



Denbigh School— Mathematics: Frequently Asked Questions

What will Year 12 students learn and how many lessons will they have each week?

In Maths students will learn about a variety of topics in Pure Maths (Algebra, Functions, Calculus, Trigonometry, Vectors), Mechanics (Forces, Kinematics, Projectiles) and Statistics (Data Handling and Analysis, Probability).

In Further Maths students will deepen their learning in Pure Maths, Mechanics and Statistics and also extend this to Modelling with Algorithms.

Students will have four lessons a week for Maths and another four lessons if they also take Further Maths.

What will Year 12 students need to do to get the most out of their lessons?

Students will need to be proactive in their learning and be willing to seek help when needed. They will need to be dedicated to putting in sufficient time to master the tricky concepts they will meet. Maths A level is a content heavy course and as such it is fast paced, which makes it a big step up from GCSE. The most important area students will need to be competent in before starting the course is Algebra, as this will be used every lesson.

How much homework will Year 12 students have in this subject?

Students will be expected to spend around four hours a week on maths outside of lessons. Some of this will be finishing exercises from the lessons or consolidating their knowledge. At the end of every topic they will have an assessed homework to gauge their understanding.

Which careers can this subject lead to?

Maths A level is highly regarded by both Universities and employers and is a prerequisite for many courses. It could lead directly to careers in Finance, Economics and Business and will also be used extensively in Science, Computer Science, Engineering, Psychology and Social Sciences. The logical thinking required to be a good mathematician means it is also highly regarded within careers such as Law.

Which other subjects complement this subject?

All of the Sciences complement Maths well, especially Physics which has a strong crossover with the Mechanics content of the course.

Economics, Computer Science, Business studies, Psychology and Geography will also have mathematical elements.

If you choose to take one of these subjects but not A level maths, you should consider the Core Maths course.

What is Core Maths?

Core Maths is a Level 3 course that covers the practical applications of maths. It is taken alongside A levels and carries equivalent UCAS points to an AS qualification. It is highly regarded by universities and is ideal for those who are taking any A levels with some mathematical content but who do not want to take Maths A level.

We follow the AQA Level 3 Mathematical Studies (with Statistical Techniques) course and you can find more information here: <https://www.aqa.org.uk/subjects/mathematics/aqa-certificate/mathematical-studies-1350>

Which exam board and textbooks do you use for Maths?

Ofqual have proscribed the content for all Maths A level specifications so there is little variation across the exam boards.

We use the OCR (A) specification and the textbooks published by Cambridge.

You can find out more here: <https://www.ocr.org.uk/qualifications/as-and-a-level/mathematics-a-h230-h240-from-2017/>

Which exam board and textbooks do you use for Further Maths and which units do you take?

There is a lot more flexibility in the content for Further Maths A level across the exam boards, with options of which units can be taken. We follow the OCR (B) – MEI specification and, alongside the compulsory Pure maths unit, we study the following: Mechanics Minor, Statistics Minor, Modelling with Algorithms. We use the textbooks published by Hodder.

You can find out more here: <https://www.ocr.org.uk/qualifications/as-and-a-level/further-mathematics-b-mei-h635-h645-from-2017/>