



HALF TERM 2 NOV-DEC	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
TOPIC (S)	Standard Form	Standard Form	Constructions and Loci	Constructions and Loci	Congruence and Similarity	Congruence and Similarity	Algebra recap and extension
Knowledge & Skills development	<p><u>Standard Form</u></p> <ul style="list-style-type: none"> understand and use place value (eg when working with very large or very small numbers) calculate with and interpret standard form $A \times 10^n$, where $1 \leq A < 10$ and n is an integer <p><u>Constructions and Loci</u></p> <p>use the standard ruler and compass constructions:</p> <ul style="list-style-type: none"> perpendicular bisector of a line segment constructing a perpendicular to a given line from/at a given point bisecting a given angle <p>know that the perpendicular distance from a point to a line is the shortest distance to the line</p> <p>use the standard ruler and compass constructions to construct given figures and solve loci problems</p> <p><u>Congruence and Similarity</u></p> <p>use the basic congruence criteria for triangles (SSS, SAS, ASA, RHS)</p> <p>apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results about angles and sides, including:</p> <ul style="list-style-type: none"> Pythagoras' theorem the fact that the base angles of an isosceles triangle are equal use known results to obtain simple proofs <p>apply the concepts of congruence and similarity, including the relationships between lengths, in similar figures</p> <p><u>Algebra recap and extension</u></p> <p>Understand and use the concepts and vocabulary of expressions, equations, formulae, <u>identities</u>, inequalities, terms and factors</p> <p>Simplify and manipulate algebraic expressions (<u>including those involving surds</u>) by:</p> <ul style="list-style-type: none"> collecting like terms multiplying a single term over a bracket taking out common factors <p>Deduce expressions to calculate the nth term of a linear sequence</p> <p>Solve linear equations in one unknown algebraically <u>including those with the unknown on both sides of the equation</u></p>						

Assessment / Feedback Opportunities	Topic assessments	Self-assessment sheets	Homework (written and online)	Formative teacher assessment - verbal	Retrieval practice	
Cultural Capital	Use of standard form in science Real life application of Construction and Loci Collating evidence to support proofs					
SMSC / Promoting British Values (Democracy, Liberty, Rule of Law, Tolerance & Respect)	Willingness to participate in, and respond to mathematical opportunities. Use of social skills in different contexts, including working and socialising with pupils from different religious, ethnic and socio-economic backgrounds.					
Reading opportunities	What's the point of maths? Humble Pi					
Key Vocabulary	Standard form, index, place value, integer, construction, locus, loci, perpendicular, bisect, equidistant, congruent, similar, proof, scale factor, expressions, equations, formulae, identities, inequalities, terms, factors, sequence, nth term.					
Digital Literacy	Geogebra					
Careers	Engineering, Business, Medical, Science.					