

Quadratics:

Objective	Sparx Task	
Draw and describe translations along a given vector	U196	
Reflect a shape along a vertical/ horizontal/ diagonal mirror line	U799	
Describe reflections and identify the equation of a line of symmetry		
Draw and describe a rotation of a shape on a grid. Rotate about the origin and any other coordinate.	U696	
Identify the correct transformation from a choice of diagrams		
Enlarge a shape on a grid with no specified centre	U519	
Understand enlargements from a specified centre with a given scale factor (positive integer and fractional)		
Find a centre of enlargement and identify a scale factor from two enlargements		
Perform combinations of the above transformations and understand properties of shapes that are preserved.	U766	

Ratio and Proportion

Objective	Sparx Task	
Write a ratio to describe a situation and cancel into it's lowest form.	U687	
Understand and use the relationship between ratios and fractions	U176	
Split an amount into a given ratio. Explore this relationship	U753	
Solve a mixture of ratios problems (be able to use ratio tables)	U921	

Understand proportional amounts and links to ratio	U676	
Solve worded problems involving different types of proportion	U865	
Scale up recipes, convert currencies		
Use the unitary method/ratio tables as ways of solving proportion/best buys problems		

Year 11 Objective List – Foundation

HT2 – 2022-23

Circles:

Objective	Sparx Task	
Recall the definition of a circle and identify, name and draw parts of a circle including tangent, chord and segment;	U767	
Recall and use formulae for the circumference of a circle $2\pi r = \pi d$,	U604	
Recall and use formula: the area enclosed by a circle $= \pi r^2$; Give an answer to a question involving the circumference or area of a circle in terms of π ;	U950	
Find radius or diameter, given area or perimeter of a circles;		

Find the perimeters and areas of semicircles and quarter-circles;	U221 U373	
Calculate perimeters and areas of composite shapes made from circles and parts of circles;		
Calculate arc lengths, angles and areas of sectors of circles;		
Find the surface area of a cylinder;	U464	
Find the volume of a cylinder	U915	
Find the surface area of spheres, pyramids, cones and composite solids;	U259 U871	
Find the volume of spheres, pyramids, cones and composite solids;	U484 U116	
Solve real life problems involving mixtures of SA and volumes of more complex solids	U426	

Year 11 Objective List – Foundation

HT2 – 2022-23

Fractions, Indices and Standard Form:

Objective	Sparx Task	
Perform the 4 operations with mixed numbers.	U793 U439 U224 U538	
Find and use reciprocals of integers, fractions and decimals		

Use and understand 'reciprocal' as a multiplicative inverse		
Use index laws to simplify and calculate values of numerical expressions	U235 U694	
Understand standard form and be able to convert large and small numbers	U330 U534	
Perform all 4 operations with numbers in standard form.	U264 U290	
Use standard form with calculators	U161	