Lode Heath School

Mathematics Department

Year 8 Higher

Assignment Title	Unit 9: Constructions and loci	Date set	Summer 1

Summary of Unit 9		Key Words	
Use ruler and compass constructions. Solve loci problems. Construct and interpret plans and elevations of 3D shapes.		Line segment, parallel, perpendicular, horizontal, vertical, diagonal, adjacent, opposite, angle, degree, acute, obtuse, reflex, corresponding, alternate, interior, exterior, bearing, bisector, loci, locus.	

Prior Knowledge

1) Accurately draw angles of   a) 37°   b) 125°

2) Tick the nets that can be folded to make cuboids:

(a)   (b)   (c)

(d)   (e)   (f)

LEARNING JOURNEY

	Task Description

	9.1 Accurate drawings
	     Draw triangles accurately using a ruler and protractor.
	     Draw diagrams to scale.

	9.2 Constructing shapes
	     Draw accurate nets of 3D solids.
	     Construct triangles using a ruler and compasses.
	     Construct nets of 3D solids using a ruler and compasses.

	9.3 Constructions 1
	     Bisect a line using a ruler and compasses.
	     Construct perpendicular lines using a ruler and compasses.

	9.4 Constructions 2
	     Bisect angles using a ruler and compasses.
	     Draw accurate diagrams to solve problems.

	9.5 Loci
	     Draw a locus.
	     Use loci to solve problems.

Assignment Title	Unit 10: Graphs	Date set	Summer 2

Summary of Unit 10	Key Words
Plot linear graphs from a table and directly from an equation. Find the gradient and intercept of straight line graphs. Identifying parallel and perpendicular lines. Plot non-linear graphs.	Plotting, equation, coordinates, parallel, perpendicular, inverse.

Prior Knowledge

1. Find the value of 2x+3 when x =4

2. Describe how you would plot these Plot these coordinates: (3,2)   (-2 4)

3. Simplify this ratio 28:14

4. What number is halfway between 8 and 14?

LEARNING JOURNEY

Level	Task Description
	10.1 Plotting linear graphs *(GCSE Statistics)* 　　　Plot straight-line graphs. 　　　Find the y-intercept of a straight-line graph.
	10.2 The gradient *(GCSE Statistics)* 　　　Find the gradient of a straight-line graph. 　　　Plot graphs using the gradient and y-intercept.
	10.3 y = mx + c *(GCSE Statistics)* 　　　Use y = mx + c 　　　Find the equation of a straight-line graph.
	10.4 Parallel and perpendicular lines 　　　Identify parallel and perpendicular lines.
	10.5 Inverse functions 　　　Find the inverse of a linear function.
	10.6 STEM: Non-linear graphs 　　　Plot and use non-linear graphs.