

	Year 10 Mathematics – Higher					
	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 2	Summer Term 2
BIG Question Curriculum content	How can algebraic techniques help us represent relationships, and justify conclusions with precision? - Algebraic manipulation - Quadratic techniques. - Number operations - Surd manipulation - Algebraic reasoning	How can proportional reasoning help us analyse real-life situations, and justify accurate conclusions? - Work with percentages - Use ratio and proportionality - Interpret proportion graphs. - Calculate with - Apply number and algebra skills.	How can graphical representations and probability structures help us analyse relationships? - Linear graphs - Line relationships - Probability foundations - Probability structures - Conditional probability	How can, statistical reasoning and error analysis help us interpret information, and make accurate conclusions? 2D measurement - Circle geometry 3D measurement - Averages and data - Estimation and bounds	How can geometric reasoning and statistical representation help us analyse patterns and communicate information clearly? - Quadratic and other graphs - Circle equations - Angle properties - Statistical. - Comparing data	How can geometric reasoning and transformations help us model situations, s and describe change with accuracy? - Trigonometric methods. - Simultaneous equations - Transformations - Invariant points - Geometric and algebraic reasoning
10 key words	1. Index laws 2. Quadratic 3. Surd 4. Rationalise 5. Standard form 6. HCF 7. LCM 8. Completing the square 9. Kinematics 10. Factorisation	1. Percentage change 2. Compound interest 3. Ratio 4. Proportion 5. Best buy 6. Direct proportion 7. Inverse proportion 8. Algebraic fraction 9. Recurring decimal 10. Factorising fractions	1. Gradient 2. Midpoint 3. Inequality region 4. Sample space 5. Permutation 6. Relative frequency 7. Two-way table 8. Tree diagram 9. Venn diagram 10. Conditional probability	1. Perimeter 2. Circumference 3. Sector 4. Volume 5. Surface area 6. Mean 7. Sampling 8. Interpolation 9. Error interval 10. Bounds	1. Quadratic 2. Turning point 3. Exponential 4. Tangent 5. Circle equation 6. Exterior angle 7. Parallel lines 8. Histogram 9. Cumulative frequency 10. Box plot	1. Pythagoras 2. Trigonometry 3. Sine rule 4. Cosine rule 5. Simultaneous equation 6. Iteration 7. Enlargement 8. Rotation 9. Translation 10. Invariant point
Catholic social teaching Link	Truth & Discernment algebraic proofs, g promote careful judgement and the pursuit of truth.	Stewardship using accurate percentage modelling supports responsible decision-making.	Common Good clear communication of graphical c reasoning supports fairness and shared understanding.	Truth & Discernment analysing data, encourages careful judgement and the pursuit of truth.	Human Dignity mastering complex techniques affirms intellectual capability and growth.	Common Good clear communication of reasoning supports fairness and shared understanding.
Careers Link	Physics & Data Science	Finance & Economics Science & Engineering	Data & Risk Analysis Engineering	Data & Research Analysis	Engineering & Architecture	Computer Graphics & Robotics
Ways to enrich the year 10 curriculum at home... - Investigate the proofs of where sine rule and cosine rule come from, can you follow the reasoning - Find use of percentages in the news/adverts. Are these being used responsibly, or are they been used to influence opinions?						

	Year 10 Mathematics – Foundation					
	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 2	Summer Term 2
BIG Question Curriculum content	How can algebraic structures help us model relationships, and justify conclusions? - Algebraic manipulation - Equations and inequalities - Quadratic techniques - Percentage methods - Reasoning with structure	How can proportional reasoning, help us compare quantities, and communicate results reliably? - Ratio methods - Fraction operations - Number skills - Estimation and accuracy - Proportional reasoning	How can graphical methods and geometric measurement help us represent situations? - Linear graphs - Probability structures - Venn diagrams 2D geometry 3D geometry	How can statistical analysis and geometric reasoning help us solve problems accurately? - Averages and data. - Sampling and scatter graphs - Angle properties - Parallel line reasoning - Geometric proof	How can visual data help us interpret information and communicate results accurately? - Data representation - Number properties - Standard form - Pythagoras - Trigonometry	How can algebraic solving and geometric reasoning help us represent relationships? - Simultaneous equations - Vector notation - Vector operations - Transformations - Invariant points
10 key words	1. Substitution 2. Index laws 3. Identity 4. Inequality 5. Rearrange 6. Quadratic 7. Factorise 8. Percentage change 9. Reverse percentage 10. Compound interest	1. Ratio 2. Equivalent fraction 3. Fraction of amount 4. Mixed number 5. Directed number 6. Order of operations 7. Estimate 8. Round 9. Calculator 10. Error interval	1. Gradient 2. Midpoint 3. Sample space 4. Frequency tree 5. Venn diagram 6. Set notation 7. Perimeter 8. Circumference 9. Volume 10. Surface area	1. Mean 2. Range 3. Sampling 4. Correlation 5. Interpolation 6. Exterior angle 7. Interior angle 8. Corresponding angle 9. Alternate angle 10. Proof	1. Pictogram 2. Prime 3. HCF 4. Surd 5. Standard form 6. Index 7. Rational 8. Pythagoras 9. Trigonometry 10. Exact value	1. Simultaneous equation 2. Intersection 3. Vector 4. Scalar 5. Translation 6. Reflection 7. Rotation 8. Enlargement 9. Symmetry 10. Invariant point
Catholic social teaching Link	Human Dignity mastering algebraic and numerical techniques affirms intellectual capability and growth.	Stewardship using accurate calculations and estimation supports responsible decision-making.	Common Good clear communication of graphical and geometric reasoning supports fairness and shared understanding.	Truth & Discernment analysing data and proving geometric facts encourages careful judgement and the pursuit of truth..	Common Good clear communication of data and mathematical reasoning supports fairness and shared understanding.	Human Dignity mastering algebraic and geometric techniques affirms intellectual capability and growth.
Careers Link	Finance & Business Engineering & Technology	Finance & Business Engineering & Construction	Engineering & Architecture Data & Risk Analysis	Data & Research Analysis	Data & Research Analysis	Computer Graphics & Robotics
Ways to enrich the year 10 curriculum at home... - Find use of different graphs in the news/adverts. Are these being used responsibly, or are they been used to influence opinions? - Use combinations of rotation, reflection and translation to create patterns from simple shapes - Find out where algebra originated, and why it is important to real life.						