

# KS5 Long Term Plan 2020-2021

**Subject:**

**Exam Board: Edexcel**



**Statement of Intent**

**Statement of Implementation**

<b>Term</b>	<b>Topics Covered</b> (Date completed by and number of lessons)	<b>Skills/AOs/interleaved content</b>	<b>Assessment</b> (date and nature of assessment)
Yr 12 Autumn 1	<b>Pure Content:</b> Graphs and Transformations Quadratics and Inequalities Co-ordinate Geometry <b>Applied Content:</b> Modelling in Mechanics Kinematics	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	<b>Transition Assessment 22<sup>nd</sup> and 23<sup>rd</sup> September</b> – to assess the work students completed between school closure and the end of term and over the summer. To help assess students suitability for the course.
Yr 12 Autumn 2	<b>Pure Content:</b> Differentiation Integration Laws of Logs <b>Applied Content:</b> Kinematics Data Collecting Data processing and Interpretation Probability	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	
Yr 12 Spring 1	<b>Pure Content:</b> Binomial Expansion Factor Theorem Exponentials and Natural Logs <b>Applied Content:</b> Force Diagrams and Vectors Probability Statistical Distributions F=ma, connected particles, pulleys	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	<b>January Assessments 12<sup>th</sup> and 13<sup>th</sup> January</b> – to assess student's knowledge of the course so far. To see whether targeted intervention is required for specific topics/students.
Yr 12 Spring 2	<b>Pure Content:</b> Proof Trigonometry Exponentials and Logs <b>Applied Content:</b> Hypothesis Testing Variable Acceleration  <b><u>END OF Y12 CONTENT</u></b>	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	
Yr 12 Summer 1	<b>Pure</b> Radians Proof by Contradiction Partial Fractions	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	<b>End of AS assessments 27<sup>th</sup> and 28<sup>th</sup> April</b> – To assess student's knowledge of complete AS course and see whether any intervention needs to be put in place before moving on to Y2 content.
Yr 12 Summer 2	<b>Pure</b> Binomial Expansion Sequences and Series	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	<b>EOY 12 Assessments</b> – to assess all content covered so far AS and A2.
Yr 13 Autumn 1	<b>Pure</b> Proof by Contradiction Functions and Graphs Trigonometric Functions Vectors <b>Applied</b> Moments Conditional Probability	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	<b>EOY 12 Assessments/Y13 mock</b> – to assess full AS knowledge and A2 content covered so far. To see if intervention is needed for any specific topic/student.

Yr 13 Autumn 2	<b>Pure</b> Trigonometry and Modelling Parametric Equations Differentiation Sequences and Series <b>Applied</b> Forces and Friction Regression, correlation and Hypothesis testing Projectiles	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	
Yr 13 Spring 1	<b>Pure</b> Differentiation Integration <b>Applied</b> Further Kinematics The Normal Distribution	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	<b>Y13 Mocks</b> – to assess student’s knowledge of all AS and A2 content covered so far. To see if intervention is needed for any specific topic/student.
Yr 13 Spring 2	<b>Pure</b> Integration Numerical Methods <b>Applied</b> Applications of Forces  <u><b>END OF A2 CONTENT</b></u>	<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	
Yr 13 Summer 1		<ul style="list-style-type: none"> <li>• <b>AO1 Use and apply standard techniques</b></li> <li>• <b>AO2 Reason, interpret and communicate mathematically</b></li> <li>• <b>AO3 Solve problems within mathematics and in other contexts</b></li> </ul>	