflect this view.

Year 10	Aut 1 Weeks	Revisit Opportunity 5: Units 5-8	Aut 2 weeks	Revisit Opportunity 6: Units 6-9	Spring 1 weeks	Revision Opportunity: Mocks	Spring 2 Weeks	Revision Opportunity: Mocks	Summer 1 weeks	Revisit Opportunity 7: Units 7-10	Summer 2 weeks	Revisit Opportunity 8: Units 9-13
Themes/Concepts/Ideas	Algebra/SSM		SSM/Number		SSM		Statistics/SSM		SSM		Revision/Catch Up Algebra	
Unit	9 & 10		10 & 11		12		13 & 14		15		16	
Knowledge and understanding	Real Life Graphs and Algebraic linear graphs Transformations Translations Reflections enlargements rotations		Transformations Translations Reflections enlargements rotations Ratio and Proportion		Right Angle Triangles Pythagoras Theorem Introduce Trigonometry		Probability Understand likelihood of an event Understand probability scales Know how to write probabilities Know theoretical probability Work out probabilities from tables –find missing probabilities Multiplicative Reasoning		Constructions, triangles, nets, plans and elevations, loci, scale drawing and bearings		Quadratic Equations and Graphs	
Subject specific skills- Prior Knowledge	Plot Coordinates, read scales from Unit 3 Draw straight line graphs from Unit 3 Interpret graphs Learn about $Y=mX+c$ Know metric units and change between them from Unit 8 Recall basic shapes from Unit 6 Plot in all 4 quadrants from Unit 9 Understand the concept of rotation Draw and recognise lines parallel to axis and diagonal lines from Unit 9		Recall basic shapes from Unit 6 Plot in all 4 quadrants from Unit 9 Understand the concept of rotation Draw and recognise lines parallel to axis and diagonal lines from Unit 9 Know the four operations of Number from Unit 1 Understand fractions as being “parts of a whole” from Unit 4 Know standard units of measurement from Unit 8		Rearrange simple formula & equations from Unit 2 Recall basic angle facts from Unit 6 Understand how to leave answers in surd form from Unit 1 Draw axes and plot in all 4 quadrants from Unit 9		Be able to add & multiply fractions from Unit 4 Be able to express one number as a fraction of another from Unit 4 Interpret Scales on a range of measuring instruments Be able to find percentages and change between percentages and decimals from Unit 4 Rearrange equations and use them to solve problems from Unit 2 Know Speed/Distance/Time and Density/Mass /Volume formulae from Unit 9		Measure and draw lines Use protractors & compasses Know compass points		Be able to square a number inc negative numbers from Unit 1 Substitute into formulae from Unit 2 Plot points on a coordinate grid from Unit 3,9,10 Expand single brackets and collect like terms from Unit 2	
SMSC	Have a set of Values Safe Learning Environment Show persistence Appreciate the role of mathematics Explore patterns/relationships Appreciate the intangible Benefit from Advice Work successfully in a group Exercise Responsibility Take a Leadership Role	Explore patterns/relationships Benefit from Advice Work successfully in a group Exercise Responsibility Take a Leadership Role Safe Learning Environment Develop the ability to reflect Show Persistence Use logical Reasoning	Use logical reasoning Benefit from advice Show persistence Develop the ability to reflect Appreciate the Role of Mathematics Appreciate the Heights of Human Achievement	Appreciate the Role of Mathematics Appreciate the Heights of Human Achievement Benefit from Advice Appreciate the intangible Recognise the Use and misuse of Data Benefit from Advice Develop the ability to reflect Take a leadership role Show persistence	Draw conclusions based on Evidence Develop the ability to reflect Have a set of Values Show persistence Benefit from advice Take a leadership Role	Draw conclusions based on Evidence Develop the ability to reflect Appreciate the Role of Mathematics Appreciate the Heights of Human Achievement Benefit from Advice Show persistence						

