Kings Curriculum Map
Subject Name – Maths

		Autumn Term	Spring Term	Summer Term
Year 9		**All pupils study.** Place Value, Rounding, use of a calculator, Pythagoras, 4 operations with negative numbers and decimals, BIDMAS, Indices and Standard form. Simplify expressions, Substitution, Expanding and Factorising linear expressions, Sampling, organising data, representing data, Averages and Spread.	**Foundation** Finish Averages and Spread, Fractions, Decimals and Percentages, Scale drawing and Bearings, Area of 2D shape, Calculations with Fractions, Substitution, Solving Equations, Angles and Lines, Triangles and Quadrilaterals. **Borderline, Higher and Top Higher** Fractions, Decimals and Percentages, Calculating with Fractions, Scale drawing and Bearings, Area of 2D shape, Circles and Solving Equations, Congruence and Similarity, Trigonometry, Expanding and Factorising quadratics, changing the subject, Angles and Lines, Triangles and Quadrilaterals.	**Foundation** Angles in Polygons, Sequences, Straight line graphs, Congruence and Similarity, Circles, Solving equations, Measure and Accuracy and Probability. **Borderline, Higher and Top Higher** Angles in Polygons, Sequences, Straight Line graphs, Simultaneous Equations, Metric Units, Speed/Distance/Time graphs, Calculating Speed and Density, Rounding, Estimating, Upper and lower Bounds, Error intervals, Drawing and interpreting Quadratic Graphs, Real life graphs, Probability and Venn Diagrams.
Year 10		**Foundation** Proportion, Ratio, Percentages, Frequency Diagrams, Averages and Spread, Scatter Graphs and Correlation, Time series, Powers and Indices, Expanding and Factorising linear expressions, Substitution, Straight Line graphs, Quadratic graphs, Angles, Triangles and Quadrilaterals, Forming and Solving Equations. **Borderline** Proportion, Ratio, Percentages, Averages and Spread, Cumulative Frequency and Box Plots, Histograms, Scatter graphs, Time Series, Drawing Straight line graphs and solving Simultaneous	**Foundation** Revision of 2D shape, 3D shapes, Use of a Calculator, Pythagoras, Circles, Volume and Surface Area of a Cylinder, Fractions. **Borderline** Revision of 2D shapes, Volume of a Prism, Solving Linear Equations, Drawing Quadratic Graphs, Solving Quadratic Equations, Laws of Indices, Surds, Pythagoras and Trigonometry, Drawing Cubic and Reciprocal graphs, Real Life Graphs. **Higher and Top Higher** Solving linear equations and Quadratic Equations, Simultaneous Equations, Indices, Surds, Trig and	**Foundation** Basic Probability, Sample spaces and Venn Diagrams, Factors and Multiples, Revision of Percentages, Transformations. **Borderline** Exact Calculations, Upper and Lower Bounds and Error Intervals, Venn Diagrams and Tree Diagrams, Factors and Multiples, Volume and Surface area of a Cone, Sphere, Pyramid, Transformations. **Higher and Top Higher** Exact Calculations, Upper and Lower Bounds and Error Intervals, Venn and Tree Diagrams, Factors and Multiples, Trigonometry, Transformations.

