



# Mathematics

## Our intent

We're passionate about enabling our students to achieve their full mathematical potential, to equip them to successfully attain their future goals and succeed in an ever changing world

At the Thomas Lord Audley School, our values, ready, respectful and responsible are embedded into both the department and our schools ethos and culture. Mathematics is an interconnected subject in which students need to be able to move fluently between representations of mathematical ideas. As a knowledge engaged curriculum, we believe that knowledge underpins and enables the application of skills; both are entwined.

In mathematics we support students to develop their confidence, resilience and problem solving skills. Students undertake a spiral curriculum to ensure when they leave the Thomas Lord Audley school they have good core number skills, secure, fluid subject knowledge and a passion for mathematics. Students are able to apply these in a range of areas in context as they develop the fundamental skills to enable them to maximise their potential and achieve the desired outcomes to enable them to undertake their next steps.

Students develop good literacy skills throughout their time at The Thomas Lord Audley school and the Mathematics department aim to give students opportunities to develop oracy and subject specific language skills within the classroom.



## Our 'why'

We wish to support students to develop fluency in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

Students should be able to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language. Students should also be able to solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

As a department we define the powerful knowledge our students need and help them recall it, which translates to other areas of life and learning, through a focus on retrieval and low stakes quizzes. We believe this not only builds knowledge but also confidence, hence enabling our students to progress and utilise their maths skills in other areas of life and later employment opportunities.

## Our 'how'

Quality first teaching is our priority and focuses on embedding challenge, metacognition, and memory techniques into our departmental curriculum.

In Mathematics we implement our curriculum through using a variety of teaching approaches and tasks such as treasure hunts, relay tasks, competitive game based activities and problem solving as well as more traditional skills practice and skill checkers.

Key skills and knowledge are constantly revisited and key terminology is regularly embedded within lessons and in the written work that our students produce. Students are challenged to build on fundamental concepts by structured extension activities.

Use of regular diagnostic quizzes, and assessment for learning particularly using mini whiteboards is a common feature of Maths lessons.

Mathematics concepts are approached in small steps to ensure broad and deep understanding of concepts.