

Subject: Maths

Year group: Year 11

Department Curriculum Vision:

	Autumn Term 1	Autumn Term 2
Content: (Know what...)	Further Geometry Calculate area, perimeter, volume and surface area. Apply circle theorems to finding missing angles (H) Further Algebra Forming and solving linear equations, solving simultaneous equations including quadratics (H), manipulating and solving equations with algebraic fractions and solving equations by iteration (H)	Further algebra continued Use function notation and solve equations by iteration (H) and more complex simultaneous equations Further graphs Complex graph problems such as equation of circles, tangents to non linear graphs, transforming graphs including trigonometric curves.
Skills: (know how...)	- to calculating area and perimeter of 2D shapes - To calculate volume and surface area of 3D shapes - To apply the circle theorems (H) - To form and solve linear equations - Be able to manipulate and solve equations involving algebraic fractions (H)	- To solve simultaneous equations - Solve quadratic simultaneous equations (H) - To solve problems involving the equation of a line, parallel and perpendicular lines - Solve equations by iteration (H) - To Use function notation and form composite and inverse functions (H) - To solve simultaneous equations including quadratic simultaneous equations (H)

Key vocabulary	Area, perimeter, volume, surface area, trapezium, parallelogram, tangent, chord, sphere, cone, frustrum, equations, simplify, fractions,	Iteration, function, composite, inverse, parallel, perpendicular,
Mid Term Assessment	N/A	N/A
End Term Assessment	In class assessment - one hour paper covering a range of topics from Year 10 and Year 11	December PPE - full set of three papers
	Spring 1	Spring 2
Content: (Know what...)	Further graphs Complex graph problems such as equation of circles, tangents to non linear graphs, transforming graphs including trigonometric curves. Further number Convert numbers in standard form and carry out calculations. Estimate calculations and work out the upper and lower bounds Product rule counting	Revision tailored to specific group and needs

Skills: (Know how...)	- Find the equation of a circle and the equation of a tangent to a circle (H) - Sketch and solve trigonometric graphs - To transform graphs (H) - Draw and interpret distance time graphs - Find the gradient of a non linear graph and apply this to - To carry out calculations in standard form - Estimate calculations to an appropriate degree of accuracy - To calculate upper and lower bounds of calculations and identify error intervals due to rounding or truncation - Be able to work out combinations of events using the product rule for counting	
Key vocabulary	Transform, speed, distance, gradient, estimation, bound, accuracy, significant figure, product	
Mid Term Assessment	N/A	N/A
End Term Assessment		March PPE series
	Summer 1	Summer 2
Content: (Know what...)	Tailored revision	

Skills: (Know how...)		
Key vocabulary		
Mid Term Assessment		
End Term Assessment		

Additional information

Homework	Homework will be generally be a mix of exam style questions and tailored practice
Extra curricular and enrichment opportunities	Intervention will run at periods throughout the year UKMT competitions
Useful links that will support learning	Sparx can be used for independent learning to target knowledge on specific topics Maths Genie, Corbett Maths, CGP textbooks
How parents can support learning	Ensure students are doing regular revision at home. As they get closer to the exam they can begin doing past papers Review PPE and assessments with students to identify areas for improvement

