

Westfield Academy - Curriculum Information

Building on the knowledge and skills developed throughout Year 10 and Key Stage 4, your child will refine and apply their GCSE mathematics understanding across all major topics in preparation for their final examinations. They will develop fluency and accuracy in algebra, geometry, trigonometry, probability and statistics, while strengthening their ability to make inferences, interpret mathematical information and solve complex, multi-step and unfamiliar problems. Students will also focus on improving exam technique through structured practice, including walking talking mock sessions, helping them to develop confidence in selecting appropriate methods, justifying reasoning, and avoiding common errors. They will continue to enhance their mathematical communication by using precise language and clearly structured explanations in readiness for their GCSE assessments.

Maths

Head of Department	C. Okemadu	
Head of Department email	cho@westfield.academy	
Lessons per 2 week cycle	8	
Specification/Board details/Key stage	OCR	

Term by term

Autumn 1	Autumn 2	Spring 1
Multiplying and Dividing by Powers of 10 Standard Rounding Factors, Multiples, and Primes Vectors and Translations FDP Percentage Change Simple Interest Forming Expressions and Collecting Like Terms Ratios Pie Charts Probability Angles	Solving Equations Change of Subject Expanding and Factorising Expressions with Shapes Volume and Surface Area of Cubes and Cuboids Linear Graphs Circles (Circumference and Area) Product of Prime Factors Lowest Common Multiple (LCM) Highest Common Factor (HCF) Square Numbers, Cube Numbers, Square Roots and Cube Roots MOCK 1	Review of topics from Yr. 11 Mock QLA MOCK (Final)

Spring 2	Summer 1	Summer 2
Practice Papers	Practice Papers GCSE EXAMS	GCSE EXAMS
Key Skills developed	<p>Exam Preparation and Walking Talking Mocks – Developing confidence and familiarity with GCSE-style questions through structured revision and guided practice, including walking talking mock sessions to model expert problem-solving and decision-making in real time.</p> <p>Exam Technique and Method Selection – Strengthening the ability to choose appropriate methods efficiently under timed conditions, ensuring accurate application of mathematical procedures and effective problem-solving strategies.</p> <p>Reasoning and Structured Communication – Improving the clarity and precision of mathematical explanations, including how to set out working logically, justify answers, and present solutions in line with exam expectations.</p> <p>Fluency Under Timed Conditions – Building speed and accuracy when applying core mathematical skills across all topic areas, while maintaining careful attention to detail and reducing common errors.</p> <p>Inference and Interpretation of Questions – Developing the ability to extract key information from complex exam questions, identify what is being asked, and make appropriate mathematical inferences to guide solutions.</p> <p>Error Analysis and Misconception Correction – Recognising and addressing common mistakes through guided feedback, improving accuracy and understanding of how marks are awarded in GCSE examinations.</p> <p>Problem Solving in Exam Contexts – Applying multi-step reasoning to unfamiliar problems, using a range of strategies to break down and solve questions effectively under exam conditions.</p>	
Useful Websites	<p>https://maths.sparx-learning.com/teacher/school-settings/su_bscription</p> <p>https://corbettmaths.com/</p> <p>https://mathsgenie.co.uk/</p> <p>https://www.mathslinks.co.uk/</p>	

Reading/Literacy requirements /Key Words	Powers Standard Form Rounding Factors Prime Numbers FDP Percentage Change Ratio Expression Equation Expand Factorise Coordinates Gradient Probability
Homework requirements	Once a week
Personal Development Links	https://corbettmaths.com/5-a-day/gcse/ https://sites.google.com/westfield.academy/ks3maths/home
Trips/Visits (If applicable)	<p>Robotic Project: The mission is to develop future Space scientists and AI Engineers. We joined the National Robotics & STEM Project, organised by First Tech Challenge UK and Ireland (https://firstuk.org/), designed to equip our students with hands-on experience in engineering, coding, problem-solving, teamwork, and innovation.</p> <p>UKMT Challenge: The mission is to develop confident, high-level mathematical thinkers through participation in the nationally recognised UK Mathematics Trust Challenge. This prestigious national competition attracts students from schools across the UK, providing an opportunity to compete at a recognised national standard.</p> <p>Students tackle rigorous, non-routine problems that strengthen logical reasoning, precision, and resilience under timed conditions, raising aspirations and celebrating mathematical excellence.</p>