

Stage 9 - Visualising and Constructing

KEYWORDS

WHAT DO WE ALREADY *know?*

- Measure distances to the nearest millimetre
- Create and interpret scale diagrams
- Use compasses to draw circles
- Interpret plans and elevations

THE
BIG
PICTURE

- Know standard mathematical constructions
- Apply standard mathematical constructions
- Explore ways of representing 3D shapes

Compasses

Arc -late 14c., "part of a curved line," from Old French arc

Line segment

Perpendicular

Bisect -"to cut in two," 1640s, from Modern Latin bisectus

Bisector

Locus-1715, "locality," from Latin locus "a place, spot, position," from Old Latin stlocus, literally "where something is placed," Mathematical sense by 1750.

Loci say *low ki*

Plan and Elevation

Visualising and Constructing - Targets

Before
Topic

After
Topic

Teacher
Mark

Use ruler and compasses to construct the perpendicular bisector of a line segment

Use ruler and compasses to bisect an angle

Use a ruler and compasses to construct a perpendicular to a line from a point and at a point

Know how to construct the locus of points a fixed distance from a point and from a line

Solve simple problems involving loci

Combine techniques to solve more complex loci problems

Choose techniques to construct 2D shapes; e.g. rhombus

Construct a shape from its plans and elevations

Construct the plan and elevations of a given shape