

Year 11 Curriculum Grid

Mathematics



Year/Term	Unit	Intent				
0 "		Foundation	Foundation Plus	Higher	Higher Plus	
Overall						
Autumn	Number			Calculate with fractional		
				indices and negative		
	Algobro		Factorico quadratia	Cimplify algebraic fractions	Add and subtract algebraic	
	Algebra		expressions including using	Add and subtract algebraic	fractions. Use algebraic	
			the difference of two squares	fractions Lise algebraic	techniques to show	
			the unterchee of two squares.	techniques to show	expressions are equivalent.	
				expressions are equivalent.	Formulate proofs using	
				Formulate proofs using	algebraic techniques.	
				algebraic techniques.		
	Measures and	Find the perimeter of a				
	Estimation	sector. Find angle of sectors				
		given arc length.				
	Functions and Equations	Solve linear equations where	Solve linear equations where	Find composite functions	Find composite functions	
		the unknown is on both sides.	the unknown is on both sides.	algebraically. Solve linear	algebraically. Solve linear	
		Find roots of quadratic	Find roots of quadratic	equations by adding or	equations by adding or	
		equations by factorising and	equations by factorising and	subtracting algebraic	subtracting algebraic	
		Using the quadratic formula.	Using the quadratic formula.	mactions. Find roots of	mactions. Find roots of	
		simultaneous equations from	simultaneous equations from	completing the square Derive	completing the square Derive	
		a situation	a situation	and solve quadratic equations	and solve quadratic equations	
				from a situation. Solve two	from a situation. Solve two	
				simultaneous equations. one	simultaneous equations. one	
				linear, and one circular.	linear, and one circular.	
				Derive and use iterative	Derive and use iterative	
				formula.	formula.	



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	Translation and Vectors	Add and subtract two vectors	Understand relationship	Understand relationship	Understand relationship	
		numerically. Find the	between parallel vectors,	between perpendicular	between perpendicular	
		resultant of two vectors.	midpoints of vectors.	vectors. Show vectors are	vectors. Show vectors are	
		Understand relationship		parallel and perpendicular.	parallel and perpendicular.	
		between parallel vectors,		Show when points are	Show when points are	
		midpoints of vectors.		collinear. Vector proofs.	collinear. Vector proofs.	
	Angles	Solve problems using all angle	Use accurate drawings to	Prove the circle theorems	Prove the circle theorems	
		and parallel line rules, giving	solve bearing problems.	concerning angles, radii,	concerning angles, radii,	
		reasons. Use accurate		tangents and chords and use	tangents and chords and use	
		drawings to solve bearing		them to prove related results.	them to prove related results.	
		problems.				
	Graphs and Tables	Identify gradient and y-	Find equation of linear graph	Coordinate geometry problem	Coordinate geometry problem	
		intercept of a linear graph and	given a point and the gradient	solving and proofs. Sketch	solving and proofs. Sketch	
		find equation. Plot linear	or given two points.	graphs of quadratic functions,	graphs of quadratic functions,	
		graphs using gradient and y-	Solve two simultaneous	including finding the turning	including finding the turning	
		intercept. Solve two linear	equations graphically where	points by completing the	points by completing the	
		simultaneous equations	one is linear and one	square. Recognise and use the	square. Recognise and use the	
		graphically. Understand two	quadratic. Plot cubic and	equation of a circle with	equation of a circle with	
		parallel lines have same	reciprocal graphs. Interpret,	centre at the origin. Find the	centre at the origin. Find the	
		gradient. Find equation of	create and/or complete	equation of a tangent to a	equation of a tangent to a	
		linear graph given a point and	velocity-time graphs.	circle at a given point.	circle at a given point.	
		the gradient or given two				
		points.				
		Solve two simultaneous				
		equations graphically where				
		one is linear and one				
		quadratic. Plot cubic and				
		reciprocal graphs. Interpret,				
		create and/or complete				
		velocity-time graphs.				
Spring	Year 11 PPEs – first two weeks in January – revision during lessons if applicable.					
Spring	From mid-January students revise work from throughout the course.					
	The content of these lessons is determined by the outcome of PPE exams from January and assessments that where completed in December.					



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