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	Core 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	Core Maths introduces learners to scenario-based tasks, to build confidence in applying maths to real-life situations. The course builds on KS3/4 maths skills and introduces some A level Statistics/Business skills. Fluency in Maths skills is valuable for learners considering Further Education courses in Science, Business, Economics, Social Sciences etc. which require a level of competence with mathematical calculations. Life skills in finance are valuable for all learners.					
Half term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge (topics studied)	Mean from frequency tables Cumulative frequency curves & use to find median/ interquartile range. % increase/decrease Scattergraphs Variance & standard deviation	Graphs of GDP Product Moment Correlation Coefficient Calculate risk Time series graphs Calculate & plot moving averages Linear programming Arithmetic & geometric sequences	Median/interquartile range Box plots Spearman's Rank Correlation Coefficient Least squares regression Skewed data 2 way tables Probability	Solve simultaneous equations Recurrence relationships	Exchange rate Calculate income tax Insurance premiums Calculate loan repayments	Golden ratio Fibonacci sequence
Key skills	Know limitations of sampling and how to sample fairly Calculations Accurate plotting of graphs and interpretation	Accurate plotting of graphs and interpretation Calculations Find probability Identify trends	Accurate plotting of graphs and interpretation Calculations Comparison of data with normal distribution	Use iterative formulae Sketch graphs of form y=mx+c Manipulate algebraic equations Calculations	Convert between different currencies Percentage increase/decrease Iteration Probability Calculations	Ratios Sequences Calculations

	Understand different measures of central tendency Write formulae in EXCEL	Plot straight line graphs/region to identify optimal solution Calculate terms & term-to-term rules for sequences	Tree diagrams Venn diagrams Equation of least squares regression line		Cumulative frequency curves	
Cultural capital and careers	Analyse social network usage Investigate life expectancy compared with GDP Use Gapminder to compare statistics, internationally and over time	Financial risk considered for product, car& event insurance Trends in marriages Property development constraints Population growth	Performance and earnings data for different sports Careers Bet 365 Market research	Dyeing fabric Find optimal solutions for the manufacture of baby clothes	Be aware of tax bands and calculate tax owed Compare taxrates in different countries Calculate premiums for term and whole life insurance policies Understand APR for loan repayments Identify assets and liabilities Mortgages Savings accounts Careers Finance Accounting Banking Insurance	Proportion in art & architecture Frequencies of notes in music Music software

Assessment	Investigation to calculate mean/SD, data generated in paper plane experiment Presentation based on independent research	Unit test		Unit test	Loans investigation	Reduced content AS level past paper