

All Saints' Academy Mathematics KS4 Curriculum 2023-24

Cycle	Year 10 Foundation	Year 10 Higher	Year 11	
	Knowledge & Skills	Knowledge & Skills	Knowledge & Skills	
1	Algebra: <ul style="list-style-type: none"> Laws of Indices Multiplying linear expressions Factorising Quadratic Expressions Changing the subject Number: <ul style="list-style-type: none"> Standard Form Error Intervals Compound Growth and Decay Construction: <ul style="list-style-type: none"> Perpendicular bisector of a line Angle bisector Shortest distance from point to a line Proportion: <ul style="list-style-type: none"> Simplifying ratios and sharing ratios Best buys 	Algebra: <ul style="list-style-type: none"> Laws of Indices Multiplying linear expressions Factorising Quadratic Expressions Changing the subject Number: <ul style="list-style-type: none"> Standard Form Indices and Surds Error Intervals Compound growth and decay Geometry: <ul style="list-style-type: none"> Pythagoras' Theorem and 3D shapes Fractional and negative enlargements Similar Shapes and Triangles Area and Volume Scale Factor Construction: <ul style="list-style-type: none"> Perpendicular bisector of a line Angle bisector Shortest distance from point to a line Proportion: <ul style="list-style-type: none"> Simplifying ratios and sharing ratios Best buys Connected Ratios 	Foundation <ul style="list-style-type: none"> Revision and preparation for mocks 	Higher <ul style="list-style-type: none"> Circle Theorems Quadratic Inequalities Sine and Cosine Rule Revision and preparation for mocks
Careers	Quantity Surveyor	Meteorologist	College options needing Mathematics	University options with Mathematics
2	Geometry: <ul style="list-style-type: none"> Area of rectilinear shapes, triangles and circles Sector perimeter and area Area of compound shapes Surface Area and Volume of Prisms Pythagoras' Theorem 	Geometry: <ul style="list-style-type: none"> Spheres, pyramids, cones, frustums and composite solids Sector perimeter and area Area of compound shapes Algebra: <ul style="list-style-type: none"> Algebraic fractions Constant of proportionality 	Revision and preparation for mocks	

	Algebra: <ul style="list-style-type: none"> • nth term of linear sequences • Straight Line graphs • Simultaneous Equations Data Handling: <ul style="list-style-type: none"> • Scatter graphs and Line of Best Fit • averages from tables and grouped intervals 	<ul style="list-style-type: none"> • Straight line graphs • Linear and quadratic sequences • Simple Geometric progressions. • Linear inequalities and inequality regions • Simultaneous Equations – Linear, Quadratic and Circle Equations as one of the equations 	
Careers	CAD Technician	Acoustic Consultant	
3	Probability: <ul style="list-style-type: none"> • Product Rule for Counting • Two-way tables • Venn Diagrams • Tree Diagrams and Conditional Probability Geometry: <ul style="list-style-type: none"> • Angles in Polygons • Trigonometry Algebra: <ul style="list-style-type: none"> • Solving Quadratic Equations algebraically and from their graphs 	Algebra: <ul style="list-style-type: none"> • Quadratic, cubic, exponential and reciprocal graphs • Tangent to a circle • Completing the Square • Solving Quadratic Equations algebraically and from their graphs Probability: <ul style="list-style-type: none"> • Product Rule for Counting • Two-way tables • Venn Diagrams • Tree Diagrams and Conditional Probability Geometry: <ul style="list-style-type: none"> • Angles in Polygons • Trigonometry • Vectors Statistics: <ul style="list-style-type: none"> • Cumulative frequency graphs & box plots • Histograms. 	Revision and preparation for final examinations.
Careers	Sports Science and Analysis	Statistician	