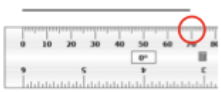
Unit 7: Constructions, Congruence and Loci

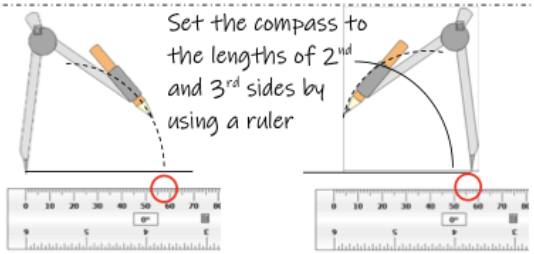
What must I be able to do?	Key vocabulary	
You may need to revise the following: • Year 7 Topic 11: Constructions and Classifying 2D Shapes **New content:** • Construct a triangle knowing all 3 sides by using a compass ➢ Mathswatch 147 (GCSE) • Construct an angle bisector ➢ Mathswatch G26c (KS3) • Construct a perpendicular bisector ➢ Mathswatch 146a (GCSE) • Construct a 90° angle from a point ➢ Mathswatch 146b (GCSE) • Draw a locus for a given rule ➢ Mathswatch 165 (GCSE)	**Bisector**	The line which splits something in half.
	Loci (plural locus)	All the possible positions or points which fit a rule.
	Equidistant	The same distance from something at all times.

SSS Triangle

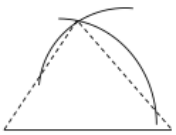
Draw the 1st side as a base



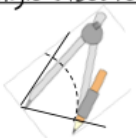
Set the compass to the lengths of 2nd and 3rd sides by using a ruler



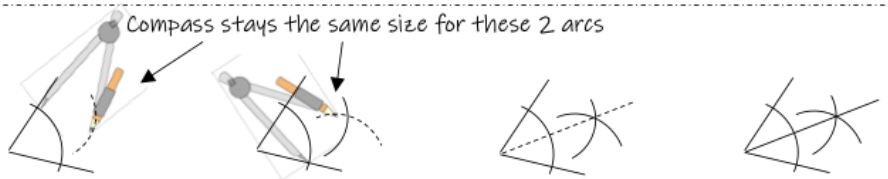
Use a ruler to connect the ends of the base to the overlap



Angle bisector



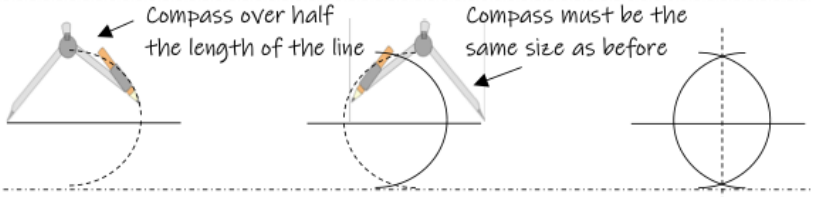
Compass stays the same size for these 2 arcs



Perpendicular bisector

Compass over half the length of the line

Compass must be the same size as before



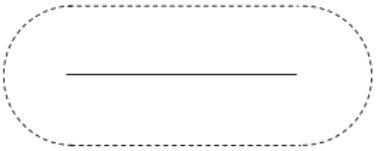
90° angle from a point

Compass stays the same size for these 2 arcs

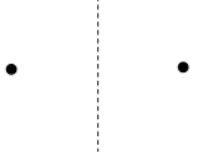
Standard Loci

Equidistant from a point

Equidistant from a line

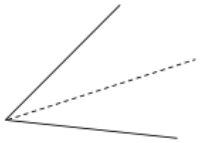


Equidistant from 2 points



The same as a perpendicular bisector

Equidistant from 2 lines



The same as an angle bisector