Maths Curriculum Key Stage 4

Intent:

To develop our students to become fluent in the fundamentals of Mathematics, reason mathematically and solve problems by applying mathematics.

Mathematics education at Christ the King College aims to provide students with a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of Mathematics and a sense of enjoyment and curiosity about the subject. Mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment

Curriculum Outline Key Stage 4

Year 10

- Number – HCF/LCM, Surds, Indices
- Algebra – Expansion and factorisation, Equations, Formulae, Sequences, Linear graphs, Non-linear graphs, Quadratic equations, Simultaneous equations,
- Geometry and Measures – Polygons, Pythagoras' Theorem, Trigonometry, Area, Volume, Units, Transformations, Loci, Construction, Similarity, Congruence, Trigonometric functions
- Ratio and Proportion – Growth and decay, Compound measures
- Probability – Combined events, Experimental probability, Venn diagrams
- Statistics – Statistical diagrams, Averages and range, Sampling, Cumulative frequency, Histograms

Year 11

- Number
- Algebra – Functions, Gradients, Areas under curves, Transformation of graphs, Iterative processes
- Geometry and Measures – Vectors, Geometrical proof using vectors
- Ratio and Proportion – Direct and indirect proportion
- Probability
- Statistics