Curriculum Sequencing Grid: Mathematics

Year 12	Term 1	Term 2	Term 3
Unit (Tablet in 39 week plan)	Algebraic expressions Quadratics Equations and inequalities Graphs and transformations Straight line graphs Circles Algebraic methods Binomial expansion Statistics -Applied	Trig ratios Trig identities and equations Vectors Exponentials & logarithms Mechanics - Applied	Pure Revision Statistics Revision Mechanics Revision Assessments
Key Retainable Knowledge (Required for Y11/13) ● What… How…. Why….	All topics taught in term 1 will be built upon in year 13. Regular extended learning sheets provided and assessed on prior topics throughout the year. All topics will be assessed in final exams at the end of year 13.	All topics taught in term 2 will be built upon in year 13. Regular extended learning sheets provided and assessed on prior topics throughout the year. All topics will be assessed in final exams at the end of year 13.	Assessment at the start Personalised revision to close the gaps Assessment at the end of term to show progress
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	Command words: Show, prove, evaluate, calculate, find, hence.	Command words: Show, prove, evaluate, calculate, find, hence.	Command words: Show, prove, evaluate, calculate, find, hence.
Opportunities for Reading	Textbooks for all units provided for pre-reading and post-reading. integralmaths.org (videos and worked examples) physicsandmathstutor.com (past papers)	Textbooks for all units provided for pre-reading and post-reading. integralmaths.org (videos and worked examples) physicsandmathstutor.com (past papers)	Textbooks for all units provided for pre-reading and post-reading. integralmaths.org (videos and worked examples) physicsandmathstutor.com (past papers)
Developing Cultural Capital (exposure to very best-essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)	UKMT maths challenges and team competitions Maths Inspiration – Crucible Theatre	Maths Feast - Nationwide	AMRC – higher level apprenticeships University open days
Cross Curricular Links (Authentic Connections)	Biology, Psychology, Geography etc. link with Statistics. Pure Maths providing support to Physics and Chemistry modules	Physics link with Mechanics Pure Maths providing support to Physics and Chemistry modules	Physics link with Mechanics Pure Maths providing support to Physics and Chemistry modules
Key Assessment	Assessment uses exam standard questions and mark schemes. Topic tests to check understanding Cumulative tests to check retention	Assessment uses exam standard questions and mark schemes. Topic tests to check understanding Cumulative tests to check retention	Assessment uses exam standard questions and mark schemes. Use of AS past papers for end of Y12 exam week

Curriculum Sequencing Grid: Mathematics

Year 13	Term 1	Term 2	Term 3
Unit (Tablet in 39 week plan)	Algebraic Methods Functions and Graphs Sequences and series Binomial Expansion Radians Trigonometric Functions Trigonometry and Modelling Mechanics 2 - Applied	Parametric Equations Differentiation Numerical methods Integration Vectors Statistics 2 - Applied	Pure Maths revision Statistics revision Mechanics revision
Key Retainable Knowledge (Required for Y11/13) What… How…. Why….	Regular extended learning sheets provided and assessed on prior topics from year 12 and 13 throughout the year. All topics will be assessed in final exams at the end of year 13.	Regular extended learning sheets provided and assessed on prior topics from year 12 and 13 throughout the year. All topics will be assessed in final exams at the end of year 13.	Regular extended learning sheets provided and assessed on prior topics from year 12 and 13 throughout the year. All topics will be assessed in final exams at the end of year 13.
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	Command words: Show, prove, evaluate, calculate, find, hence.	Command words: Show, prove, evaluate, calculate, find, hence.	Command words: Show, prove, evaluate, calculate, find, hence.
Opportunities for Reading	Textbooks for all units provided for pre-reading and post-reading. integralmaths.org (videos and worked examples) physicsandmathstutor.com (past papers)	Textbooks for all units provided for pre-reading and post-reading. integralmaths.org (videos and worked examples) physicsandmathstutor.com (past papers)	Textbooks for all units provided for pre-reading and post-reading. integralmaths.org (videos and worked examples) physicsandmathstutor.com (past papers)
Developing Cultural Capital (exposure to very best- essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)	UKMT maths challenges and team competitions HE+ Programme University open days	HE+ Programme University open days	
Cross Curricular Links (Authentic Connections)	Physics link with Mechanics Pure Maths providing support to Physics and Chemistry modules	Biology, Psychology, Geography etc. link with Statistics. Pure Maths providing support to Physics and Chemistry modules	
Key Assessment	Assessment uses exam standard questions and mark schemes. Topic tests to check understanding Cumulative tests to check retention	Assessment uses exam standard questions and mark schemes. Topic tests to check understanding Cumulative tests to check retention	Use of past papers for all units and mock exams.