GCSE Maths Year 11 (Foundation) Curriculum Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	Graphs						Algebra					
Autumn	Gradients & lines		Non-linear graphs		Using graphs		Expanding & factorising		Changing the subject		Functions	
	Reasoning					Revision and Communication						
Spring	Multiplicative Geome		netric	Algebraic		Transforming& constructing			Listing & describing	Show	that	
Summer	Revision								Exami	nations		

	Autu	mn	Spi	ring	Summer		
	Learning Cycle 1	Learning Cycle 2	Learning Cycle 3	Learning Cycle 4	Learning Cycle 5	Learning Cycle 6	
Торіс	Graphs	Algebra	Reasoning	Revision & communication	Revision	Revision	
Critical Prior Knowledge	Year 10 learning cycle 1 – consolidation of straight-line graphs Year 9 learning cycle 6 – non-linear graphs Year 10 learning cycle 4 – growth & decay problems,	(Revisit directed number arithmetic) Year 10 learning cycle 1 & 2 -solve simultaneous equations Year 9 learning cycle 1 – change the subject of a formula	Year 9 learning cycle 5 – compound measures, Year 9 learning cycle 6 – conversion graphs, direct & inverse proportion, Year 10 learning cycle 5 – types of sequences, n th term,	Year 11 learning cycle 1 – different types of graphs Year 10 learning cycle 1 - Pythagoras' theorem & trigonometry			
Overall Intent (Big ideas & key concepts) Essential Knowledge milestones	Gradients & lines Non-linear graphs Using graphs Equations of lines parallel to the axis (R)	Expanding & factorising Changing the subject Functions Expand & factorise with a single bracket (R)	Multiplicative Geometric Algebraic Use scale factors (R) Understand direct	Transforming & constructing <i>Listing & describing</i> Show that Perform & describe line symmetry & reflection (R)			
	Plot straight line graphs (R)]		proportion				

Autu	mn	Spi	ring	Summer		
Learning Cycle 1	Learning Cycle 2	Learning Cycle 3	Learning Cycle 4	Learning Cycle 5	Learning Cycle 6	
Graphs	Algebra	Reasoning	Revision & communication	Revision	Revision	
nterpret y = mx + c (R) Find the equation of a straight line from a graph (1) (R) Find the equation of a straight line from a graph (2) Equation of a straight-line graph given one point & a gradient Equation of a straight graph given two points Determine whether a point is on a line Solve linear simultaneous equations graphically	Expand binomials (R) Solve equations equal to 0 Solve linear equations (R) Solve inequalities (R) Form & solve equations & inequalities in the context of shape Change the subject of a simple formula (R) Change the subject of a known formula Change the subject of a complex formula	Calculate with pressure & density Understand inverse proportion Construct inverse proportion equations Ratio problems (R) Angles at points (R) Angles at points (R) Angles in parallel lines & shapes (R) Exterior & interior angles of polygons Proving geometric facts Solve problems involving vectors Pythagoras'	Perform & describe rotation/rotational symmetry (R) Perform & describe translations of shapes (R) Perform & describe enlargements of shapes (R) Identity transformations of shapes (R) Perform & describe a series of transformations of shapes Perform standard constructions using ruler & protractor or ruler & compasses (R)			
	Learning Cycle 1 iraphs hterpret y = mx + c R) ind the equation of straight line from a raph (1) (R) ind the equation of straight line from a raph (2) quation of a traight-line graph iven one point & a radient quation of a straight raph given two oints betermine whether a oint is on a line olve linear imultaneous	Learning Cycle 1Learning Cycle 2irraphsAlgebrahterpret y = mx + c R)Expand binomials (R)ind the equation of straight line from a raph (1) (R)Expand binomials (R)ind the equation of straight line from a raph (2)Expand binomials (R)quation of a traight-line graph iven one point & a radientForm & solve equations & inequalities in the context of shapequation of a straight raph given two ointsForm & solve equations & inequalities in the context of shapequation of a straight raph given two ointsChange the subject of a simple formula (R)Petermine whether a oint is on a lineChange the subject of a known formula Change the subject of complex formula	Learning Cycle 1Learning Cycle 2Learning Cycle 3iraphsAlgebraReasoningnterpret y = mx + c R)Expand binomials (R)Calculate with pressure & densityind the equation of straight line from a raph (1) (R)Solve equations equal to 0Understand inverse proportionind the equation of straight line from a raph (2)Solve linear equations (R)Construct inverse proportionquation of a traight-line graph iven one point & a radientForm & solve equations & inequalities in the context of shapeAngles at points (R) Angles at points (R)quation of a straight raph given two ointsChange the subject of a simple formula (R)Exterior & interior angles of polygonsquation of a line olve linear imultaneous quations graphicallyChange the subject of complex formula Change the subject of complex formula Proving vectorsSolve problems involving vectorsolve linear imultaneous quations graphicallyChange the subject of complex formulaSolve problems involving vectors	Learning Cycle 1Learning Cycle 2Learning Cycle 3Learning Cycle 3iraphsAlgebraReasoningRevision & communicationiraphsAlgebraReasoningRevision & communicationiraphsAlgebraCalculate with pressure & densityPerform & describe rotation/rotational symmetry (R)interpret y = mx + cSolve equations equal to 0Understand inverse proportionPerform & describe rotation/rotational symmetry (R)solve equations fraight line from a raph (1) (R)Solve linear equations (R)Construct inverse proportionPerform & describe enlargements of shapes (R)quation of a traight line from a raph (2)Form & solve equations & inequalities (R)Angles at points (R)Perform & describe enlargements of shapes (R)quation of a traight raph given two ointsChange the subject of a simple formula (R)Angles in parallel lines & shapes (R)Perform & describe a series of transformations of shapesetermine whether a oint is on a lineChange the subject of a known formula (Change the subject of complex formula inultaneous quations graphicallySolve problems (R)Perform standard constructions using ruler & protractor or ruler & compasses (R)	Learning Cycle 1Learning Cycle 2Learning Cycle 3Learning Cycle 4Learning Cycle 5iraphsAlgebraReasoningRevision & communicationRevisioninterpret y = mx + cExpand binomials (R)Calculate with pressure & densityPerform & describe rotation/rotational symmetry (R)RevisionSolve equations equal to 0Understand inverse proportionPerform & describe rotation/rotational symmetry (R)Perform & describe rotation/rotational symmetry (R)ind the equation of straight line from a raph (1) (R)Form & solve equations (R)Construct inverse proportionPerform & describe translations of shapes (R)quation of a traight-line graph iven one point & a ointsForm & solve equations & inequalities in the context of shapeAngles at points (R) Angles in parallel lines & shapes (R)quation of a straight raph given two ointsChange the subject of a simple formula (R)Angles of polygons angles of polygonsIdentity transformations of shapesetermine whether a oint is on a line olve linear quations graphicallyChange the subject of complex formula Proving geometric factsPerform standard constructions using ruler & protractor or ruler & compasses (R)	

