

Long Term Plan – Key Stage 4 - Maths

The intent of Key Stage 4 Mathematics is to continue the application of a wide range of skills and methods within the subjects. The department will focus on personal development activities which make students aware that Maths is a creative and highly interconnected discipline which is essential to everyday life; whether in science, technology engineering, vocational employment and necessary for overall financial literacy. The national curriculum will ensure that all pupils become fluent in the fundamentals of mathematics through varied, repetitive, and progressive problem solving. By the end of this course, students will be able to recall methods across disciplines, reason mathematically by following a line of enquiry and develop arguments and a justification of proof using mathematical language. Student will develop through a variety of routine and non-routine problem solving with increasing sophistication, thus preparing them for the increasing challenges of further study and employment in the future.

Year 10					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Geometry</p> <ul style="list-style-type: none"> Angles on a straight line and in polygons Scale diagrams and bearings <p>Numbers</p> <ul style="list-style-type: none"> Numbers, positive and negatives Factors and multiples <p>Algebra</p> <ul style="list-style-type: none"> Basic algebra / expressions and formulas Coordinates / linear graphs <p>Numbers</p> <ul style="list-style-type: none"> Basic fractions 	<p>Numbers</p> <ul style="list-style-type: none"> Decimals Approximation/Rounding <p>Statistics</p> <ul style="list-style-type: none"> Collecting and representing data Scatter graphs <p>Algebra</p> <ul style="list-style-type: none"> Sequences 	<p>Numbers</p> <ul style="list-style-type: none"> Percentages <p>Geometry</p> <ul style="list-style-type: none"> Perimeter and area Circumference and area <p>Algebra</p> <ul style="list-style-type: none"> Real life graphs 	<p>Ratio and proportion</p> <ul style="list-style-type: none"> Ratio and proportion <p>Geometry</p> <ul style="list-style-type: none"> Properties of polygons <p>Algebra</p> <ul style="list-style-type: none"> Equations <p>Numbers</p> <ul style="list-style-type: none"> Standard form 	<p>Statistics</p> <ul style="list-style-type: none"> Probability <p>Geometry</p> <ul style="list-style-type: none"> Transformations Congruence and similarity/2D representation of 3D 	<p>Numbers</p> <ul style="list-style-type: none"> Calculating with percentages <p>Geometry</p> <ul style="list-style-type: none"> Measures/Volume and surface area of prism <p>Statistics</p> <ul style="list-style-type: none"> Statistical measures/Representation and interpretation <p>Geometry</p> <ul style="list-style-type: none"> Constructions and loci
Year 11					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Statistics</p> <ul style="list-style-type: none"> Probability <p>Geometry</p> <ul style="list-style-type: none"> Volume/Curved shapes and pyramids <p>Algebra</p> <ul style="list-style-type: none"> Algebra quadratics rearranging formulas and identities <p>Statistics</p> <ul style="list-style-type: none"> Scatter graphs 	<p>Algebra</p> <ul style="list-style-type: none"> Inequalities <p>Geometry</p> <ul style="list-style-type: none"> Pythagoras theorem <p>Algebra</p> <ul style="list-style-type: none"> Simultaneous equations Algebra and graphs 	<p>Algebra</p> <ul style="list-style-type: none"> Algebra and graphs Sketching graphs <p>Ratio and proportion</p> <ul style="list-style-type: none"> Direct and inverse proportion 	<p>Geometry</p> <ul style="list-style-type: none"> Trigonometry <p>Algebra</p> <ul style="list-style-type: none"> Solving quadratics equations Quadratic graphs <p>Ratio and proportions</p> <ul style="list-style-type: none"> Growth and decay <p>Geometry</p> <ul style="list-style-type: none"> Vectors 	<p>Examination Revision</p>	<p>Examination Revision</p>