



Overall Curriculum Aim:

To develop all students as creative mathematicians who can apply, reason, question, challenge and be successful

Scheme for Learning
Curriculum Area – ACE Maths
Overview – Year 8 ACE Maths 2021-2022

Personnel Responsibility – Mr D Albon (Curriculum Director)

Quality Assured by – Mr C Mills (VP)

Exam Board/Qualification at KS4 – Edexcel 1MA1

Assessment Cycle	Topic/ Unit Title <i>Big Question</i>	Rationale/Skill Development	Link to Assessment Objectives/Progression Scales Skills The following areas will be assessed
1	How Can We Relate Fractions, Decimals and Percentages to the Real World?	<p>Students will get a chance to demonstrate and apply what they understand of mathematics from year 7.</p> <p>We are aware from experience that there are some students who struggled to grasp these concepts the first time round, or will have forgotten when they join in year 8 due to COVID-19. It is therefore important to start with the important elements of number to build upon.</p>	<ul style="list-style-type: none"> • Use the concepts and vocabulary of prime numbers, factors, multiples, HCF, LCM and prime decomposition. • Find equivalent fractions. • Compare and order fractions; use the symbols =, ≠, <, >, ≤, ≥. • Use the four operations with fractions. • Convert between mixed and improper fractions. • Use the four operations with mixed and improper fractions. • Convert between fractions, decimals and percentages.
2	What is the Importance of Number?	<p>Students will develop an understanding of a wide range of key skills linked to percentages, ratio and geometry. Students will develop their knowledge of circumference and area of a circle as well as area of 2D and compound shapes with links to future career application. The topics covered will be essential base-knowledge for more in depth study at GCSE.</p>	<ul style="list-style-type: none"> • Recap of fractions. • Calculate percentage of an amount, percentage increase and decrease and percentages, which are decimals. • Simplify ratios. • Divide ratios into a given amount. • Use a ratio to convert between measures and currencies. • Share a quantity in a given ratio including two or three-part ratios using bar models. • Solve problems using ratio. • Calculate the circumference and area of a circle. • Calculate the area of 2D and compound shapes.
3	What Can We Do With Algebra?	<p>Students will develop an understanding of a wide range of key skills linked to algebra. Students will learn key concepts of algebra that will be the foundations for other topics within this area. The topics covered will be essential base-knowledge for more in depth study at GCSE.</p>	<ul style="list-style-type: none"> • Identify the difference between expression, identity, formula, equation. • Simplify algebraic expressions by collecting 'like' terms. • Use index notation and the index laws when multiplying and dividing algebraic terms. • Expand and simplify single brackets. • Factorise algebraic expressions. • Solve linear equations (variation of styles).
4	How Can We Represent Data?	<p>Students will develop an understanding of a wide range of key skills linked to statistics and data. Students will gain an insight into statistics and how they can be used in real-life situations. The topics covered will be essential base-knowledge for more in depth study at GCSE.</p>	<ul style="list-style-type: none"> • Collect, organise and interpret data including calculating averages. • Calculate averages from a frequency table. • Draw and interpret statistical diagrams including bar charts, pie charts, stem and leaf diagrams and scatter graphs.