

	What we do	When we do it (e.g. Term 3)	How it helps students to develop our Alive theme
Year 7			
Year 8	<p>Unit on “Investigating Properties of Shapes” this covers defining and properties of different quadrilaterals, triangles and 3D shapes</p> <p>Unit on ‘investigating angle’ that covers angles at a point, angles on a straight line and vertically opposite angles</p>	<p>Term 2</p> <p>Term 4</p>	<p>This helps students to recognise different properties of shapes such as parallel lines, equal lengths and equal lengths. Students can name shapes by questioning its properties and question whether a rectangle is a special type of parallelogram etc.</p> <p>Convince me that the angles in a triangle total 180° - This helps students to question and visual see why angles in a triangle add up to</p>
Year 9	Investigating angles in parallel lines and polygons	Term 4	This allows students to extend their understanding of angle laws learnt in Yr8 and see whether they are able to apply them in the context of parallel lines in order to discover a new set of laws.

Maths Year 7 Alive Themes

Term	Alive Theme	What we do	How it helps students to develop that Alive theme
1	Organised	Numbers and number systems	It feeds into a sense that maths can be seen as a system for analysing, categorising and imposing order.
2	Review	Checking, approximating and estimating	Develops students' ability to check and estimate their solutions to review and consolidate.
3	Justice and Respect	Proportional reasoning	Students learn to maintain proportions fairly.
4	Communicate	Calculating	Students need to clearly show their workings to perform their addition, subtraction, multiplication and division with fractions and percentages
5	Resilience	Solving equations	This is a challenging topic which requires long workings and resilience to complete problems
6	Organised	Presentation of data & Measuring data	Students need to keep their work organised in order to calculate and analyse their data correctly.

Maths Year 8 Alive Themes

Term	Alive Theme	What we do	How it helps students to develop that Alive theme
1	Communicate	Calculating	Students need to clearly show their workings to perform their addition, subtraction, multiplication and division using formal methods
2	Organised	Constructing shapes using protractor and ruler	To be organised to bring correct equipment to lesson such as ruler, protractor, pencil, eraser and pencil sharpener
3	Justice and Respect	Proportional reasoning	Students learn to maintain proportions fairly.
4	Trust and Truth	Angles in a triangle, straight line and at a point	Working with the angle facts to solve geometric problems.
5	Resilience	Solving equations	This is a challenging topic which requires long workings and resilience to complete problems
6	Creative	Presentation of data	Students need to be able to construct and choose appropriate frequency tables, bar charts, pie charts, vertical line graphs to represent data

Maths Year 9 Alive Themes

Term	Alive Theme	What we do	How it helps students to develop that Alive theme
1	Resilience	Changing subject of a formula	This is a new topic introduced in Yr 9 that requires a significant level of algebraic fluency. Students wrestle with this topic as it can be challenging to develop these skills
2	Organised	Scale drawings and bearings	Students need specific equipment for this unit including rulers and protractors. They also need to be organised in their working to ensure each step is completed accurately
3	Review	End of Yr 9 assessment	This is an opportunity for students to review content from throughout the year. This is the first time that they review such a large range of content, as they have previously only completed unit tests.
4	Creative	Visualise and interpret plans and elevations of 3D shapes	Students need to understand the link between the 2D plans and visualise how they can be used to create a 3D image.
5	Justice and Respect	Probability	Students introduced to the concept of theoretical probability and 'fairness' in a mathematical context. They also consider real life applications of this and how this can be used in games and decision making
6	Communicate	Angles in parallel lines	Often with problems involving angles in parallel lines there are multiple routes to a solution. It is important for students to not only give their answer but to communicate which rules they have applied to achieve their result.