

Curriculum Progression Pathways Subject: Mathematics HoD: Mrs S Moodie 2022/23		Quality of Education: The Curriculum prioritises critical knowledge and gradually builds understanding over time, interleaving concepts at every opportunity. It is underpinned by the principles of cognitive science. Vision: The Mathematics Department’s vision is to enable all students at all levels of attainment to practice to fluency, to reason and to think mathematically at every possible opportunity.			
KS3		KS4 – Foundation GCSE		KS4 – Higher GCSE	
Year 7 NP1 – Place value & the number line NP2 – Addition & Subtraction NP3 – Multiplication & Division NP4 – Powers, roots & Primes NP5 – Order of Operations NP6 – Negative Numbers A1 – Introduction to Algebraic Thinking NP7 - Fractions Year 8 NP8 - Percentages NP9 – Estimation & Use of Calculator A2 – Manipulating & Simplifying Expressions 1 GM1 – Drawing, Measuring & Constructing A3 – Manipulating & Simplifying Expressions 2 A4 – Linear Equations NP10 – Proportional Reasoning GM2 – Polygons & Angles SP1 – Discrete Data GM3 - Area NP11 - Ratio A5 - Formulae A6 – The Cartesian Grid	Year 9 SP2 – Bivariate Data & Time Series A7 – Sequences 1 A8 – Linear Inequalities NP12 – Standard Form A9 – Contextual Graphs SP3 – Introduction to Probability A10 – Advanced Linear Graphs and Equations GM4 – Congruence and Similarity GM5 – Right-Angled Triangles NP13 – Advanced Proportion and Rates of Change GM6 - Circles GM7 – Advanced Drawing, Measuring & Construction NP: Number and Proportion A: Algebra GM: Geometry and Measure SP: Statistics and Probability	Year 10 Basic Number Factors and Multiples Basic Algebra Fractions, Decimals & Rounding Angles Scale Drawing and Bearings Collecting and Representing Data Coordinates and Linear Graphs Sequences Percentages Ratio and Proportion Real Life Graphs Perimeter and Area Circles Equations Indices Standard Form Properties of Polygons Basic Probability Transformations Congruence and Similarity 2D and 3D representations Calculating with Percentages Measures Statistical Measures Constructions and Loci	Year 11 Probability Volume Quadratics & Rearranging Scatter Graphs Inequalities Pythagoras’ Theorem Simultaneous Equations Algebra and Graphs Sketching Graphs Direct and Inverse Proportion Trigonometry Quadratic Equations Quadratic Graphs Growth and Decay Vectors Further Ed. Training, Careers Useful in a wide range of A Levels, particularly Maths, Sciences, Geography, Psychology and Business Studies. More widely Mathematics Qualifications hold great sway in all forms of employment. As an indication of higher level logic, abstract thinking and astute problem solving.	Year 10 Basic Number Factors and Multiples Basic Algebra Fractions, Decimals & Rounding Collecting and Representing Data Angles, Scale Drawing and Bearings Equations of linear graphs Sequences Basic Percentages Ratio and Proportion Real Life Graphs Perimeter and Area Circles Properties of Polygons Equations Indices Surds Basic Probability Standard Form Measures Transformations Congruence and Similarity 2D and 3D Representations Calculating with Percentages Statistical Measures Constructions and Loci	Year 11 Probability Volume Quadratics and Rearranging Algebraic Proof Scatter Graphs Numerical Methods Equation of a Circle Further Statistics & Graphs Further Equations & Graphs Simultaneous Equations Functions Direct and Inverse Proportion Inequalities Pythagoras’ Theorem Trigonometry Growth and Decay Vectors Transforming Functions Sine and Cosine Rules Factor Theorem Circle Theorems Geometric Proof Area Under a Curve Gradients and Rates of Change Algebraic Fractions Binomial Expansion Matrices Product Rule for Counting Further Trigonometry