Westfield Academy - Curriculum Information

Building on the knowledge and skills developed at Key Stage 2, your child will strengthen their understanding of number, calculation, fractions, decimals and percentages while being introduced to more advanced mathematical concepts. A strong focus will be placed on problem-solving, reasoning and developing resilience when tackling unfamiliar questions. Students will also develop their mathematical literacy by learning to use key vocabulary accurately, explain their methods clearly and justify their solutions using mathematical language.

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

WESTFIELD ACADEMY
believe | strive | achieve

Term by term

Autumn 1	Autumn 2	Spring 1
Exploring numbers Exploring algebraic notation Student Research/Problem Solving	Exploring numbers Exploring Fractions Student Research/Problem Solving	Exploring Fractions Decimals and Percentages Exploring Ratios Student Research/Problem Solving
Spring 2	**Summer 1**	**Summer 2**
Exploring Algebraic notations and substitutions Exploring Algebra manipulations Student Research/Problem Solving	Exploring geometry Exploring angles and symmetry of shapes Student Research/Problem Solving	Exploring Algebra Exploring Algebraic equations Student Research/Problem Solving

Key Skills developed	**Number and Calculation** – Fluency with integers, decimals, fractions, percentages, indices, rounding, estimation, factors, multiples, primes, HCF and LCM.

	Ratio, Proportion and Financial Mathematics – Ratio, sharing quantities, percentages, percentage change, multipliers and proportional reasoning. **Algebraic Thinking** – Using algebraic notation, substitution, simplifying expressions, factorising, sequences and solving linear equations. **Geometry and Measure** – Area, perimeter, angles, constructions, symmetry and coordinate geometry. **Statistics and Data Representation** – Constructing and interpreting pie charts. **Problem Solving and Mathematical Reasoning** – Applying mathematical methods in practical contexts, estimating, interpreting results and selecting appropriate strategies.
Useful Websites	https://maths.sparx-learning.com/teacher/school-settings/subscription https://corbettmaths.com/ https://mathsgenie.co.uk/
Reading/Literacy requirements /Key Words	Add Subtract Multiply Divide Value More than Less than Negative Inverse Operations Estimate Identify Work out Prime number Integer Denominator, unit fraction, numerator Like-terms
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)	**Mind Missions:** The mission is to develop resilient, analytical thinkers who can apply mathematical reasoning in dynamic, real-world contexts. Each Year 7 student is given an age- and ability-appropriate challenge that requires collaboration, strategic thinking, and the application of diverse mathematical and problem-solving skills. Through structured, hands-on missions, students work collectively to gather, interpret, and apply key information in order to successfully complete their objective. Like our Robotics and Brain Buster programmes, Mind Missions foster teamwork, perseverance, adaptability, and logical reasoning. This experience enables students of all abilities to engage meaningfully, make measurable progress in their thinking skills, build confidence beyond the classroom, and raise their expectations of what they can achieve both academically and personally. **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. **Happy Puzzle:** Brain Buster Workshop: The mission is to develop strategic thinkers and innovative problem-solvers. Through structured, high-level puzzle challenges, students engage in analytical reasoning, logical deduction, and collaborative problem-solving. Like the Robotics project, the workshop promotes resilience, adaptability, and teamwork by immersing students in complex, real-world style scenarios that require persistence and creative thinking. This experience strengthens cognitive agility, builds confidence, and cultivates the critical thinking skills essential for future academic and professional success. **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. Students tackle rigorous, non-routine problems that strengthen logical reasoning, precision, and resilience under timed conditions, raising aspirations and celebrating mathematical excellence.