Year 10 Objective List – Foundation HT4 – 2022-23

Multiplicative reasoning:

Objective	Sparx Task	
Recall speed formulae and use to find variables (or proportional reasoning)	U753 U865 U610 U151	
Interpret and understand distance/time graphs	U403 U914	
Recall and use formulae for density. Link to volumes work.	U910	
Recall and use formulae for pressure	U527	
Convert between different compound units.	U256	
Substitute into the various kinematics formulae	U144	
Use percentage as an operator (profit, loss, repeat percentage change, original amounts)	U286	
Use compound interest	U332	
Use a variety of measures within proportion problems (e.g. currency, rates of pay)	U256	
Understand types of proportion (direct/inverse) and start to interpret growth/decay problems	U721 U357 U640	

Shapes and Angles:

Objective	Sparx Task	
Understand and use properties of triangles and quadrilaterals	U628 U732	
Measure, draw and estimate angles using a protractor	U447	
Apply simple angles rules such as angles on a straight line, around a point and vertically opposite angles.	U390 U730	
Understand and use angle sum for a triangle and quadrilateral	U329	
Understand and use the parallel line angles rules	U826	

Recognise and name polygons. Understand regular and irregular polygon properties	U427	
Apply interior/exterior angles in polygons		
Solve mixed angle problems		

Pythagoras and Trigonometry:

Objective	Sparx Task	
Use Pythagoras' theorem in 2D	U385	
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	