Key Stage 5 Curriculum Map Mathematics Year 12 Further Mathematics

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit Title(s)	Complex Numbers Matrices	Series, polynomials and vectors ***Begin Decision 1: algorithms***	Proof, DRV, algorithms and graphs.	Poisson, hypothesis testing and critical path analysis	Chi-squared and linear programming	**Remaining A Level FM content**
Overview	**Chapter 1: Complex Numbers** **Chapter 2: Argand diagrams** **Chapter 6: Matrices** **Chapter 7: Linear Transformations**	**Chapter 3: Series** **Chapter 4: Roots of polynomials** **Chapter 9: Vectors** **Chapter 1: Algorithms**	**Chapter 8: Proof by induction** **Chapter 1: Algorithms** **Chapter 2: Graphs and networks** **Chapter 1: *Discrete random variables***	**Chapter 3: Algorithms on graphs** **Chapter 4: Route Inspection** **Chapter 2: Poisson distribution** **Chapter 4: Hypothesis testing**	**Chapter 6: Linear programming** **Chapter 6: Chi-squared** **Chapter 5: Volumes of revolution** ***Revision for EoY examinations***	**Chapter 1: Complex Numbers** **Chapter 3: Geometric and Negative Binomial distributions** **Chapter2: Algorithms and graph theory** **Chapter 3: Algorithms on graphs I** **Chapter 4: Route Inspection**
Iterative Links	Use the prior knowledge checkers at the beginning of each chapter to make links to previous learning. **Real world applications are highlighted at the beginning of each chapter.**	Use the prior knowledge checkers at the beginning of each chapter to make links to previous learning. **Real world applications are highlighted at the beginning of each chapter.**	Use the prior knowledge checkers at the beginning of each chapter **Real world applications are highlighted at the beginning of each chapter.**	Use the prior knowledge checkers at the beginning of each chapter to make links to previous learning. **Real world applications are highlighted at the beginning of each chapter.**	Use the prior knowledge checkers at the beginning of each chapter to make links to previous learning. **Real world applications are highlighted at the beginning of each chapter.**	Use the prior knowledge checkers at the beginning of each chapter to make links to previous learning. **Real world applications are highlighted at the beginning of each chapter.**
Knowledge & Understanding	Use the student booklets in conjunction with the Dr Frost PowerPoints. Regularly assess using past paper questions.	Use the student booklets in conjunction with the Dr Frost PowerPoints. Regularly assess using past paper questions.	Use the student booklets in conjunction with the Dr Frost PowerPoints. Regularly assess using past paper questions.	Use the student booklets in conjunction with the Dr Frost PowerPoints. Regularly assess using past paper questions.	Use the student booklets in conjunction with the Dr Frost PowerPoints. Regularly assess using past paper questions.	Use the student booklets in conjunction with the Dr Frost PowerPoints. Regularly assess using past paper questions.
Skills	Mathematical argument, language and proof. Mathematical problem solving. Mathematical modelling.	Mathematical argument, language and proof. Mathematical problem solving. Mathematical modelling.	Mathematical argument, language and proof. Mathematical problem solving. Mathematical modelling.	Mathematical argument, language and proof. Mathematical problem solving. Mathematical modelling.	Mathematical argument, language and proof. Mathematical problem solving. Mathematical modelling.	Mathematical argument, language and proof. Mathematical problem solving. Mathematical modelling.
Literacy	See key words at the end of each chapter-***summary of key points***.	See key words at the end of each chapter-***summary of key points***.	See key words at the end of each chapter-***summary of key points***.	See key words at the end of each chapter-***summary of key points***.	See key words at the end of each chapter-***summary of key points***.	See key words at the end of each chapter-***summary of key points***.
Numeracy	Embedded throughout	Embedded throughout	Embedded throughout	Embedded throughout	Embedded throughout	Embedded throughout
Assessment	End of block assessments (Topic Tests) for each overview topic. In line with school policy: Summative assessment 1-4. Examination style questions examining all previous work. EoY examination: Full AS paper from this year's examination.	End of block assessments (Topic Tests) for each overview topic. In line with school policy: Summative assessment 1-4. Examination style questions examining all previous work. EoY examination: Full AS paper from this year's examination.	End of block assessments (Topic Tests) for each overview topic. In line with school policy: Summative assessment 1-4. Examination style questions examining all previous work. EoY examination: Full AS paper from this year's examination.	End of block assessments (Topic Tests) for each overview topic. In line with school policy: Summative assessment 1-4. Examination style questions examining all previous work. EoY examination: Full AS paper from this year's examination.	End of block assessments (Topic Tests) for each overview topic. In line with school policy: Summative assessment 1-4. Examination style questions examining all previous work. EoY examination: Full AS paper from this year's examination.	End of block assessments (Topic Tests) for each overview topic. In line with school policy: Summative assessment 1-4. Examination style questions examining all previous work. EoY examination: Full AS paper from this year's examination.
Cross-curricular	Mathematics, computer science, geography, psychology, science, economics	Mathematics, computer science, geography, psychology, science, economics	Mathematics, computer science, geography, psychology, science, economics	Mathematics, computer science, geography, psychology, science, economics	Mathematics, computer science, geography, psychology, science, economics	Mathematics, computer science, geography, psychology, science, economics