Mathematics
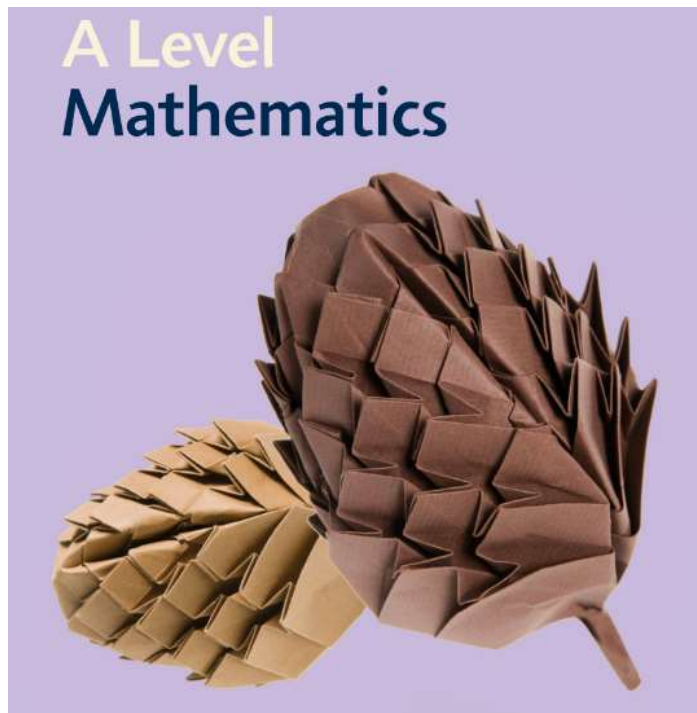
Exam board : Pearson/Edexcel

Specification no : 9MA0

Link to the Specification: A Level Specification 9MA0.pdf

Content:

Topic	Assessment	A Level %
Pure Mathematics 1	2 hours	33%
Pure Mathematics 2	2 Hours	33%
Statistics and Mechanics	2 Hours	33%

Course Delivery:

A level Mathematics is taught mainly by exposition by the teacher and solving problems in class, although students will be expected to contribute to class discussions of new topics. A significant part of the course will be in keeping up with the homework tasks, normally set after each lesson, consisting of exercises from the textbook. Much of the course involves problem-solving, and students will need to demonstrate perseverance to succeed.

Course Content:

Pure Mathematics: This consists of Algebra, Trigonometry, Coordinate Geometry, and Calculus. Some of the topics are an extension of the GCSE course, whilst much of it is new.

Applied Mathematics: This consists of 2 separate fields of mathematical study: Statistics and Mechanics. Statistics is concerned with the analysis of data, as well as the study of elementary Probability Theory. Mechanics is concerned with the study of forces and focuses on Dynamics (moving objects) and Statics (stationary objects).

Entry requirements:

Grade 7 in Maths is preferred in order to study Maths at A level, but those who achieve a grade 6 will be offered the chance to sit our higher level GCSE skills test on our enrolment day just prior to the start of term in order to show that they have the skills needed to access the A level course.

Resources:

All students will be assigned a login to the Pearson Edexcel Active Learn website that gives them online access to the course textbooks and revision workbooks.

There is also a wealth of material available on the school's Moodle website such as course notes, past papers and additional revision materials.

Skills & personal qualities required / developed by course:

The most successful students are those that have an aptitude for maths but importantly those who also enjoy problem solving and are well organised. Students will need to demonstrate considerable perseverance as this is a challenging course. However, there is a lot of help available from the teaching staff, so please don't be afraid to use us!

By studying A-level Maths, you'll gain an immense amount of analytical and problem-solving skills. These are all transferable and can be applied to many different areas of your life. A level Maths will also give you research skills that will allow you to find solutions to problems and investigate theories.

Recommended reading / websites:

www.physicsandmathstutor.com

https://www.pearsonactivelearn.com/app/home

https://nrich.maths.org/

For more general introductions to mathematical thinking, try Jeremy Wyndham - Why do buses come in threes? Jeremy Wyndham - How long is a piece of string? And Simon Singh - Fermat's Last Theorem.

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