

## Maths Curriculum Maps 2021 -22

### Key Stage 5 A Level Maths

Year	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
<b>12</b> <b>Exam spec/ code</b> <b>EDEXCEL</b> <b>Pure Maths : 8MA0-01 (AS)</b> <b>Statistics and Mechanics : 8MA0-02 (AS)</b>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Algebraic Expressions</li> <li>Quadratics</li> <li>Algebraic Methods</li> <li>Binomial Expansion 1</li> <li>Differentiation (Part 1)</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Modelling in mechanics</li> <li>Constant acceleration</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Measure of location and spread</li> <li>Statistical distribution</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Differentiation (Part 2)</li> <li>Integration</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Constant acceleration</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Probability</li> <li>Data collection</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Vectors 2D</li> <li>Straight line graphs</li> <li>Circles</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Force and motion</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Hypothesis Testing</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Trigonometric ratios</li> <li>Trigonometric identities and equations</li> <li>Equations and inequalities</li> <li>Graphs and transformations</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Force and motion</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Correlation</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Exponentials and Logs</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Variable acceleration</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Representation of data</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Proof</li> <li>Algebraic Methods</li> <li>Radians (Part 1)</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Forces and friction</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Normal distribution</li> </ul>
<b>13</b> <b>Exam spec/ code</b> <b>EDEXCEL</b> <b>Pure Maths 1 : 9MA0-01 (A)</b> <b>Pure Maths 2 : 9MA0-02 (A)</b>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Trigonometric functions</li> <li>Differentiation (Yr2)</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Forces and friction</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Integration (Yr2)</li> <li>Functions and graphs</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Moments</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Series and sequences</li> <li>Binomial expansion 2</li> <li>Radians</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Trigonometry and modelling 2</li> <li>Parametric equations</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Projectiles 2</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Numerical methods</li> <li>Vectors 3D</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Further kinematics</li> </ul>	<b>Pure Maths</b> <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul>

<b>Statistics and Mechanics : 9MA0-03 (A)</b>	<b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Normal distribution 1</li> </ul>	<ul style="list-style-type: none"> <li>Application of forces 1</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Normal distribution 2</li> </ul>	<ul style="list-style-type: none"> <li>Trigonometry and modelling 1</li> </ul> <b>Applied (Mechanics)</b> <ul style="list-style-type: none"> <li>Application of forces 1</li> <li>Projectiles 1</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Conditional probability 1</li> </ul>	<ul style="list-style-type: none"> <li>Variable acceleration</li> </ul> <b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Conditional probability 2</li> <li>Regression 1</li> </ul>	<b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Regression 2</li> </ul>	<b>Applied (Statistics)</b> <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul>
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## Key Stage 5 Further Maths Year 12

Year 12	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
<b>Exam spec/ code</b>  Pure Maths 1 : 9FA0-01 (A)  Pure Maths 2 : 9FA0-02 (A)	Pure Maths <ul style="list-style-type: none"> <li>Complex Numbers (1)</li> <li>Argand Diagrams</li> </ul> Further Statistics 1 <ul style="list-style-type: none"> <li>Poisson and binomial distributions (1)</li> </ul> Decision 1 <ul style="list-style-type: none"> <li>Algorithms and graph theory</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Matrices</li> </ul> Complex Numbers (2)  Further Statistics 1 <ul style="list-style-type: none"> <li>Discrete probability distributions</li> </ul> Decision 1 <ul style="list-style-type: none"> <li>Algorithms on graphs (1)</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Series</li> <li>Roots of Polynomials</li> </ul> Further Statistics 1 <ul style="list-style-type: none"> <li>Poisson and binomial distributions (2)</li> </ul> Decision 1 <ul style="list-style-type: none"> <li>Algorithms on graphs (2)</li> <li>Linear Programming</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Proof by Induction</li> <li>Vectors</li> </ul> Further Statistics 1 <ul style="list-style-type: none"> <li>Poisson and binomial distributions (2)</li> <li>Chi Squared tests</li> </ul> Decision 1 <ul style="list-style-type: none"> <li>Critical path analysis</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Vectors</li> <li>Volumes of Revolution</li> </ul> Further Statistics 1 <ul style="list-style-type: none"> <li>Chi Squared tests</li> </ul> Decision 1 <ul style="list-style-type: none"> <li>Critical path analysis</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Complex Numbers (Y2)</li> <li>Hyperbolic Functions (Y2 – part 1)</li> </ul> Further Statistics 1 <ul style="list-style-type: none"> <li>Geometric and negative distributions</li> </ul> Decision 1 <ul style="list-style-type: none"> <li>Algorithms and graph theory</li> <li>Algorithms on graphs (1)</li> </ul>

