

Straight Lines & Real-Life Graphs:

Objective	Sparx Task	
Plot and draw graphs of $y=a$, $x=a$, $y=x$ and $y=-x$	U315	
Use function machines or other methods to find coordinates a plot linear functions	U741	
Find the gradient and y-intercept of a linear function	U477	
Find the equation of a line from a plotted function	U477	
Sketch a function from a gradient and an intercept	U477	
Find the coordinates of a midpoint of a line segment	U933	
Draw straight line graphs from real life situations and interpret (including gradients)		
Use distance/time and speed/time graphs	U462 U403	
Identify and describe equations of parallel lines	U377	
Find the equations of a line through one point with a given gradient	U848	
Find approximate solutions to a linear equation from a graph		

Rearranging, Simultaneous Equations & more complex Graphs:

Objective	Sparx Task	
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;	U556	
Answer 'show that' questions using consecutive integers ($n, n + 1$), squares a^2, b^2 , even numbers $2n$, and odd numbers $2n + 1$;		
Solve problems involving inverse proportion using graphs, and read values from graphs;		
Recognise, sketch and interpret graphs of simple cubic functions;	U980	
Write simultaneous equations to represent a situation;		
Recognise, sketch and interpret graphs of the reciprocal function with $x \neq 0$;		
Solve simultaneous equations (linear/linear) algebraically and graphically;	U760 U757	
Solve simultaneous equations representing a real-life situation, graphically and algebraically, and interpret the solution in the context of the problem;	U836	

Year 11 Objective List – Foundation

HT4 – 2022-23

Revision of Pythagoras and Trig:

Objective	Sparx Task	
Use Pythagoras' theorem in 2D (including surds)	U370	
Apply Pythagoras in different contexts such a coordinate geometry and with a range of shapes and units		
Recall the trigonometric ratios for Sine, Cosine and Tangent	U605	
Use trig to find a missing length in a right-angled triangle	U283	
Use trig to find an angle in a right-angled triangle (includes angles of elevation/depression)	U545	
Solve problems using trigonometry/Pythagoras that incorporate other aspects of the syllabus such as area and perimeter.		
Know the exact trig angles for 0,30,45, 60 and 90 for all three trig ratios (excluding tan90)	U627	