Maths- Y9

HALF TERM 6 June-July	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
TOPIC (S)	Pythagoras' Theorem and Introduction to Trigonometry	Pythagoras' Theorem and Introduction to Trigonometry	EOY Assessment	Standard Form	Standard Form	2D representations of 3D shapes	
Knowledge & Skills development	**Pythagoras' Theorem and Introduction to Trigonometry** know the formulae for: • Pythagoras' theorem, $a^2 + b^2 = c^2$ • the trigonometric ratios, $\sinθ$=opposite/hypotenuse, $\cosθ$=adjacent/hypotenuse and $\tanθ$=opposite/adjacent • apply them to find angles and lengths in right-angled triangles in two dimensional figures **Standard form** • understand and use place value (eg when working with very large or very small numbers) • calculate with and interpret standard form $A × 10n$, where $1 ≤ A < 10$ and n is an integer with and without a calculator interpret calculator displays **2D representations of 3D shapes** construct and interpret plans and elevations of 3D shapes						
Assessment / Feedback Opportunities	Topic assessments	Self-assessment	Homework (written and online)	Formative teacher assessment - verbal		Retrieval practice	
Cultural Capital	Application of standard form in science industry Application of transformations in gaming programming Application of plans and elevations in architecture and building						
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	Murderous Maths, Marvellous Maths, Launch a rocket into space
Key Vocabulary	Pythagoras, trigonometry, hypotenuse, opposite, adjacent, theta, sine, cosine, tangent, standard form, index, power, plan, elevation, view.
Digital Literacy	Desmos, Geogebra, DFM, Mathspad, MSteams
Careers	Business, Finance, Architect, Statistician, Building, Engineer, Researcher, Design, Engineering, Scientist, Gaming programmer.