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Exam spec/ code  EDEXCEL  Pure Maths 1 : 9FA0-01 (A)  Pure Maths 2 : 9FA0-02 (A)	Pure Maths <ul style="list-style-type: none"> <li>Series</li> <li>Polar Coordinates</li> <li>Hyperbolic Functions 2</li> </ul> Applied (Statistics) <ul style="list-style-type: none"> <li>Geometric and negative binomial distributions</li> </ul> Applied (Decision) <ul style="list-style-type: none"> <li>Algorithms and graph theory</li> <li>Algorithms on graphs</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Methods in Calculus</li> </ul> Applied (Statistics) <ul style="list-style-type: none"> <li>Hypothesis testing</li> <li>Central Limit Theorem</li> <li>Chi squared tests</li> </ul> Probability generating functions	Pure Maths <ul style="list-style-type: none"> <li>Volumes of Revolution</li> </ul> Applied (Statistics) <ul style="list-style-type: none"> <li>Quality of tests</li> <li>Central Limit Theorem</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Methods in Differential equations</li> <li>Modelling with Differential equations</li> </ul> Applied (Decision) <ul style="list-style-type: none"> <li>Linear Programming</li> <li>Critical Path Analysis</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul> Applied (Statistics) <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul> Applied (Decision) <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul>	Pure Maths <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul> Applied (Statistics) <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul> Applied (Decision) <ul style="list-style-type: none"> <li>Revision for external exams</li> </ul>

## Key Stage 5 Core Maths

Year	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
12  Exam spec/ code  Edexcel Level 3 Certificate in  Mathematics in Context (7MC0)	<b>Social Networking</b> <ul style="list-style-type: none"> <li>Applying statistics to real life data</li> <li>Construct and interpret diagrams for grouped discrete and continuous data</li> </ul>	<b>Society</b> <ul style="list-style-type: none"> <li>Linear Programming 1</li> <li>Arithmetic and Geometric Sequences</li> </ul> <b>Sport</b>	<b>Clothing Industry</b> <ul style="list-style-type: none"> <li>Linear Programming 2</li> <li>Straight line graphs 1</li> <li>Analysing Clothing Industry data</li> </ul>	<b>Finance</b> <ul style="list-style-type: none"> <li>Writing formula – Tax Rates, APR,</li> <li>Iterative formulae 1 - Car Loans</li> <li>Life Insurance (geometric sequences)</li> <li>Mortgages (percentages, substituting into</li> </ul>	<b>Creative Arts</b> <ul style="list-style-type: none"> <li>Ratio</li> <li>Calculating Wavelength</li> <li>Construct and interpret diagrams</li> <li>Nth term 1</li> </ul>	<b>Health</b> <ul style="list-style-type: none"> <li>Probability Trees</li> <li>Expectation</li> <li>Iterative formulae 2 – Paracetamol</li> </ul>

	<ul style="list-style-type: none"> <li>Calculate and use variance</li> <li>Calculate and use standard deviation</li> </ul> <p><b>Society</b></p> <ul style="list-style-type: none"> <li>Product Moment Correlation Coefficient</li> <li>Evaluate Risk</li> <li>Moving Averages and Time Series</li> </ul>	<ul style="list-style-type: none"> <li>Spearman's rank correlation coefficient</li> <li>Interpolation and extrapolation and outliers</li> <li>Regression lines 1</li> <li>Least squares regression lines 1</li> <li>Probability and Venn Diagrams</li> </ul>		<p>formula and cumulative frequency graphs)</p>		
<p><b>13</b></p> <p><b>Exam spec/ code</b></p> <p><b>Edexcel Level 3 Certificate in</b></p> <p><b>Mathematics in Context (7MC0)</b></p>	<p><b>Economy</b></p> <ul style="list-style-type: none"> <li>Calculating APR</li> <li>Calculating gradient of a curve</li> <li>Histograms</li> <li>Geometric Sequences</li> </ul>	<p><b>Travel</b></p> <ul style="list-style-type: none"> <li>Calculating stopping, thinking and braking distances</li> <li>Regression Lines 2</li> <li>Speed, distance and time</li> <li>Calculating adjustments for inflation</li> </ul> <p><b>Revision</b></p> <ul style="list-style-type: none"> <li>Revision for internal exams</li> </ul>	<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>Straight line graphs 2</li> <li>Nth term 2</li> <li>Analysing Climate and Weather data</li> </ul>	<p><b>Disasters</b></p> <ul style="list-style-type: none"> <li>Least squares regression lines 2</li> <li>Using PMCC to explore disaster data</li> <li>Analysing disaster data</li> </ul> <p><b>Engineering</b></p> <ul style="list-style-type: none"> <li>Linear Programming 3</li> <li>Reciprocal relationships</li> <li>Project Management and Risk</li> </ul>	<ul style="list-style-type: none"> <li>Revision for external exams</li> </ul>	<ul style="list-style-type: none"> <li>Revision for external exams</li> </ul>

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PARK HIGH SCHOOL