The Fisher Way: Curriculum

The Fisher Way aims to educate and inspire with joy, faith and love because we are an inclusive Catholic community.

Successful and resilient learners who aspire to and achieve excellence

Confident individuals who can explore and communicate effectively

Responsible citizens who are active, loving and wise in all their endeavours

Subject	Further Mathematics
Year Group	Year 12
Intent	**Successful and resilient learners** who have developed their fluency and curiosity in mathematics and can adapt their skills to the work around them. **Confident individuals** who can reason mathematically and use their math skills to solve problems in an eloquent way. **Responsible citizens** who are learned and realise the importance of maths in the world around them even when they may not be using it in their day to day lives.
Narrative	

	By the end of Year 12, learners will have made efficient use of their skills from GCSE to develop a good knowledge on all topics for AS level Further Maths. They will have used calculus skills from A-level maths and applied them to volumes of revolution as well as used their knowledge of vectors to model real-life situations and solve problems. Learners will have laid the foundations on complex numbers, series and proof by induction that will enable them to confidently move forwards to Year 13 and their A level exam with confidence.					
Half term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge (topics studied)	Algorithms Graphs and Networks Complex Numbers and Argand diagrams, Series	Algorithms on graphs, Route Inspection Roots of polynomials, Matrices and Linear Transformations	Travelling Salesman, Linear programming Proof by Induction, Volumes of Revolution	Linear programming, Simplex algorithm Vectors and A-level calculus	Simplex algorithm and critical path A-level calculus Complex Numbers (CP2	Decision 1 Revision Core Pure 1 Revision Series (CP2), Methods in calculus (CP2)
Key skills	Solving quadratics, working with indices, coordinate geometry skills	Solving trigonometric equations, algebraic skills	Integration and algebraic manipulation	Coordinate geometry skills, logic skills	Coordinate geometry skills, logic skills	Calculus skills
Cultural capital and careers	Links to engineering and application of maths to real-life	Links to computer programming. The history of number theory - Gauss	Links to 3D printing and modelling of real-life situations FEDEx – logistics (travelling salesman)	Links to 3D world particularly aircrafts and flights How to become a pilot?	Links to 3D world particularly aircrafts and flights Business – maximising profit/managing constraints	Previous areas revisited.

Assessment	Unit Tests D1	Unit Tests CP1 D1	Unit Tests CP1 D1	Unit Tests CP1 D1	End of Year Tests As papers – CP1 and D1	