

## Mathematics

The Mathematics department at The Albion Academy intends for its students to become fluent and confident mathematicians with a love of Mathematics. Our curriculum aims to provide a secure understanding of mathematical concepts at KS3 which are then interleaved and recalled throughout students' academic careers at The Albion Academy.

Our KS3 and KS4 curriculum provides students with an exposure to the five strands of Mathematics as outlined by the National Curriculum: Number; Algebra; Ratio and Proportion; Geometry and Measure; and Statistics and Probability. Students are then given opportunity to practise concepts within strands and use concepts creatively in problems which combine multiple strands.

In Mathematics our aim is to secure retention of knowledge and a depth of learning which results in students who are confident in taking their studies to the next level, whether that be further qualifications, higher education or into the workplace. We are committed to providing an inclusive curriculum in which all students are expected to be ambitious and resilient.

In the Mathematics department we secure retention of knowledge through distributed practice via our Daily Review routine. All students will spend the first component of every lesson practising core knowledge from each of the five strands of Mathematics. Students' success in this task is monitored rigorously by the class teacher to inform future planning and enable for quick intervention for gaps in knowledge. This model promotes knowledge recall and a depth of learning as opposed to an accelerated curriculum resulting in confident mathematicians who can take these skills into their next steps after The Albion Academy.

The Mathematics department have high expectations of all students. All students are taught using a forward-facing model with appropriate scaffolding so that all students experience a level of challenge in their Mathematics journey. All students at The Albion Academy are given the opportunity to experience the breadth and depth of the curriculum. Our curriculum is sequenced so that knowledge is continually recalled and revisited, ensuring students experience a knowledge-rich curriculum, which provides opportunities to practise key concepts to develop fluent and confident mathematicians.

We further support the recall and retention of knowledge through our Sparx homework platform. Students are issued with home learning weekly which focuses upon practising key skills previously delivered by their Mathematics teacher. Tasks set are bespoke to each student to ensure the appropriate level of scaffold and challenge are consistently applied. The Mathematics department offer support to students through our Sparx Superstars homework club which runs every week.

We endeavour to foster a love of Mathematics for some of our most high attaining students through our MESME Maths Circles enrichment programme. In a MESME Maths Circle, a small group of students collaborate with a mentor to learn to think like advanced mathematicians. The questions, tasks and explorations in Maths Circles develop students' mathematical reasoning and expand their mathematical curiosity, at the same time as refining their technical knowledge and skills.

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At The Albion Academy, the Mathematics curriculum has been built upon the following principles:

**Entitlement** – at The Albion Academy we believe all students have the right to leave school as numerate and confident mathematicians. All students are entitled to the opportunity to be exposed to the breadth and depth the Mathematics curriculum has to offer.

**Coherence** – at The Albion Academy we sequence our curriculum so that students are repeatedly exposed to the five strands of the curriculum. The strands of our curriculum are sequenced so as to avoid instilling misconceptions and provide teachers with the opportunity to intervene where misconceptions or gaps in knowledge are apparent. Our curriculum overviews for each topic ensure our teachers are confident in delivering the curriculum to a high standard and are prepared for misconceptions which may arise therefore ensuring teachers can quickly intervene and address.

**Mastery** – at The Albion Academy we endeavour that all students are allowed the time and space to practise key mathematical concepts to a level where they are confident and fluent.

**Adaptability** – at The Albion Academy our teachers are rigorous in their collection of class success rates to ensure all students are mastering key concepts before moving on. All our teachers adapt resources and materials to suit the needs of their learners to ensure a high success rate to create fluent and confident mathematicians with a love of Mathematics.

**Representation** – Mathematics can be described as the universal language. This allows all our pupils to access the curriculum including those where English is not their first language. A secure understanding of Mathematics allows pupils of all backgrounds to leave The Albion Academy as fluent and confident mathematicians who have been exposed to a wider context outside of their immediate experiences.

**Education with Character** – the Mathematics curriculum at The Albion Academy is ambitious and rigorous. We insist our students are resilient mathematicians who persevere in the face of academic difficulty. We provide our students with multiple opportunities to connect learning from different strands of Mathematics to ensure our students are confident in thinking creatively and relish in the challenge of the depths of our curriculum.