

	What we do	When we do it	How it helps students to develop our Alive theme
Year 12	<p>Modelling and use of relating equations to real life and how that works and links to what we know of Pure Maths</p> <p>Questioning how reliable and useful data can be in informing real life choices</p>	<p>All Year</p> <p>Term 3</p>	<p>This helps students to understand and appreciate what Maths is actually being used for in real life contexts.</p>
Year 13	<p>Maths studies Questioning best value for mortgages and Loans by looking at AER and APR.</p> <p>In Single maths questioning accuracy of numerical estimations in integration such as trapezium rule by looking at & error</p>	<p>Term 2</p> <p>Term 4</p>	<p>Be critical and evaluate estimation methods. Look for value for money options</p>

Term	Alive Theme	What we do	How it helps students to develop that Alive theme
1	We are Organised	We provide resources with clear expectations about what we want to see in terms of class work and homework. This is an ongoing process, involving parents and calls home to ensure that students are fully organised to achieve a solid foundation in Maths.	Ensure that students are fully prepared and equipped to begin their A-Level Learning, bridging the gap from GCSE to A-Level.
2	We can Communicate	Statistics: Study Hypothesis testing,	Gives students skills to analyse data, and feedback about how useful it is, and how it could be used to inform real life choices.
3	We can Review	Pure: use of GCSE knowledge as an expected pre-requisite to study Graphs, index laws, later linking to calculus.	Students review GCSE knowledge that directly feeds into the A-Level skills being taught and furthering them to see how they are used in other applications.
4	We are Resilient	Pure: Calculus	This unit of work draws upon knowledge from across many units of the scheme of work, and GCSE. It requires students to be resilient in their work as there are more opportunities for misconceptions and follow on errors.
5	We are Creative	Mechanics: Modelling	Students have to be creative in applying Maths equations to real life situation, frequently having to draw diagrams to represent situations.
6	We can Research	Statistics: explore the large data Set	Students need to research different variables that are part of the Large data set and see how they can be analysed and used.

Maths Year 13 Alive Themes

Term	Alive Theme	What we do	How it helps students to develop that Alive theme
1	We value Trust and Truth	Proof by contradiction	Develop communication skills to argue if something is true
2	We can Contribute	Maths studies Festival waste	Students estimate amount of landfill left after Glastonbury and present their answers. Leads to a better understanding of waste management
3	We can Communicate	Maths studies Critical graphs preliminary material	Develop an understanding of how graphs can mislead and be able to articulate observations
4	We are Creative	Modelling elastic collisions in further maths	Understand modelling principles in solving real world problems using mathematical principles
5	We can Research	Large Data Set	Deepen understanding of large data set by exploring UK weather patterns