## Key Stage 5 Mathematics Curriculum Map



|                       | AUTUMN TERM 1  | AUTUMN TERM 2   | SPRING TERM 1  | SPRING TERM 2   | SUMMER TERM 1   | SUMMER TERM 2   |  |  |
|-----------------------|--|---|--|---|---|---|--|--|
| Year 12 Pure          | Algebraic<br>Expressions<br>Quadratics<br>Equations and<br>Inequalities<br>Graphs and<br>Transformations   | Straight Line Graphs<br>Circles<br>Algebraic Methods  | Binomial Expansion<br>Trigonometric Ratios<br>Trigonometric<br>Identities                | Vectors<br>Differentiation<br>Integration               | Integration<br>Exponentials and<br>Logarithms<br>Year 2 Content<br>Differentiation<br>Algebraic Methods | Revision for PPE<br>Resits  |  |  |
| Year 12<br>Applied    | Data Collection<br>Measures of<br>Location and Spread<br>Representations of<br>Data<br>Correlation   | Modelling in<br>Mechanics<br>Constant Acceleration<br>Formulae                                      | Probability<br>Statistical<br>Distributions<br>Hypothesis Testing                        | Forces and Motion<br>Variable Acceleration              | Pure Content Covered:<br>Radians<br>Revision  | Revision for PPE<br>Resits  |  |  |
| Year 12<br>Further    | Algorithms<br>Graphs<br>Route inspection<br>Travelling Salesman  | Linear Programming<br>Simplex<br>Critical Path Analysis<br>Complex Numbers                          | Complex Numbers<br>Argand Diagrams<br>Series<br>Roots of Polynomials<br>Matrices         | Matrices<br>Matrix<br>Transformations                   | Proof by Induction<br>Vectors<br>Volumes of Revolution<br>Revision                                      | Revision for PPE<br>Transportation<br>Problems<br>Allocation Problems |  |  |
| Year 12 Core<br>Maths | Types of data<br>Collecting data<br>Introduction to<br>spreadsheets<br>Statistical Diagrams  | Numerical<br>Calculations<br>Percentages<br>Fermi Estimation<br>Representing data<br>Interest rates | Equation of a straight<br>line<br>Collecting and<br>sampling data<br>Normal Distribution | Financial problems<br>Area, perimeter,<br>circumference | Similarity<br>Pythagoras<br>Critical Analysis   | Revision for PPE<br>Personal Finance                                  |  |  |
| Feed<br>back          | Topic Tests to be completed after each major topic<br>Homework set on MyMaths, DrFrostMaths, Textbook questions<br>Full Paper Assessments in term Spring 2A<br>PPEs June |   |  |   |   |   |  |  |



## Key Stage 5 Mathematics Curriculum Map

|                    | AUTUMN TERM 1  | AUTUMN TERM 2  | SPRING TERM 1   | SPRING TERM 2  | SUMMER TERM 1                 | SUMMER TERM 2                    |
|--------------------|--|--|---|--|-------------------------------|----------------------------------|
| Year 13<br>Pure    | Sequences and<br>Series<br>Trigonometric<br>Functions<br>Trigonometry and<br>Modelling | Parametric Equations<br>Integration  | Revision for PPEs<br>Differentiation<br>Functions and graphs  | Binomial Expansion<br>Numerical Methods<br>Vectors                           | Revision                      | Revision                         |
| Year 13<br>Applied | Regression,<br>Correlation and<br>Hypothesis Testing<br>Conditional<br>Probability     | Moments<br>Forces and Friction<br>Projectiles                                      | Revision for PPEs<br>Normal Distribution  | Application of Forces<br>Further Kinematics                                  | Revision                      | Revision                         |
| Year 13 Further    | Flows in Networks<br>Dynamic<br>Programming  | Game Theory<br>Decision Analysis<br>Complex Numbers<br>Series<br>Polar Coordinates | Revision for PPEs<br>Hyperbolic Functions<br>Methods in Calculus<br>Volumes of Revolution<br>Differential Equations<br>Recurrence Relations | Revision   | Revision                      | Revision                         |
| Core<br>Maths      | Review<br>Representing data<br>Graphical<br>representations                            | Critical Analysis<br>Correlation and<br>Regression                                 | Repayments and<br>credit<br>VAT<br>Limits of Accuracy   | Probabilities and<br>estimation<br>Confidence Intervals<br>Income Tax and NI | Critical Analysis<br>Revision | Revision                         |
| X                  | PPEs September/October   |  | PPEs January  | ·  | Exams May/June                | •<br>                            |
| Feedbac            |  | Topic Te<br>Homework set   | ests to be completed af<br>t on MyMaths, DrFrostN   | ter each major topic<br>1aths, Textbook questic                              | ons                           | Church of England<br>High School |