

Westfield Academy - Curriculum Information

Building on the foundations established in Year 7, your child will deepen their understanding of number, algebra, geometry and proportional reasoning. They will tackle increasingly complex problems, developing their ability to reason mathematically, make connections between topics and select efficient strategies to solve unfamiliar questions. Students will continue to strengthen their mathematical literacy by using subject-specific vocabulary accurately, explaining their thinking clearly and justifying their solutions with confidence.

Maths

Head of Department	C. Okemadu	
Head of Department email	cho@westfield.academy	
Lessons per 2 week cycle	7	
Specification/Board details/Key stage	OCR/Edexcel	

Term by term

Autumn 1	Autumn 2	Spring 1
Exploring Indices and Standard Form Exploring Fractions and Percentages Student Research/Problem Solving	Algebra Student Research/Problem Solving	Exploring Geometry and Measures Exploring Transformations Student Research/Problem Solving
Spring 2	Summer 1	Summer 2
Exploring Proportionality Exploring Compound Measures Student Research/Problem Solving	Exploring Geometry and Measure Exploring Compound Measures Student Research/Problem Solving	Probability and Statistics Student Research/Problem Solving
Key Skills developed	Number and Advanced Calculation – Working with powers, roots, indices and standard form, applying	

	<p>calculation skills accurately with and without a calculator.</p> <p>Algebraic Reasoning and Graphs – Solving and rearranging equations, expanding expressions, generating nth-term rules, interpreting linear graphs, and understanding gradients and intercepts.</p> <p>Ratio, Proportion and Compound Measures – Solving direct proportion problems, working with similar shapes, and applying compound measures including speed, density and other rates.</p> <p>Geometry and Measure – Calculating circumference, area, arc length, sectors, volume and surface area, applying Pythagoras' Theorem, and exploring transformations, vectors and enlargement.</p> <p>Geometrical Reasoning and Construction – Investigating angle relationships, bearings, properties of quadrilaterals, constructions, symmetry and representations of 3D shapes.</p> <p>Statistics and Probability – Analysing and comparing data using averages and range, interpreting charts and scatter graphs, understanding correlation, and calculating probabilities using sample spaces and probability laws.</p> <p>Problem Solving, Reasoning and Mathematical Communication – Applying mathematical knowledge in increasingly complex contexts, interpreting information, justifying methods, and communicating solutions using accurate mathematical vocabulary.</p>
Useful Websites	<p>https://maths.sparx-learning.com/teacher/school-settings/sucription</p> <p>https://corbettmaths.com/</p> <p>https://mathsgenie.co.uk/</p>
Reading/Literacy requirements /Key Words	<p>Index</p> <p>Standard Form</p> <p>Integer</p> <p>Coefficient</p> <p>Substitute</p> <p>Expression</p> <p>Equation</p> <p>Formula</p> <p>Subject</p> <p>Circumference</p> <p>Area</p>

	Arc Sector Ratio Proportion Subject of Formula Angle Parallel Polygon Bearing Locus
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>Money Matters: The mission is to develop financially informed, responsible, and independent young people. Through practical financial literacy sessions, students explore budgeting, saving, investing, and managing money in real-world contexts.</p> <p>Like our wider enrichment programmes, Money Matters promotes critical thinking, decision-making, and problem-solving as students navigate realistic financial scenarios. It builds confidence, encourages responsible habits from an early age, and equips students with the knowledge and skills needed for long-term financial security and future success.</p> <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>

