



Why study Further Mathematics at Formby High School?

Further Mathematics A Level is ideal for students who want to go on and study Mathematics at university. In addition, an increasing range of other university courses also value Further Mathematics.

This course is not just for exceptionally gifted mathematicians but also anyone who enjoys Mathematics and thinks they might wish to do a degree at a good university in Physics, Engineering, Computer Studies, Sciences or Economics. It is also useful if you wish to move into the business and financial world as a career.

What does the course involve?

The A Level Further Mathematics course includes:

Further Pure Mathematics 1:

Proof, complex numbers, matrices, further algebra and functions, further calculus and further vectors

Further Pure Mathematics 2:

Complex numbers, further algebra and functions, further calculus, polar

coordinates, hyperbolic functions & differential equations

Pick two from the following options:

Further Pure: groups, further calculus, further matrix algebra, further complex numbers, number theory, and further sequences and series

Further Statistics: Linear regression, statistical distributions, correlation, hypothesis testing and chi squared tests, probability distributions, combination of random variables, estimation, confidence intervals and normal distribution and probability

Further Mechanics: momentum and impulse, collisions, centre of mass, work and energy, elastic springs and strings, kinematics, dynamics, circle motion, statics and collisions

Decision Mathematics 2: Algorithms and graph theory, critical path analysis and linear programming, transportation problems, allocation problems, flows in networks, dynamic programming, game theory, recurrence relations and decision analysis

The course is assessed at the end of Year 13 by four examinations, each lasting one hour and 30 minutes. Two elements of the course are optional with a variety of areas of Mathematics to choose from.

What can the qualification lead to?

Further Mathematics is important for students wishing to pursue a degree in STEM subjects of Science, Technology, Engineering and, of course, Mathematics.

What are the entry requirements?

Grade 7 in GCSE Mathematics and must be studied alongside A Level Mathematics.

Which other subjects complement Further Mathematics?

- Biology
- Chemistry
- Computer Science
- Engineering
- Mathematics
- Music Technology
- Physics

Student Viewpoint



"When A Level Maths just isn't enough, why not take it further?"

Mathematics is applicable everywhere, be it in the sciences, computer programming, engineering. Not only does it apply in so many places but the content is exciting and fascinating, such as imaginary numbers!

The teachers are friendly and intellectual and the atmosphere is always pleasant, making the subject even more enjoyable."

Courses will require a minimum number of five students in order to run.