Year 10 Higher Scheme of learning 2023 - 2024
Term 3

Stretch key learning in italics

Topic	Key learning	Mathswatch Clip No	☹	☺	😊
Accuracy & Bounds	Calculate upper and lower bounds of numbers given to varying degrees of accuracy	206			
	Find the upper and lower bounds of calculations involving perimeter, area and volume	206			
	Use inequality notation to specify an error interval	155			
	Find upper and lower bounds in real life situations	206			
Circle Theorems	Prove and use angle in a semi circle is a right angle & opposite angles in a cyclic quadrilateral sum to 180º	183			
	Prove and use all circle theorems	184			
	Find and give reasons for missing angles on diagrams	183 & 184			
	Solve problems that involve reasoning and provide counter arguments	183 & 184			
Circle Geometry	Select and apply construction techniques	197			
	Find the equation of a tangent to a circle at a given point	197			
	Recognise and construct the graph a circle (r centred at the origin)	197			
	Justify if a straight line graph would pass through a circle	197			
Quadratics & Circles	Expand the product of more than two linear expressions	178			
	Identify intersection points of a quadratic and linear graph	140			
	Solve quadratic inequalities in one variable by factorising	212			
	Use iteration with simple converging sequences	179 & 180			
May half term					
Transformations	Enlarge a shape by a given scale factor and centre	141, 181a, 181b			
	Describe and transform 2d shapes using combined transformations	182			
	Recognise and describe reflections on a coordinate grid	48			
	Find the centre of a rotation by trial and error	49			
	Describe fully a single transformation with all relevant information	48 – 50, 141			
Mocks (2 weeks)					
Vectors & Geometry proof	Understand and use vector notation	174			
	Calculate the sum, difference and scalar multiple of a vector	219			
	Find the length of vector using Pythagoras' Theorem	219			
	Solve geometric problems in 2D where vectors are divided in a given ratio	219			
	Produce geometric proofs to prove points are collinear and vectors/ lines are parallel	219			
Summer Holidays					