GCSE UNIT SUMMARY: UNIT 15: Constructions: triangles, nets, plan and elevation, loci, scale drawings and bearings

15a) **Plans and elevations**

Unit Description	Taught	Revision Priority
Understand clockwise and anticlockwise;		
Draw circles and arcs to a given radius or given the diameter;		
Measure and draw lines, to the nearest mm;		
Measure and draw angles, to the nearest degree;		
Know and use compass directions;		
Draw sketches of 3D solids;		
Know the terms face, edge and vertex;		
Identify and sketch planes of symmetry of 3D solids;		
Use isometric grids to draw 2D representations of 3D solids;		
Make accurate drawings of triangles and other 2D shapes using a ruler and a protractor;		
Construct diagrams of everyday 2D situations involving rectangles, triangles, perpendicular and parallel lines;		
Understand and draw front and side elevations and plans of shapes made from simple solids;		
Given the front and side elevations and the plan of a solid, draw a sketch of the 3D solid.		

15b) **Constructions, loci and bearings**

Unit Description	Taught	Revision Priority
Understand congruence, as two shapes that are the same size and shape;		
Visually identify shapes which are congruent;		
Use straight edge and a pair of compasses to do standard constructions: understand, from the experience of constructing them, that triangles satisfying SSS, SAS, ASA and RHS are unique, but SSA triangles are not; construct the perpendicular bisector of a given line; construct the perpendicular from a point to a line; construct the bisector of a given angle; construct angles of 90°, 45°;		
Draw and construct diagrams from given instructions, including the following: a region bounded by a circle and an intersecting line; a given distance from a point and a given distance from a line; equal distances from two points or two line segments; regions may be defined by ‘nearer to’ or ‘greater than’;		
Find and describe regions satisfying a combination of loci;		
Use constructions to solve loci problems (2D only);		
Use and interpret maps and scale drawings;		
Estimate lengths using a scale diagram;		
Make an accurate scale drawing from a diagram;		
Use three-figure bearings to specify direction;		
Mark on a diagram the position of point *B* given its bearing from point *A*;		
Give a bearing between the points on a map or scaled plan;		
Given the bearing of a point *A* from point *B*, work out the bearing of *B* from *A*;		
Use accurate drawing to solve bearings problems;		
Solve locus problems including bearings.		