



CHS Curriculum Intent

SUCCESSFUL: Learners who gain deep and powerful knowledge in preparation for life; combining academic rigour, curiosity and creative flair.

CREATIVE: Learners who are imaginative, optimistic and inventive; finding their voice to become effective communicators prepared for lifelong adaptability

HAPPY: Learners who are confident, resilient, well-rounded citizens; they understand the world's communities and are ready to discover their place in it.

CHS Curriculum Area Framework for Learning – Year 10

SUBJECT	Maths
INTENT	Maths is a universal language that explains the world around us. The study of Mathematics enables you to make sense of everyday situations, forge links between topics and establish connections to real life context. Maths fosters curiosity, equipping students with various strategies to tackle problems; it empowers students with resilience to take risks, get it wrong, form a new strategy and start again, with determination and drive to reach the final answer. Maths is logical thinking, reasoning, intuition, analysis, construction, generalisation and beauty.

Year Group	10					
Rationale/ Narrative	Year 10 continues to equip students to problem solve and reason with resilience and determination. Students will consolidate and extend their existing skills gained in Year 9. Students will work on a range of GCSE topics, applying their skills to complex situations and promoting their communication and strategising throughout. Students will become more familiar with the GCSE assessment and expectations.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2



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<p>KNOWLEDGE</p>	<p><u>Ratio and Proportion</u></p> <ul style="list-style-type: none"> • Proportion • Ratio and scales • Percentage Change <p><u>Equations and Inequalities</u></p> <ul style="list-style-type: none"> • Solving linear equations • Solving quadratic equations • Solving simultaneous equations • Using iterative processes to approximate solutions • Solving inequalities 	<p><u>Factors, Powers and Roots</u></p> <ul style="list-style-type: none"> • Factors and multiples • Prime factor decomposition • Powers and roots <p><u>Graphs 1</u></p> <ul style="list-style-type: none"> • Drawing straight-line graphs • Equation of straight line • Kinematic graphs 	<p><u>Pythagoras and Trigonometry</u></p> <ul style="list-style-type: none"> • Pythagoras' Theorem • Trigonometry • Vectors <p><u>Handling data</u></p> <ul style="list-style-type: none"> • Frequency diagrams • Averages and spread • Scatter graphs and correlation • Time series <p><u>Calculations 2</u></p> <ul style="list-style-type: none"> • Calculating with roots and indices • Exact calculations • Standard Form 	<p><u>Preparation for Progress Checkpoint</u></p> <ul style="list-style-type: none"> • Revision of key topics covered across <p><u>Graphs 2</u></p> <ul style="list-style-type: none"> • Properties of quadratic functions • Sketching functions • Real-life Graphs 	<p><u>Circles and Constructions</u></p> <ul style="list-style-type: none"> • Circumference • Area • Surface area of 3D shapes such as cones, cylinders • Arc length and sector area • Constructions • Loci <p><u>Units of proportionality</u></p> <ul style="list-style-type: none"> • Compound Units • Direct Proportion • Inverse Proportion • Growth and Decay <p><u>Working with 3D shapes</u></p> <ul style="list-style-type: none"> • 3D shapes • Volume of a prism • Volume and surface area 	<p><u>Working with 3D shapes cont.</u></p> <ul style="list-style-type: none"> • 3D shapes • Volume of a prism • Volume and surface area <p><u>Angles</u></p> <ul style="list-style-type: none"> • Calculating missing angles: <ul style="list-style-type: none"> -around a point -in a straight line -in a triangle -in a quadrilateral -in parallel lines • Coordinates • Congruence • Similarity • Angle sum in polygons
<p>SKILLS</p>	<p>Multiplying and dividing by powers of ten Percentage multipliers Visualising and drawing shapes Reading maps and scales</p>	<p>-Recalling factors, multiples and primes -Square numbers -Cube numbers -Reading axes -Drawing and labelling axes</p>	<p>Substitution Recalling formulae Pattern recognition Trends and relationships Substitution Multiplication Division Addition</p>	<p>Reading axes Drawing and labelling axes Substitution Calculator skills Number skills Ability to answer problem-solving questions Recalling formulae</p>	<p>Use of language in probability Manipulation of equations Ability to answer problem-solving questions</p>	<p>Addition Subtraction Multiplication Division FDP Mental Methods Solving multistep word problems</p>



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	<p>Ability to answer problem-solving questions</p> <p>Collecting like terms</p> <p>Simplifying expressions</p> <p>Expanding brackets</p> <p>Factorising expressions</p> <p>Drawing inequalities on a number line</p>	<p>-Ability to answer problem-solving questions</p> <p>-Substitution</p> <p>-Plotting coordinated</p> <p>-substitution</p> <p>- Reading from graphs accurately</p>	<p>Subtraction</p> <p>Ability to mathematically reason</p> <p>Recognising different parts of shapes</p> <p>Use of mathematical equipment</p> <p>Ability to mathematically reason</p> <p>Use of square numbers</p> <p>Use of a calculator</p> <p>Index laws</p>			<p>Recalling and manipulating formulae</p> <p>Substitution</p>
ASSESSMENTS	<p>1 x Ratio and Proportion assessment</p> <p>1 x Equations and Inequalities assessment</p>	<p>1 x Factors, Powers, Roots assessment</p> <p>1 x progress checkpoint</p>	<p>1 x Pythagoras and Trigonometry unit assessment</p> <p>1 x Handling Data assessment</p>	<p>1 x Calculations unit assessment</p> <p>1 x progress checkpoint</p>	<p>1 x Circles and constructions unit assessment</p> <p>1 x Units of proportionality unit assessment</p>	<p>1 x Working in 3D unit assessment</p> <p>2 x progress checkpoint (one non calculator and one calculator)</p>



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