

| Year 1 | |
|--------------------------------------------|---------------------------------------------------------|
| Teacher A | Teacher B |
| Algebra and Functions 1a | Algebra and Functions 1b |
| Manipulating polynomials | Factor and Remainder Theorem |
| Expanding multiple binomials | Algebraic Division |
| Binomial Expansion | Laws of Indices |
| Factorisation | Manipulating Surds |
| Coordinate Geometry | Rationalising the denominator |
| Straight Line Graphs | Algebra and Functions 2 |
| Parallel and Perpendicular Lines | Quadratic Functions and the Discriminant |
| Straight Line Modelling | Completing the square |
| Algebra and Function 3 | Solving Quadratics |
| Sketching Quadratics and Cubics | Solving Simultaneous Equations |
| Sketching Quartics and reciprocal graphs | Solving Quadratic Simultaneous Equations |
| Intersection of points | Solving Quadratic inequalities |
| Proportional Relationships | |
| Translations | Data Presentation |
| Stretches | Measures of Central Tendency |
| Coordinate Geometry 2 | Measures of Spread |
| Equations of Circles | Variance and Standard Deviation |
| Equations of Circles 2 | Data Cleaning |
| Angles in Semi circles | Outliers and Standard Deviation |
| Perpendicular to a Chord | Linear Coding |
| Radius and Tangents | Box and Whisker and Cumulative Frequency |
| Trigonometry | Histograms |
| Sine, Cosine and Tangent | Scatter Graphs |
| Sine and Cosine Rule | Regression lines |
| Trigonometrical Graphs | Differentiation |
| Tangent Function | Gradient of a Curve |
| Solving Trigonometrical Equations | Differentiation of x^2 and x^3 |
| Exponentials and Logs | Differentiation of a Polynomial |
| The function a^x | Stationary Points and the 2nd Derivative |
| Logarithms | Tangents and Normals |
| The equation $a^x = b$ | Probability |
| Logarithmic Graphs | Calculating Probability |
| The number e | Discrete and Continuous Data |
| Natural Logs | Binomial Distribution 2 |
| Kinematics | Integration |
| The Language of Kinematics | Indefinite Integrals |
| Displacement-Time and Velocity-Time Graphs | Area under a Curve |
| Equations of constant acceleration | Vectors |
| Vertical Motion | Definition of a vector |
| Variable Acceleration | Adding Vectors |
| Forces | Vector Geometry |
| Newton's Laws of motion | Position vectors |
| Vertical Motion | Modelling with Vectors |
| Connected Particles | Sampling and Hypothesis Testing |
| Pulleys | Populations and Samples |
| Functions and Modelling | Hypothesis testing |
| The modulus function | Significance Levels |
| Composite functions | Proof |
| Inverse functions | Proof by deduction |
| Transformations | Proof by exhaustion |
| Sketching with the modulus function | Disproof by counter example |
| Solving modulus problems | Proof by contradiction |
| | Algebra and Partial Fractions |
| | Simplifying algebraic fractions |
| | Partial fractions |
| | Repeated Factors |
| | The Binomial Theorem |
| | Expanding $(1 + bx)^n$ n rational |
| | Expansion of functions by first using partial fractions |

| Year 2 | |
|--------------------------------------------------------------|----------------------------------------------------|
| Teacher A | Teacher B |
| Regression and Correlation | Moments |
| Change of variable | Resultant Moments |
| Correlation coefficients | Equilibrium of a Uniform Rod |
| Statistical hypothesis testing for zero correlation | Centres of Mass |
| Series and Sequences | Tilting |
| Arithmetic and Geometric sequences | Trigonometry |
| Arithmetic Series | Radians |
| Geometric Series | Small angles and Trigonometry |
| Sum to Infinity of a GS | Secant, cosecant and cotangent |
| Sigma notation | Trigonometrical identities and inverses. |
| Recurrence and iterations | The Addition Formulae |
| Modelling with series | The Double angle and Half angle formulae |
| Parametric Equations | Solving Trigonometrical equations |
| Converting between parametric and Cartesian forms | $R \cos(x \pm \alpha)$ or $R \sin(x \pm \alpha)$ |
| Curve sketching and Intersections | Proving trigonometrical Identities |
| Modelling with Parametric Equations | Modelling with Trigonometry |
| Probability | Forces at any angle |
| Using set notation for probability/ Conditional probability | Resolving forces |
| Conditional Probability and Venn Diagrams | Inclined Planes |
| The Probability Formulae | Friction forces |
| Tree Diagrams | Numerical Methods |
| Questioning assumptions in probability | Location of roots |
| Differentiation | Solving by iterative methods |
| Differentiating $\sin x$ and $\cos x$ from first principles | Cobweb Diagrams |
| Differentiating exponentials | Newton-Raphson method |
| Differentiating logarithms | The Normal Distribution |
| The Chain Rule | Understanding the Normal distribution |
| The Product Rule | Finding probabilities from the Normal Distribution |
| The Quotient Rule | The Inverse Normal Function |
| Differentiation of Trig functions | The Standardized Normal Function |
| Differentiation of Parametric Functions | Finding the mean and standard deviation. |
| Implicit Differentiation | Applications of Kinematics - Projectiles |
| Rates of change problems | Horizontal Projection |
| Integration 1 | Vertical Projection |
| Integrating Standard Functions | Projection at any angle |
| Integrating Standard Functions II | Projectile Motion Formulae |
| Integrating $f(ax + b)$ | Applications of Forces |
| Using the reverse of the Chain Rule | Statics of a Particle |
| Using trigonometric identities to manipulate integrals | Modelling with Statics |
| The Normal Distribution | Friction and statics |
| The Binomial Distribution | Statics of Rigid Bodies |
| Applying Continuity Correction when Approximating Binomial - | Dynamics and Inclined Planes |
| Approximating Binomial with the Normal Distribution. | Further Kinematics |
| Integration 2 | Vectors in Kinematics |
| Integration by Substitution | Vectors and Projectiles |
| Integration by parts | Variable acceleration in 1D |
| Use of partial fractions | Differentiating Vectors |
| Area under a graph using limits of a sum | Integrating Vectors |
| Areas under Graphs - working Parametrically. | The Normal Distribution |
| The trapezium rule | The Mean Distribution |
| Differential equations | Hypothesis testing with the mean |
| Modelling with Differential Equations | Mixed Hypothesis testing |
| Vectors (3D) | |
| 3D Coordinates | |
| Vectors in 3D | |
| Solving Geometric Vector Problems | |
| Applications to Mechanics | |