	Equations graphically, Simultaneous Equations, Equation of a straight Line, Distance Time Graphs, **Higher and Top Higher** Solving Quadratic Equations, Proportion, Ratio, Percentages, Compound Interest, Averages and Spread, Cumulative Frequency and Box Plots, Histograms, Scatter graphs, Time Series, Drawing and Interpreting Linear and Quadratic graphs, Finding the equation of a straight line, Kinematic Graphs, Volume and Surface Area,	Pythagoras, Cubic and Reciprocal graphs, Real Life Graphs.	
Year 11	**Foundation and Top Foundation** Sequences, Expanding and Factorising (F only), Solving Equations, Changing the Subject, Simultaneous Equations (TF only), Speed, Density and Pressure Calculations, Drawing Quadratic Graphs and reading off values, Solving Quadratic equations (TF only), Cubic Graphs and Reciprocal Graphs, Angles, Triangles, Quadrilaterals and Polygons, Proportion, Ratio, Direct and Inverse Proportion, Fractions, Probability. **Higher and Top Higher** Inequalities, Cumulative Frequency, Box Plots and Histograms, Speed, Density and Pressure Questions, Growth and Decay, Sequences, Changing the Subject, Iteration, Drawing and Recognising different types of graphs, Direct and Inverse Proportion, Functions.	**Foundation and Top Foundation** Inequalities, Percentages, Congruence and Similarity, Pythagoras, Trigonometry, Drawing and finding the equation of straight-line graphs, speed distance time graphs, Indices, Standard Form, Transformations, Vectors, Circles, Area of 2D shape, Volume and Surface Area, Estimating, Upper and Lower Bounds, Error Intervals, **Higher** Revision of Angles, Triangles and Polygons, Circle Theorems, Vectors, Linear Graphs, Graphical Inequalities, Volume and Surface area of 3D shapes, Solving quadratic equations and sketching quadratics using key points, Simultaneous Equations, Fractions and Algebraic Fractions, Pythagoras and Trig, Converting between units, Gradient and Area under a Curve, Capture, Recapture, Construction and Loci. **Top Higher** Revision of Angles, Circle Theorems, Vectors, Linear Graphs, Quadratic Graphs, Simultaneous Equations,	**Foundation and Top Foundation** Construction and Loci, Averages and Data Handling. Revision of Key Topics. **Higher** Revision of Key topics **Top Higher** Exponential and Trig Graphs, Revision of Key Topics.

		Algebraic Fractions, Pythagoras and Trigonometry, Capture – Recapture, Similar Shapes, Construction and Loci, Equation of a circle	
Year 12	**Maths** Algebraic Expressions, Quadratic Functions, Simultaneous Equations, Binomial Expansion, Algebraic Division, Factor Theorem, Proof, Differentiation, Integration, Vectors, Straight Line Graphs. **Further Maths** *Core Pure* Complex Numbers, Argand Diagrams, Matrices. *Decision* Algorithms, Graphs and Networks, Algorithms on graphs, Route Inspection, Linear Programming.	**Maths** *Pure* Circles, Trigonometry, Inequalities, Graphs, Transformations Exponential and Logs *Applied* Measure and Spread, Representing Data, Statistical Distributions, Probability, Data Collection, Hypothesis Testing. **Further Maths** *Core Pure* Series, Linear Transformations, Roots of Polynomials, Proof by Induction. *Decision* Critical Path Analysis, Travelling Salesman Problem, The simplex algorithm.	**Maths** *Pure* Algebraic and Partial Fractions, Chain Rule, Radians, Small Angles, Trigonometric Functions. *Applied* Correlations. Modelling in Mechanics, Constant acceleration, **Further Maths** *Core Pure* Vectors, Volumes of revolutions. Complex Numbers. *Further Statistics* Discrete random Variables, Poisson Distribution, Geometric and negative Binomial distribution. Hypothesis Testing, Chi – Squared Tests.
Year 13	**Maths** *Pure* Trigonometry, Differentiation, Integration. *Applied* Forces and Motion, Variable Acceleration. Moments, Forces and Friction, Projectiles. **Further Maths** *Core Pure* Hyperbolic Functions, Polar Coordinates, Series, *Further Statistics* Hypothesis Testing, Central Limit Theorem, Probability generating functions, Quality of tests.	**Maths** *Pure* Functions and Modelling, Proof, Series and Sequences, The Binomial Theorem, Arcs and Sectors, Parametric Equations, Numerical Methods. *Applied* Application of forces, Further Kinematics, Regression correlation and hypothesis testing and conditional probability. **Further Maths** *Core Pure* Polar Coordinates (part 2), Methods in Calculus, Volumes of Revolution, Methods in Differential Equations, Modelling with Differential Equations.	**Maths** *Pure* Vectors 3D, Revision. *Applied* *The Normal Distribution.* **Further Maths** Revision