



## Curriculum Intent: Mathematics

Within the mathematics faculty, our overarching mission is to build **independent, confident, and resilient** learners, who can reason mathematically to make sense of the world around them.

Our approach is centred around explicit instruction, following the 'I do/We do/You do' approach (Rosenshine, 2010). At the beginning of each lesson, a 'Do Now' is displayed for students to complete. The 'Do Now' consists of a series of questions on prior learning to aid students with retrieving information to combat the curve of forgetting over time (Ebbinghaus, 1885). Within the 'I do' phase, we use faded worked examples to build students' confidence through multiple exposures and explanations. In the 'We do' phase, teachers check for understanding using a variety of methods, including a range of questioning techniques such as 'Cold Call', 'No Opt Out' and/or the use of mini-whiteboards. Following this assessment for learning, the 'You do' phase consists of students completing a period of independent work to consolidate their learning and understanding.

Building on this, we believe that all students studying mathematics have the right to:

- Make mistakes
- Estimate, to guess, and to conjecture
- Enjoy mathematics

Through our approach, we aim for students to be able to transfer mathematical skills learnt in lessons to other disciplines around the school by identifying patterns, thinking creatively, and communicating their reasoning succinctly.

Finally, we intend for students to be successful in mathematics. To do this, we aim for all students to:

- Make secure, logical connections based on their knowledge and understanding of mathematics through completing a carefully selected variety of tasks that increase in demand over time
- Retrieve and apply their knowledge quickly and accurately, each time making their work more sophisticated
- Have the confidence to explain and reason their method, written or spoken, using the correct mathematical language
- Learn from their mistakes whilst correcting their work in red pen

*Time. Courage. Choice.*

**References**

Ebbinghaus, H. (1885/1962). *Memory: A contribution to experimental psychology*. New York: Dover.

Rosenshine, B. (2010). Principles of instruction; Educational practices series. Vol (21), 2010. The International Academy of Education.