Year 8	Term 6	

Stage	Description		
	Section A Constructions and Loci	**Section B** Pythagoras Theorem	**Section C** Probability sets and Venn Diagrams
Emerging	• Use compasses to construct clean arcs • Know standard mathematical constructions • Can construct and equilateral triangle.	• Can calculate the area of a square using basic knowledge of square numbers. • Know Pythagoras' theorem	• Determine the probability of an event happening from a worded example. • Give probabilities in an appropriate notation.
Developing	• Choose techniques to construct 2D shapes; e.g. rhombus • Use ruler and compasses to construct the perpendicular bisector of a line segment	• Identify the hypotenuse in a right-angled triangle. • Know when to apply Pythagoras' theorem	• understand and use relative frequency as an estimate of probability. • Make predictions using relative frequency.
Secure	• Use ruler and compasses to bisect an angle • Identify when an angle bisector is needed to solve a loci problem	• Calculate the hypotenuse of a right-angled triangle using Pythagoras' theorem • Calculate one of the shorter sides in a right-angled triangle using Pythagoras' theorem	• Can organise data into a Venn diagram. • Use a Venn diagram to calculate the probability of an event happening.
Excellence	• Understand the meaning of locus (loci). • Know how to construct the locus of points a fixed distance from a point (from a line). • Identify when to use the locus of points a fixed distance from a point (from a line).	• Solve a complex area or perimeter problem, where Pythagoras is needed to find a missing side length.	• Can construct a Venn diagram, using it to sort data. • Understands how to then use the Venn diagram to give probabilities. • Understands notation used to identify sets and probability of an event happening.