



Longfield Learning Journey



Key Stage 4 HIGHER	Unit of work: Graphs 2	
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Key Words:	Prerequisites Green core – Blue extend	R	A	G
Quadratic, cubic, reciprocal, inverse, exponential, trigonometric, kinematic, tangent,	Sketch real-life graphs and calculate the gradient of line graphs.			
	Solve quadratic equations using factorisation or the quadratic formula.			
	Substitute numerical values into expressions.			

	Content: Graphs 2	R	A	G
A12	Recognise, sketch and interpret graphs of quadratic functions.			
A12	Recognise, sketch and interpret graphs of simple cubic functions.			
A12	Recognise, sketch and interpret graphs of the reciprocal function $y=1/x$ with $x \neq 0$.			
A12	Recognise, sketch and interpret graphs of exponential functions $y=k^x$ for positive values of k.			
A12	Recognise, sketch and interpret graphs of the trigonometric functions (with arguments in degrees) $y = \sin x$, $y = \cos x$ and $y = \tan x$ for angles of any size			
A13	Sketch translations and reflections of a given function.			
A14	Plot and interpret graphs in real-life contexts, to find an approximate solution, such as kinematic problems involving distance, speed and acceleration			
R14	Interpret the gradient of a straight line graph as a rate of change.			
R14	Recognise and interpret graphs that illustrate inverse proportion.			
A15	Calculate or estimate gradients of graphs (including quadratics and other non-linear graphs).			
A15	Calculate or estimate the areas under graphs (including quadratics and other non-linear graphs).			
A16	Recognise and use the equation of a circle with centre at the origin.			
A16	Find the equation of a tangent to a circle at any given point.			
G9	Identify and apply circle definitions and properties, including: centre, radius, chord, diameter, tangent.			

K	W	L
<i>What you know</i>	<i>What you want to know</i>	<i>What have you learned</i>