

Mathematics Curriculum Guide Year 10

Mathematics is not just numbers and arithmetic. Although we need to become fluent in arithmetic to live our daily lives, there is so much more to Maths. It is the study of structure and pattern. We use it to explore, understand and simplify the world around us. Mathematics is the study of connecting the unconnected.

The Mathematics Curriculum at Ernest Bevin College teaches mathematics through the 5 central strands that will be assessed in the new specification GCSE (2017 onwards), each with a different weighting:

- Number – 22-28% in Foundation, 12-18% in Higher
- Algebra – 17-23% in Foundation, 27-33% in Higher
- Ratio, proportion & rates of change – 22-28% in Foundation, 17-23% in Higher
- Geometry and measures – 12-18% in Foundation, 17-23% in Higher
- Statistics & Probability – 12-18% in both Foundation and Higher

***Students in Band A will be taking GCSE Statistics as an additional Maths qualification.**

What will my son learn?

Autumn term

- Your son will start the year looking at basic number, fractions, ratios and proportion. He will also develop the understanding of Statistical diagrams and averages, number sequences and angles. The more able boys will look at Transformations, Constructions and loci.

Spring Term

- After the Winter break your son will study algebraic manipulation, length, area and volume, linear graphs and right-angled triangles. Depending on his set he will also study properties of Similarity and look at algebra further. Complete his *GCSE Statistics coursework and start preparation for his *GCSE Statistics exams.

Summer Term

- In the Summer your son will look at exploring and applying probability, powers and standard form, equations and inequalities. He will also look into counting, accuracy, powers and surds. There will also be some time dedicated to developing his problem solving ability and recapping areas of weakness based on the work he will have done over the year.

How will my son be assessed?

- At the beginning of the year he will have a baseline Mock test done in order to inform us of any areas of weakness that may exist from end of KS3 or topics he may have forgotten over Summer break.
- He will have a set of key skills assessed as part of online/mock testing. These skills have been identified as crucial to the foundations of his mathematical understanding and he must have mastered all of them by the end of the year.
- He will have end of unit tests at the end of each topic of learning. These are to inform both your son and his teacher about his individual understanding and grasp of the concepts he will have been learning.
- At the end of each half term he will have an assessment that looks at a variety of skills that he should have both from that particular half term but also more generally. This information will be inputted into an online database that will, over the course of your son's education, build up a detailed picture of what he is and is not able to do.

How can I support my son with Mathematics?

- Ensure that he is doing his homework regularly.
- Encourage him to seek help either from yourself, his teacher or online resources to address areas of weakness.
- Look at what skills he is lacking on Doodle and work with him on those skills using online Virtual learning platforms Mathswatch, Gcse Pod, Fronter and PIXL6.
- Make sure that he is properly equipped for every lesson.