	Autu	Imn	Sp	ring	Summer		
	Learning Cycle 1	Learning Cycle 2	Learning Cycle 3	Learning Cycle 4	Learning Cycle 5	Learning Cycle 6	
Торіс	Graphs	Algebra	Reasoning	Revision & communication	Revision	Revision	
		Use function	trigonometrical				
		machines (R)	ratios (R)	Work with			
	Plot & read from			organised lists			
	quadratic graphs	Substitute into	Simplify complex				
		expressions &	expressions	Sample spaces &			
	Plot & read cubic	formulae (R)		probability (R)			
	graphs		Find the rule for				
		Use function	the nth term of a	Complete & use			
	Plot & reciprocal graphs	notation	linear sequence (R)	Venn diagrams (R)			
		Work with	Use rules for	Construct &			
	Recognise graph	composite	sequences	interpret plans &			
	shapes	functions		elevations (R)			
			Formal algebraic				
	Identify & interpret	Work with inverse	proof	Use data to			
	roots & intercepts of	functions		compare			
	quadratics			distributions (R)			
		Graphs of quadratic					
	Reflect shapes in	functions		Interpreting scatter			
	given lines (R)			diagrams (R)			
		Understand & use		<i>"</i>			
	Construct & interpret	trigonometric		"Show that" with			
	conversion graphs (R)	functions (R)		number			
	Construct & interpret			"Show that" with			
	other real-life			algebra			
	straight line graphs						
	(R)						

	Autu	mn	Sp	ring	Summer		
	Learning Cycle 1	Learning Cycle 2	Learning Cycle 3	Learning Cycle 4	Learning Cycle 5	Learning Cycle 6	
Торіс	Graphs	Algebra	Reasoning	Revision & communication	Revision	Revision	
	Interpret distance/time graphs Construct distance/time graphs Construct & interpret speed/time graphs Construct & interpret piece-wise graphs Recognise & interpret graphs that illustrate direct & inverse proportion Find approximate solutions to equations using graphs			"Show that" with shape "Show that" with angles "Show that" with data "Show that" with congruent triangles			
Cultural Capital	Year 11 Enriching mathematics 1	Year 11 Enriching mathematics 2	Practical Maths for real world	Practical Maths for real world			
Mode of Retrieval	PiXL Wave	Gap Filling assessment from Wave	PiXL Wave	Gap Filling assessment from Wave	Past Paper questions targeted revision	Past Paper questions targeted revision	

	Autu	ımn	Sp	ring	Summer				
	Learning Cycle 1	Learning Cycle 2	Learning Cycle 3	Learning Cycle 4	Learning Cycle 5	Learning Cycle 6			
Торіс	Graphs	Algebra	Reasoning	Revision & communication	Revision	Revision			
ECC Student Characteristics	Be aspirational. Be knowledgeable & al circumstances. Have confidence & cor	Always endeavour to show resilience. Be aspirational. Be knowledgeable & able to deeply understand & recall information easily & be skilled in applying this knowledge in a range of circumstances. Have confidence & communicate effectively Know how to behave well & respect other members of our community when sharing ideas remembering to be mutually tolerant &							