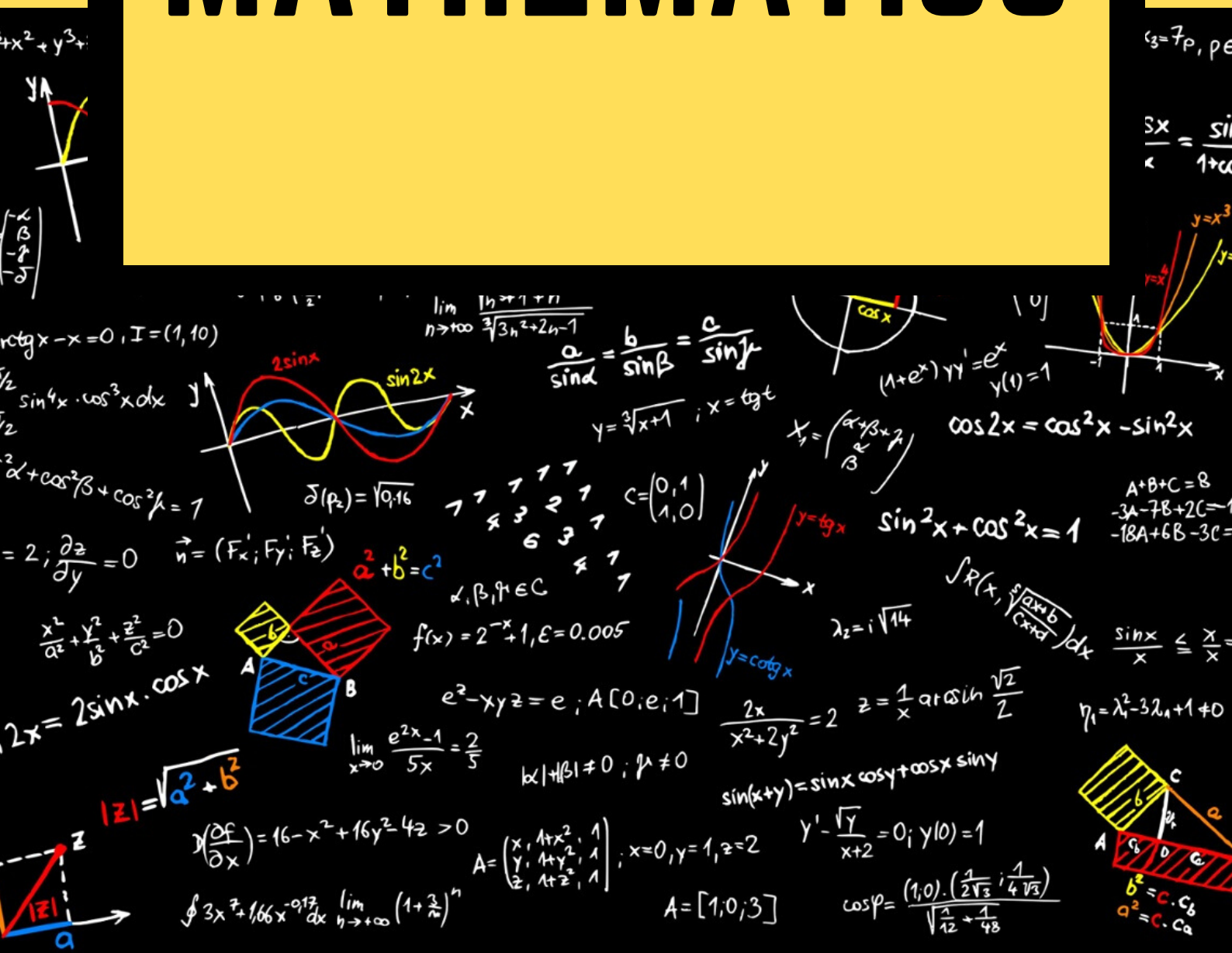
The Sixth Form
Teign School
Coombeshead Academy

MATHEMATICS



MATHEMATICS

What will I study?

This course is designed to give a broad mathematical education at A Level by building on the skills and knowledge gained at GCSE through individual modules which include 'pure' and 'applied' mathematics

The course includes GCSE content stretched to more difficult situations, and completely new topics. For example, the 'Pure' aspect of the course develops students' algebraic skills in quadratic functions, sequences and series and graph sketching, as well as introducing new techniques such as calculus.

Students will also study statistics and mechanics giving them a broad base for many subjects at university or in employment. The course aims to make rounded mathematicians who are able to solve real life problems with their broad skill set.

The A Level Mathematics course provides students with enjoyment, interest and intellectual stimulation and enable them to develop an appreciation of how mathematical ideas help in interpreting the world in which they live, extend their mathematical knowledge and skills and help them acquire strategies for the solution of extended problems.

In Years 12 and 13 there is an opportunity to study Further Mathematics for those students who wish to become more involved in Mathematics, Engineering, Physics or Finance.

Please note Further Mathematics at A Level will only be offered if enough students select this course and are deemed mathematically capable.

Assessment

Assessment - three written examination papers at the end of the two-year course.

Career Opportunities

Mathematics A Level is essential for degree courses in Mathematics, Engineering or Physics. Most courses in Computer Science and Operational Research require Mathematics.

Physics, Engineering and Economics can all involve complex Mathematics at university, so if student is strong at Mathematics and firmly intend to specialise in these subjects, then Mathematics and Physics, or Mathematics and Economics are combinations to consider. Mathematics A Level is useful for Geography or Social Sciences, and some universities require it for Accountancy, Business Studies or Economics.

With numbers, statistics and computers so much part of modern life, it is not surprising that an A Level in Mathematics is one of the most generally useful qualifications.

The main careers where Mathematics plays a significant part are Accountancy, the Actuarial profession, Air Traffic Control, Architecture, Armed Forces, Banking, Computing and Data Processing, Economics, Engineering of all types, Meteorology, Operational Research Management, Planning, Optics, Sciences of all types, Statistics, Surveying, Teaching, Research and Medicine.

Entry Requirements

Five Level 4 GCSEs are required for entry into 6th Form.

Level 5 pass is required in your chosen, or related, subject.

Some subjects require Level 6; decisions will be based on individual students.

Specialist facilities

Dedicated fully equipped classrooms

Hours of study (fortnightly)

9 hours of lesson time
6 hours independent learning

Resources needed

Access to ICT resources and graphing packages such as Desmos, Autograph and Geogebra.

Calculator £20 or Graphical calculator £52-85 dependent on model.

£10 refundable book deposit