

**Maths at Cox Green  
Curriculum Plan**

**Key Stage 5  
Year 12**

<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>	<b>Term 4</b>	<b>Term 5</b>	<b>Term 6</b>
<b>Pure Mathematics</b>	<b>Pure Mathematics</b>	<b>Pure Mathematics</b>	<b>Statistics</b>	<b>Mechanics</b>	<b>Mock Examination</b>
(1) Algebraic expressions (2) Quadratics (3) Equations and inequalities (4) Graphs and transformations (5) Straight line graphs  <b>Assessment:</b> End of unit assessment. Regular on-going assessment of topics.	(6) Circles (7) Algebraic Methods (8) The binomial expansion (9) Trigonometric ratios (10) Trig identities and equations  <b>Assessment:</b> End of unit assessment. Regular on-going assessment of topics.	(11) Vectors (12) Differentiation (13) Integration (14) Exponentials and Logs  <b>Assessment:</b> End of unit assessment. Regular on-going assessment of topics.	(1) Data collection (2) Measures of location and spread (3) Representations of data (4) Correlation (5) Probability (6) Statistical distributions (7) Hypothesis testing  <b>Assessment:</b> End of unit assessment. Regular on-going assessment of topics.	(8) Modelling Mechanics (9) Constant Acceleration (10) Forces and motion (11) Variable Acceleration  <b>Assessment:</b> End of unit assessment. Regular on-going assessment of topics.	Topic based questions prior to the mock A/S level examinations.  <b>Assessment:</b> Topic based questions prior to the mock A/S level examinations.

*SMSC/British Values:*

***How it is taught:***

*Exploration, investigation.*

*Enjoyment of success / achievement / coping with short term failure + a longer term realisation of each student's strengths and weaknesses.*

*Encouragement of self-discipline.*

*Problem solving approach – seeking systematic order to solve a problem, breaking a task down into more manageable parts.*

*Critical thinking – skills of analysis, evaluation and reflection.*

*We encourage collaborative learning in the classroom – in the form of listening and learning from each other*

*We explore and evaluate the use of Statistics to inform or mislead us our current data obsessed society.*

*Percentage work across Key Stage 3 and 4 is clearly linked to current financial topics.*

***Through the work we do:***

*Value each contribution – insist students listen and respect each other.*

*Prepare lessons well to meet student needs – if they feel valued, they are more likely to value us.*

*Get to know each student well.*

*Create the atmosphere and the opportunity for them to ask questions.*

*Answer their questions – or students will not ask any and their education will be that much poorer.*

*Praise and encourage.*

*Build their confidence.*

*Have high expectations of tolerance, behaviour, work output...*

*We exhibit pupils work in maths classrooms - to share their good practice and celebrate achievement through creating informative displays.*

**Enrichment/Extra Curriculum:**

- *After School Sessions*

<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>	<b>Term 4</b>	<b>Term 5</b>	<b>Term 6</b>
<b>Core 3 continued.</b>	<b>Core 4.</b>	<b>C4 Past paper practice and assessment.</b>	<b>Mechanics 1.</b>	<b>Exam Preparation.</b>	
Transforming graphs of functions. Trigonometry. Further trig identities and applications. Differentiation.  Assessment: C3 Past paper practice and assessment .	Partial fractions. Coordinate geometry in the (x,y) plane. The binomial expansion. Differentiation. Vectors.	Integration.	Kinematics of a particle. Dynamics of a particle. Statics of a particle. Moments. Vectors.	Assessment: Core 3, Core 4, Mechanics 1. Past papers for practice and assessment using the 'exam solutions' website. Topic based questions prior to the A Level examinations.	

*SMSC/British Values:*

***How it is taught:***

*Exploration, investigation.*

*Enjoyment of success / achievement / coping with short term failure + a longer term realisation of each student's strengths and weaknesses.*

*Encouragement of self-discipline.*

*Problem solving approach – seeking systematic order to solve a problem, breaking a task down into more manageable parts.*

*Critical thinking – skills of analysis, evaluation and reflection.*

*We encourage collaborative learning in the classroom – in the form of listening and learning from each other*

*We explore and evaluate the use of Statistics to inform or mislead us our current data obsessed society.*

*Percentage work across Key Stage 3 and 4 is clearly linked to current financial topics.*

***Through the work we do:***

*Value each contribution – insist students listen and respect each other.*

*Prepare lessons well to meet student needs – if they feel valued, they are more likely to value us.*

*Get to know each student well.*

*Create the atmosphere and the opportunity for them to ask questions.*

*Answer their questions – or students will not ask any and their education will be that much poorer.*

*Praise and encourage.*

*Build their confidence.*

*Have high expectations of tolerance, behaviour, work output...*

*We exhibit pupils work in maths classrooms - to share their good practice and celebrate achievement through creating informative displays.*

**Enrichment/Extra Curriculum:**

- *After School Sessions.*