

MATHEMATICS

YEAR 10 Crossover

AUTUMN 1

Linear Equations & Inequalities <ul style="list-style-type: none"> - Solving Linear Equations & Inequalities - Solve Simultaneous Equations 	Powers and Surds <ul style="list-style-type: none"> - Indices - Reciprocals - Converting Decimals and Fractions - Surds 	Accuracy <ul style="list-style-type: none"> - Bounds - Error intervals 	Direct and Inverse Proportion <ul style="list-style-type: none"> - Solve direct proportion problems - Solve inverse proportion problems 	RAR <p>Teachers will use assessment data to revisit topics to improve these skills.</p>	Prior Learning <ul style="list-style-type: none"> -Equations (Year7Spr1) -Indices (Year8Aut2/ Year9AAut1) -Converting FDPs (Year8Spr1) -Powers (Year8Aut1) -Error Intervals (Year8Aut1)
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AUTUMN 2

Quadratic Equations <ul style="list-style-type: none"> - Factorising quadratics including with a coefficient of x^2 - Solve quadratics using the formula - Solve a quadratic by completing the square 	Circle Theorems <ul style="list-style-type: none"> - Use Circle Theorems to solve angle problems 	RAR <p>Teachers will use assessment data to revisit topics to improve these skills.</p>	Assessment and QLA <p>Students will receive personalised feedback and revisit personalised topics.</p>	Prior Learning <ul style="list-style-type: none"> -Compound Measures (Year8Aut1) -Proportion (Year8Spr2/ Year9Aut1) -Quadratic Equations (Year9Aut2) -Angles (Year7Spr2/ Year9Aut2)
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SPRING 1

Quadratic and Other Graphs <ul style="list-style-type: none"> - Draw and Interpret Quadratic Graphs - Plot cubic, exponential and reciprocal graphs - Recognise and plot the equation of a circle 	Simultaneous Equations <ul style="list-style-type: none"> - Solving simultaneous equations where one is non-linear 	RAR <p>Teachers will use assessment data to revisit topics to improve these skills.</p>	Prior Learning <ul style="list-style-type: none"> -Simultaneous Equations (Year10HAut1)
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SPRING 2

Triangles <ul style="list-style-type: none"> - Solve 2D problems involving Pythagoras and Trigonometry - Solve 3D problems involving Pythagoras and Trigonometry - Solve problems with non-right angled triangles using the Sine and Cosine Rule. 	RAR <p>Teachers will use assessment data to revisit topics to improve these skills.</p>	Assessment and QLA <ul style="list-style-type: none"> - Students will receive personalised feedback and revisit personalised topics. 	Prior Learning <ul style="list-style-type: none"> -Transformations (Year9HSum2) -Pythagoras/ Trigonometry (Year9ASpr1) -Probability (Year9ASpr2/ Year7Aut2)
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SUMMER 1

Quadratic & Geometric Sequences <ul style="list-style-type: none"> - Generate terms of quadratic and geometric sequences - Find the nth term of quadratic sequences 	Complex Statistical Diagrams <ul style="list-style-type: none"> - Solve Equations - Solve Inequalities - Solve linear Simultaneous Equations 	Algebraic Fractions <ul style="list-style-type: none"> - Simplifying - Multiplying - Solving 	Bearings <ul style="list-style-type: none"> - Read and calculate bearings - Use advanced trigonometry to solve bearing problems 	RAR <p>Teachers will use assessment data to revisit topics to improve these skills.</p>	Prior Learning <ul style="list-style-type: none"> -Statistical Diagrams (Year9Sum1/ Year7Spr1) -Fractions (Year8Spr1/ Year9AAut1) -Translations Year9ASum2
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CAREERS LINKS

Accountancy, chef, banking insurance, bookmaking, risk analyst, news reporting, analyst, businessperson, performance analyst. Actuaries, economist, meteorologist, carpenter, welder, construction, architecture, joinery, games designer, software design & IT, engineering, catering, hairdressing.

CHARACTER LINKS

Perseverance and determination skills are fostered (performance virtues) particularly when students do not arrive at the correct answer first time and when trial and error skills are needed.

KEY ASSESSMENT DATES

Year 10 will have an assessment at the end of every unit (approximately 2-3 weeks). They will have one large assessment at both February and then at the end of the year which will test all the topics that the students have covered.

SUMMER 2

Complex Probability <ul style="list-style-type: none">- Calculate the probability of combined events- Calculate probabilities from tree diagrams including conditional probabilities	-	RAR <ul style="list-style-type: none">- Teachers will use assessment data to revisit topics to improve these skills.	Assessment and QLA <p>Students will receive personalised feedback and revisit personalised topics.</p>	Prior Learning <ul style="list-style-type: none">- Substitution (Year7Spr1/ Year8Aut2/ Year9AAut2)-Line Graphs (Year9CAut2)- Compound measures Year10H/Aut2
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