

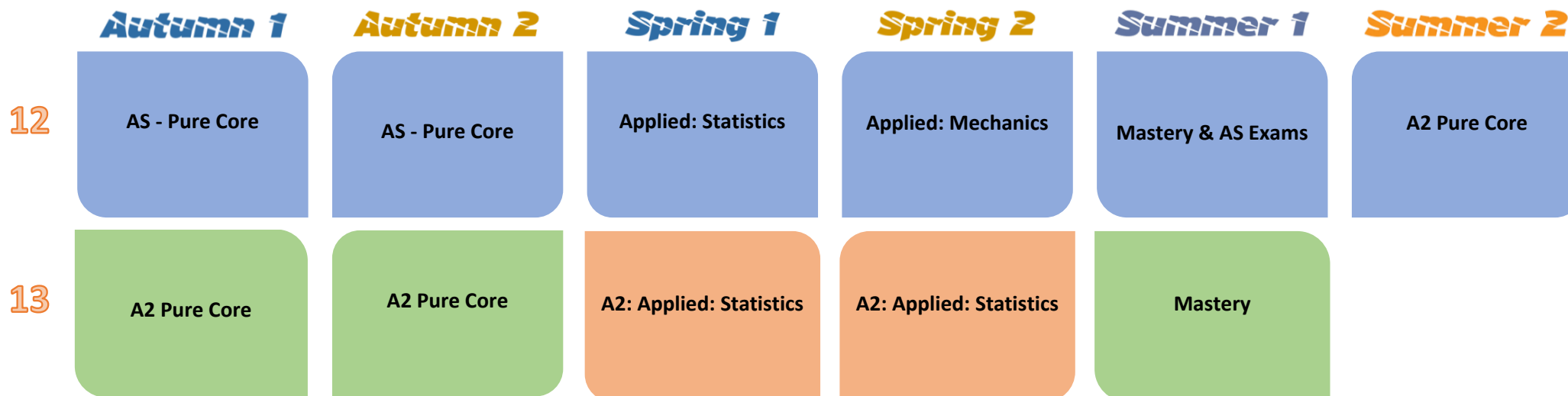
A Level Maths Curriculum

The curriculum for mathematics aims to ensure all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Building on key stage 4

Building on GCSE Maths: Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. Pupils will enhance their range of skills acquired at GCSE through the A-level curriculum. It will emphasise how mathematical ideas are interconnected and how mathematics can be applied to model situations mathematically using algebra and other representations, to help make sense of data, to understand the physical world and to solve problems in a variety of contexts, including social sciences, and business. It prepares students for further study and employment in a wide range of disciplines involving the use of mathematics.



Assessment objectives (AOs)

AO1 Use and apply standard techniques Students should be able to: select and correctly carry out routine procedures; and accurately recall facts, terminology and definitions.

AO2 Reason, interpret and communicate mathematically Students should be able to:

- construct rigorous mathematical arguments (including proofs)
- make deductions and inferences
- assess the validity of mathematical arguments
- explain their reasoning; and
- use mathematical language and notation correctly.

Where questions/tasks targeting this Assessment Objective will also credit candidates for the ability to 'use and apply standard techniques' (AO1) and/or to 'solve problems within mathematics and in other contexts' (AO3) an appropriate proportion of the marks for the question/task must be attributed to the corresponding Assessment Objective(s).

AO3: Solve problems within mathematics and in other contexts Students should be able to:

- translate problems in mathematical and non-mathematical contexts into mathematical processes
- interpret solutions to problems in their original context, and, where appropriate, evaluate their accuracy and limitations
- translate situations in context into mathematical models
- use mathematical models; and
- evaluate the outcomes of modelling in context, recognise the limitations of models and, where appropriate, explain how to refine them.

Where questions/tasks targeting this Assessment Objective will also credit candidates for the ability to 'use and apply standard techniques' (AO1) and/or to 'reason, interpret and communicate mathematically' (AO2) an appropriate proportion of the marks for the question/task must be attributed to the corresponding Assessment Objective(s).

Exams	AS maths Year1	A2 Maths Year 2
Paper1	Pure Core (25%) & Mechanics (25%)00 Marks	Pure Core (33.3%) 100 Marks
Paper2	Pure Core (25%) & Statistics (25%)00 Marks	Pure Core (16.7%) & Mechanics (16.7%) 100 Marks
Paper 3	N/A	Pure Core (16.7%) & Mechanics (16.7%) 100 Marks