

Curriculum Overview Template

	Focus	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11 Higher Maths	Key concepts/ideas	Trigonometry Rearranging formula Time series Nth term of quadratics Iteration	HIGHER GOLD STARTS HERE Proportion equations Laws of indices Pythagoras and trig (3D) Recurring decimals	Upper and lower bounds Histograms Sine and cosine rule Arcs and sectors Surds Completing the square	Probability Congruency Vectors Quadratic simultaneous equations Transforming graphs	Revision (missed out topics): Tangents of circles Algebraic proof Product of more than 2 brackets Solve quadratic inequalities Algebraic fractions	EXAM!
	Key skills	Trigonometry – Label sides O,A and H on right angled triangles. Define and use sine, cosine and tangent to find missing sides and angles. Rearranging formula – Rearrange formula where the subject appears twice, or as a power. Use function notation to find inverse and composite functions. Time series – Interpret and draw time series graphs. Nth term of quadratics Iteration – use iteration formula to find approximate solutions.	HIGHER GOLD STARTS HERE Proportion equations – Identify direct and inverse proportion. Write both as a formula, including proportional to x^2 and other variations. Laws of indices – Fractional, negative and zero powers in simplifying number and algebra. Pythagoras and trig (3D) – Use 3D Pythagoras and/or trigonometry to find missing sides, angles between sides and angles between a side and plane. Recurring decimals – Convert a recurring decimal to fraction and vice versa.	Upper and lower bounds – Use a calculator to find the bounds of calculations (all 4 operations), particularly in the context of measurement. Histograms – Draw and interpret histograms for grouped data. Understand frequency density. Sine and cosine rule – Calculate the area of non-right-angled triangles. Use the sine and cosine rule in 2D and 3D. Arcs and sectors – Find the lengths of arcs and area and perimeter of sectors. Calculate volume and surface area of cones, pyramids and spheres (including frustums). Leave answers in terms of pi. Surds – Use surds in exact calculations, simplify expressions and rationalise the denominator. Completing the square – Write expressions in completing the square form. Find turning points and solve. Solve using the quadratic formula.	Probability – Understand the addition rule for mutually exclusive and multiply rule for independent events. Calculate conditional probabilities from tree and Venn diagrams. Congruency – Understand and use SSS, SAS, ASA, RHS conditions to prove congruency. Vectors – Understand and use vector notation. Calculate and represent graphically: the sum, the difference and a scalar multiple. Calculate resultant vectors. Solve vector problems. Quadratic simultaneous equations – Recognise and use the equation of a circle (centre 0,0). Solve linear and quadratic simultaneous equations by elimination or substitution and graphically. Transforming graphs – Recognise, draw, and identify properties of trig graphs. Know the effects of $f(ax)$, $af(x)$, $f(x + a)$, $f(x) + a$ and be able to apply them to linear and quadratic graphs.		
	Key terms/vocab	Approximate, Iterative, Formula, Subject, Function, Quadratic, Sequence, Hypotenuse	Inverse, Direct, Proportional, Plane, Index, Recurring, Rational	Bound, Accuracy, Rounding, Frequency, Arc, Sector, Frustum, Surd, Rationalise, Expression	Mutually exclusive, Congruency, Vectors, Scalar, Transformation, Conditional, Resultant		
	Independent learning / wider reading	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	
	Assessment	Problem solving task	Mock exam (November)	Exam papers for homework	Mock exam (March)	Exam papers	REAL EXAM!
Careers links	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist		