

Maths

What is our Curriculum Intent?

Our Students will feel confident to apply maths in different contexts and leave their mathematics education with amazing outcomes to aid them in their future goals. In KS3 we build enthusiasm for learning mathematics by developing students' understanding of and ability to apply standard techniques alongside fluency in routine procedures. This then gives them the essential foundation to develop into a cohort of versatile mathematicians who are reflective and collaborative problem solvers with a growing passion for maths.

How does our Curriculum meet the Academy's 6 Curriculum Core Principles

Is anchored in our Christian Values

Our curriculum is delivered successfully through effective use of achievement points which celebrate students ability to demonstrate the core values in their maths lessons. Teachers model these values both in their lessons and in their interactions with each other.

Is fully inclusive and celebrates diversity

Our curriculum is anchored in the idea that everyone can be successful in maths regardless of their gender or background. We educate students about women and people of colour working in STEM to model future pathways available for all.

Values all subjects, both core and creative, academic and vocational

Our curriculum gives students the skills to access learning in other subjects from statistical analysis in geography to the essential understanding of ratio applied in chemistry.

Develops students' ability to be resilient, reflective, resourceful and responsible learners

Our curriculum focuses on the development of problem solving skills. We build students' resilience in tackling problems through stretch and challenge tasks in KS3, regular exposure to problem solving tasks at KS4 and the study of mathematical modelling at KS5.

Provides pathways for academic success

Our curriculum develops the fluency in mathematical procedures and the confidence to apply these operations in unfamiliar contexts that is required to be successful in examinations.

Prepares students beyond knowledge and skills to be successful in tomorrow's world

Our curriculum teaches students to approach problems in a systematic and logical way along with developing the numeracy required to recognise good financial decisions

What are we trying to achieve at KS3

Build enthusiasm for learning mathematics by developing students' understanding of and ability to apply standard techniques alongside fluency in routine procedures

What are we trying to achieve at KS4

Develop a cohort of versatile mathematicians who are reflective and collaborative problem solvers with a growing passion for maths

What are we trying to achieve at KS5

Further build an appreciation of the depth of connections in maths (and with other subjects) and the benefits of utilising technology without being reliant on it.

What makes our curriculum offer unique & local?

We work with local primary schools, through the MathsHubs, to streamline the transition from primary to secondary through a consistency in teaching techniques. We draw on local developments to give context to our lessons as students learn about modelling such as investigating the mechanics of cranes in the local area.

What is studied at KS3?

| Year 7 | Year 8 | Year 9 |
|-------------------------------------|-------------------------------------|---------------------------|
| Number | Number | Algebraic Expressions |
| Shape and measure | Expression and Formulae | Four Operations |
| Factors and Multiples | Shape and Measure | Percentage and Ratio |
| Expression and Formulae | Fractions, Decimals and Percentages | Area and Volume |
| Fractions, Decimals and Percentages | Graphs and Coordinates | Formulae and Equations |
| Angles and 2D shapes | Construction and Pythagoras | Linear Functions |
| Equations | Equations | Angles and Shape |
| Statistics | Powers and Roots | Ratio |
| Graphs and Coordinates | 3D shapes and Trigonometry | Statistical Diagrams |
| Transformations and Symmetry | Ratio and Proportion | Congruence and Similarity |
| Ratio and Proportion | Sequences | Circle Geometry |
| Probability | Problem solving for KS3 | Quadratics |

