

# Year 11 Foundation Scheme of learning 2023-2024 - Term 1

*Stretch key learning in italics*

Topic	Key learning	MathsWatch Clip No	⊗	☹	😊
Statistics and sampling	Recognise types of data: primary secondary, quantitative and qualitative	63			
	Find averages from a list and tables including grouped frequency tables	62, 65, 130a, 130b			
	<i>Understand how sources of data may be biased</i>	152			
	<i>Explain why a sample may not be representative of a whole population</i>	152			
Plans and elevations	Draw sketches of 3D solids				
	Know the terms face, edge and vertex	43			
	Identify and sketch planes of symmetry of 3D solids				
	Understand and draw front and side elevations and plans of shapes	51			
	Given the front and side elevations and the plan of a solid, draw a sketch of the 3D solid	51			
Quadratic equations	Multiply together two algebraic expressions with brackets	134a, 134b			
	Square a linear expression, e.g. $(x + 1)^2$	158			
	Factorise quadratic expressions	157			
	Factorise a quadratic expression $x^2 - a^2$ using the difference of two squares	158			
Quadratic Graphs	Recognise a linear, quadratic, cubic, reciprocal and circle graph from its shape	98, 161, 194			
	Generate points and plot graphs for quadratic functions	98			
Rearranging equations	Know the difference between an equation and an identity and use and understand the $\neq$ symbol				
	Change the subject of a formula involving the use of square roots and squares	136			
October Half Term					
Graphs of cubics and reciprocals	Recognise, sketch and interpret graphs of simple cubic functions	161			
	<i>Recognise, sketch and interpret graphs of the reciprocal function <math>1/x</math> with <math>x \neq 0</math></i>	161			
	<i>Identify and interpret the gradient from an equation <math>ax + by = c</math></i>	96, 97			
Vectors	Represent movement using a column vector	174			
	Calculate using column vectors	174			
	<i>Draw vectors and use scalars</i>	174			
Ratio	Simplify ratios, write ratios as fractions and in the form 1:n	38			
	Share amounts into a ratio	106			
	<i>Solve problems involving ratios</i>	106			
Mocks (2 weeks )					
Gap fill/ Review of papers					
Christmas holidays					

## Year 11 Foundation Scheme of learning 2023-2024 - Term 2

*Stretch key learning in italics*

Topic	Key learning	MathsWatch clip no	☹	☺	😊
Simultaneous equations	Form and solve linear equations	<b>100, 137</b>			
	Solve simultaneous equations algebraically and graphically	<b>140, 162</b>			
	<i>Solve simultaneous equations representing a real-life situation</i>	<b>140, 162</b>			
Similarity and congruence	Use angle facts for missing angles	<b>45, 120 &amp; 121</b>			
	Enlarge a shape by a given scale factor	<b>148</b>			
	<i>Use the basic congruence criteria for triangles (SSS, SAS, ASA, RHS)</i>	<b>166</b>			
	Solve problems to find missing lengths in similar shapes	<b>144</b>			
	<i>Understand the effect of enlargement on perimeter of shapes</i>				
Loci, Constructions and bearings	Estimate and measure lengths and angles	<b>46a</b>			
	Draw accurate lengths and angles	<b>46b</b>			
	Draw and measure bearings	<b>124</b>			
	Construct perpendicular bisectors and angle bisectors	<b>145 – 146</b>			
	<i>Use constructions to solve loci problems</i>	<b>165</b>			
February Half Term					
Mocks (2 weeks)					
Gap fill/ Review of papers					