Geometry 3 **Year 10 Foundation**

Key Knowledge/Prior Learning KS2/3 and Retrieval and Suggested Starters

- Use of compass'
- Measuring angles
- Angles in a triangle/quadrilateral/straight line/around a point.
- Indices

Retrieval and Suggested Starters

- Practicing the fluency of the above skills.
- Interleaving & problem-solving questions involving the above topics.

KS4 National Curriculum – what students will be practicing

- Use the standard ruler and compass constructions (perpendicular bisector of a line segment, constructing a perpendicular to a given line from/at a given point, bisecting a given angle)
- Use these to construct given figures and solve loci problems
- Know that the perpendicular distance from a point to a line is the shortest distance to the line
- Use Pythagoras' theorem to find lengths in right angled triangles.
- Use Pythagoras' theorem to solve problems in 2d.

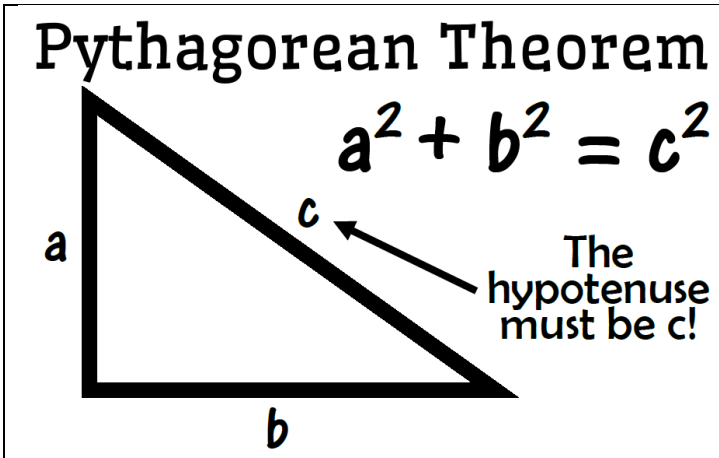
Specific Ambitious Knowledge

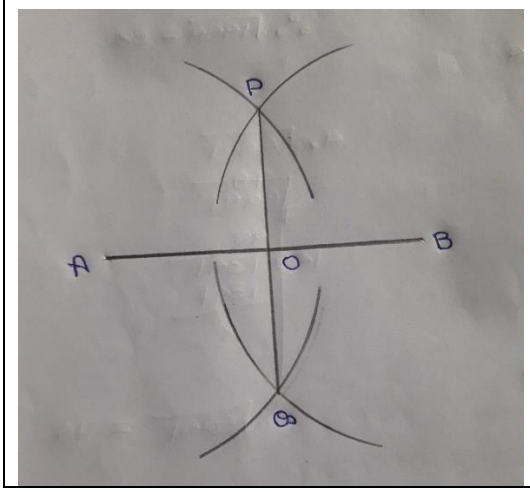
- Use Pythagoras' theorem to solve problems in 2d.
- Solve problems involving loci.
- Interleaving of topics to solve problems.

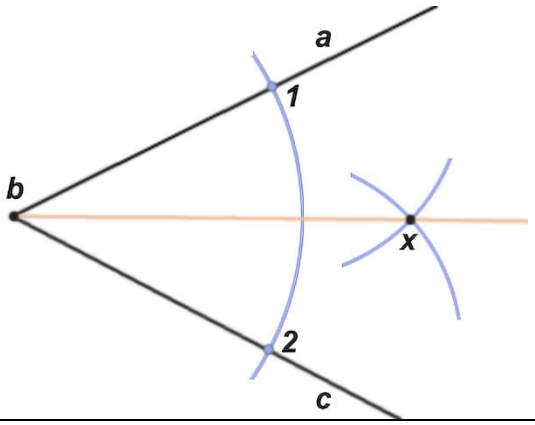
Key Vocabulary/Literacy Opportunities

- Loci
- Perpendicular
- Bisector
- Constructions
- Pythagoras

Key Formulae/Knowledge:







Cross Curricular Links
• Links to other areas of the Maths curriculum.

Student' Thinking:

- Can you prove that Pythagoras works?
- How can we use it to find other sides?

Projects/Enrichment/Investigations

Triangles in Circles	Tilted Squares
Right Angles	Subtended Angles
	Cyclic Quadrilaterals
Constructing Triangles	The Farmers' Field Boundary

Construction short problems
Garden Shed
Far Horizon
Ladder and Cube

- Shared documents/Maths/Projects/Problem-solving card sorts.