

## Maths curriculum at Brownhills Ormiston Academy

### The department's vision

- As the maths department we embed the trusts core curriculum purpose and values
- As the maths department we aim to provide exciting and engaging lessons for our learners, challenging them at every step to become independent mathematicians.
- The Maths curriculum focuses on mastery of skills and applications across all strands that are taught, interleaving skills across lessons, units and key stages through the careful sequencing of lessons.
- We have high expectations, encouraging students to aspire to be the best they can, offering them opportunities to enrich their mathematics experience both inside and outside the classroom.
- We will support our students to develop transferable skills for employment and later life such as problem solving and data analysis.
- The students will think, write, and speak like a mathematician through the explicit teaching of subject specific vocabulary.
- We will take opportunities to develop student's cultural capital, British values and careers. For example, during Year 9 students study financial maths, and across all year groups students have opportunity to analyse data with increasing sophistication until the end of Year 11.

### Sequencing of lessons

Across both key stage 3, and key stage 4, the six strands of mathematics; number, algebra, ratio & proportion, statistics, probability and geometry & measure are taught. The hierarchical nature of mathematics means that students build their mathematical knowledge over their time at Brownhills. Our units of work act as building blocks to support the development of their knowledge.

In Year 7 students are introduced to the fundamentals that underpin the secondary mathematics curriculum including, but not limited to, algebraic thinking, and the principles of proportion.

In year 8 and 9 students continue to develop their skills across all six strands. We take every opportunity to make connections between the strands and continue to build upon their existing knowledge.

In key stage 4 all students learn the core content to be successful at Mathematics, some students will study additional, extension content, this allows all students to develop their existing knowledge base and study mathematics across all six strands. Units continue to be sequenced to allow students to develop their prior learning and make links between topics that are vital for mathematical success.

### Assessment

Students will receive regular formative assessment. Lessons begin by building on prior learning, for example retrieving prior knowledge or reflecting on exit tickets.

Self-assessment opportunities are provided in each lesson and embedded into the scheme of learning. Regular assessment opportunities are planned in to lesson including the use of mini whiteboards and targeted questioning. This allows the lesson to be personalised to the students in the classroom meaning students are able to reach their full potential.

Summative assessments are planned over the course of the year to assess key knowledge from the student's current key stage. During the GCSE course these take the form of pre public examinations.