

Maths Department: Curriculum Overview 2023-24

Curriculum Intent:

In Maths, IT & Computing, our aims are for all students;

- To have a passion for and resilience towards Maths, IT and Computing
- To develop strong problem solving, digital literacy and numeracy skills
- To be able to communicate their learning in Maths, IT and Computing effectively
- To be aware of E-Safety and how to report concerns and keep themselves safe & healthy online
- To gain qualifications to best prepare students for life after Fullbrook

Maths: Implement	<ul style="list-style-type: none">• Mastery Scheme of work in Year 7 & 8 to create a greater depth of understanding. SoW was developed and agreed collaboratively, based on staff feedback• Year 9 will see harder topics from Y7-8 stretched further, to prepare for the CGSE course• GCSE course starts one full cycle at the beginning of Y10, finishing at Christmas of Y11, to leave plenty of time for revision• Teachers to work collaboratively on designing thought-provoking and meaningful 100-minute lesson plans that follow the learning cycle• Key Stage 3 assessments to be re-designed to reflect new SoW, but also new assessment format, with 20 marks multiple choice at the start• Year 9 Low attainers entered into the Edexcel Entry Awards to provide opportunities to experience success• Yellow Feedback Sheets, highlighted so students can clearly see what they are doing well on and what they need to work on. Students respond to this (by completing INT Questions)• Focus on Problem Solving within lessons• T&L Maths meetings to discuss pedagogy with a focus on Problem Solving and mathematical communication• UKMT Maths Challenges• OCR Additional Maths offered in Year 10 & 11• Numeracy Challenge in tutor time every cycle• Primary School Team Maths Challenge• Marking Policy is only to mark formative and summative assessment points, but not mark books, to reduce workload and be more beneficial to the students.• Open Book Tests to encourage the students to make more accurate and detailed notes• Use Profiles for Success to help support disadvantaged students• Key Stage Leaders attend Maths Hubs courses for latest pedagogy• Interleaving – will regularly take place in the form of starters in lessons and through Open books tests, Assessments, End of Year Tests and Mocks• Reading & Vocabulary – Tier 3 Vocabulary taught and recorded in students' books using purple D.V.I. sheets• Keywords for each topic on SoW and learning logs (which are put in the students' books)• Discuss the importance of vocab in Maths Teaching & Learning meetings
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Year 11	Term 1				Term 2			Term 3				End Points
	Half Term 1 [12 lessons]		Half Term 2 [12 lessons]		Half Term 3 [10 lessons]	Half Term 4 [11 lessons]		Half Term 5 [10 lessons]		Half Term 6 [10 lessons]		
Topic	Pythagoras, Trigonometry, Vectors	Probability	Algebraic Graphs	MOCKS	Angles	Perimeter, Area, Volume	Similar Shapes	REVISION	REVISION			
Skill	Geometry	Statistics	Algebra		Geometry	Geometry	Proportion					
Content	Pythagoras in different contexts SOH CAH TOA Exact Trig Values Sine and Cosine Rules $\frac{1}{2} ab \sin C$ 3d Pythagoras and Trigonometry Trig Graphs Column Vectors Vector problems, including proving lines are parallel, points are co-linear	Frequency Trees Two way tables Venn Diagrams Set notation Relative Frequency Tree Diagrams Dependent events Conditional Probability	$Y = mx + c$ Plot non-linear graphs Identify roots, intercepts and turning points Graph Transformations		Angles in parallel lines Angles in polygons Circle Theorems Bearings Congruent shapes Proof of congruency	Arcs and Sectors Volume of prisms, cylinders, cones, pyramids Surface area of a cylinder Surface Area of a cone Volume of a frustum	Find missing lengths Show shapes are similar Convert between measures of area and volume Understand lengths, areas, volumes in 2D and 3D similar shapes Find missing surface areas and volumes of similar shapes					
Prior Knowledge Required	Pythagoras, SOH CAH TOA	Tree Diagrams, Venn Diagrams			Angles in Parallel Lines, Angles in polygons	Area and Volume of shapes	Similar and congruent definitions					
Feedback Points		Open Book Test		MOCKS		MOCKS						
Key Questions												
Direct Vocab Instruction	Hypotenuse Adjacent Opposite Sine Cosine Tangent Vector Scalar Parallel	Experimental Theoretical Mutually exclusive Mutually exhaustive Trial Sample space Outcome Venn diagram Independent Dependent Union Intersect Complement	Midpoint Gradient Intercept Function Root Turning point/Vertex Solution Quadratic Cubic Reciprocal		Opposite Alternate Corresponding Interior Exterior Polygon Congruent Similar Bearing Proof Radius Tangent Chord Diameter	Area Perimeter Volume Compound shape Surface area Arc Sector Radius Diameter Circumference Sphere Prism Pyramid Cone	Congruent Similar Scale Factor Length Area Volume					
Standardised Homework	Exam Questions, GCSE Papers	Exam Questions, GCSE Papers	Exam Questions, GCSE Papers	Exam Questions, GCSE Papers	Exam Questions, GCSE Papers	Exam Questions, GCSE Papers	Exam Questions, GCSE Papers					