Year 11 Objective List – Foundation   HT2

Quadratics:

Objective	Sparx Task	
Define a 'quadratic' expression;		
Multiply together two algebraic expressions with brackets	U768	
Factorise quadratic expressions of the form $x2 + bx + c$;	U178	
Factorise a quadratic expression $x2 – a2$ using the difference of two squares;	U963	
Solve quadratic equations by factorising;	U228	
Generate points and plot graphs of simple quadratic functions,	U989	
Identify the line of symmetry of a quadratic graph;		
Find approximate solutions to quadratic equations using a graph;	U601	
Interpret graphs of quadratic functions from real-life problems;	U667	
Identify and interpret roots, intercepts and turning points of quadratic graphs.		

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	