

Topic List for the Yr 9 SKI Assessment June 2025		Sparx Code	R	A	G
Straight line graphs:	To draw straight line graphs	M932			
	To find midpoints of lines	M622			
	Know and compare gradients and intercepts	M544			
	Find the equation of a line	M544			
	Write an equation in the form $y=mx+c$	M888			
	Explore perpendicular and parallel lines	U377, U898			
Forming and solving equations	Solve one and two step equations	M634, M647			
	Solve one and two step equations with brackets and inequalities	M902			
	Solve equations with unknowns on both sides	M554			
	Solve inequalities including with negative numbers	M118, M732			
	Substituting into formulae and equations	M417, M327			
	Rearrange formulae	M242			
	Rearrange complex formulae including brackets and squares	M983			
Into three dimensions	Know names of 2d and 3d shapes	M276, M767			
	To draw accurate nets of 3d shapes	M518			
	To draw plans and elevations	M229			
	To calculate area of triangles, rectangles, parallelograms	M390, M635			
	To calculate area of a trapezium and compound shapes	M996, M303			
	To find surface area of cubes and cuboids	M765, M722			
	To find surface area of triangular prisms and cylinders	M534, M963			
	To find volume of 3d shapes.	M722			
	To explore volume of cones, pyramids and spheres	U116, U484			
Rates	Solve speed, distance and time problems	M247, U151			
	Solve problems with density	U910			
	Solve rates of change problems, including using graphs	M478			
Ratio and proportion	Solve problems with direct proportion	M472			
	Solve problems with inverse proportion	M665			
	Solve ratio problems given whole or part	M525, M543			
	Solve best buy problems	M681			
	Solve problems with ratio and algebra	U676			
Number	To find HCF and LCM	M698, M365			
	To solve problems with decimals, and numbers in standard form	M719, M678			
	Convert between mixed numbers and improper fractions	M601			
	To add and subtract fractions including mixed numbers	M931			
	To multiply and divide fractions including mixed numbers	M197, M265			
	To understand and use surds	U338, U633			
Using percentages	To use the equivalence of fractions, decimals and percentages	M264, M553			
	To calculate percentage increase and decrease	M476			
	To express change as a percentage	M553			
	To solve reverse percentage problems	M528			
	To solve problems with repeated percentage change	U332			
	To calculate compound and simple interest	U332			
	To solve problems with exchange rates	U610			
	To solve unit pricing problems and best buys	M681			
Angles	To solve angle problems	M351, M679			
	To solve angle problems with parallel lines	M606			
	To use and find the sum of angles in a polygon	M653			
	To solve complex angle problems	M393			
Algebraic representations	To draw and interpret quadratic graphs	U989			
	To draw and interpret reciprocal and cubic graphs	U593, U980			
	Investigate graphs of simultaneous equations	U836			
Pythagoras	To calculate missing sides in right angled triangles	U385			
	To use Pythagoras' Theorem on coordinate grid	U385			
	To use Pythagoras' Theorem in 3-d shapes	U541			
Trigonometry	To use the cosine, sine and tangent ratio to find missing sides	U605, U283			
	To use the cosine, sine and tangent ratio to find missing angles	U545			