A Level Mathematics

WHY ?

Maths is perfect. The Advanced Level course will show how the separate topics from GCSE come together logically to form a fascinating and elegant subject. Mathematics at AS and A2 is also a highly respected qualification, which will complement many combinations of Sixth Form subjects. A very wide range of careers and higher education courses will require A level maths.

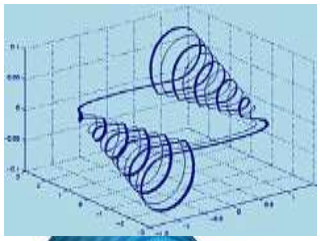
At Swanshurst Sixth Form we offer the EDEXCEL Modular Mathematics Course either as Advanced Subsidiary Mathematics or Advanced GCE Mathematics.

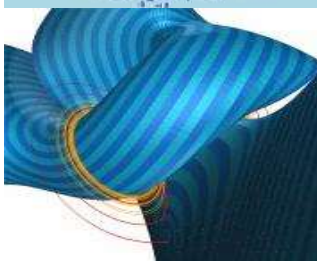
Year 12: AS Mathematics : (3 Modules)

Core Pure : (C1)	Algebra and functions; co-ordinate geometry in the (x,y) plane; sequences and series; differentiation; integration.
Core Pure : (C2)	Algebra and functions; co-ordinate geometry in the (x,y) plane; sequences and series; trigonometry; exponentials and logarithms; differentiation; integration.
Decision : (D1)	Mathematical application models in networking, computer science and business; Algorithms; networks and graphs; Route inspection; Critical path analysis; Linear programming; Matchings.

Year 13: A2 Mathematics (6 Modules) C1, C2, D1 +

Core Pure : (C3)	Algebra and functions; trigonometry; exponential and logarithms; differentiation; numerical methods.
Core Pure : (C4)	Algebra and functions; coordinate geometry in the (x,y) plane; sequences and series; differentiation, integration; vectors.
Statistics : (S1)	Mathematical models in probability and statistics; representation and summary data; probability; correlation and regression; discrete random variables; the Normal distribution.



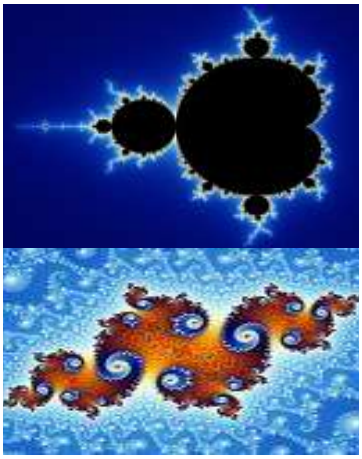


We offer this course because:

- *It develops an understanding of mathematics in a way that promotes confidence and fosters enjoyment.*
- *It develops abilities to reason logically and recognise incorrect reasoning, to generalise and construct mathematical proof.*
- *It uses mathematics as an effective means of communication.*
- *It develops the skills needed to use technology such as calculators and computers effectively.*
- *It develops an awareness of the relevance of mathematics to other fields of study, to the world of work and to society in general.*

At Swanshurst School Sixth Form Centre you will find :

- *A versatile, exciting and enjoyable A level course.*
- *Experienced, well qualified teachers.*
- *A supportive learning environment.*
- *Small, friendly, focused teaching groups.*
- *Good up to date resources.*
- *On line programmes of work to complement independent study.*
- *Easy access to technology.*
- *Opportunities to experience Mathematics beyond the classroom.*



"Pure mathematics is, in its way, the poetry of logical ideas."
Albert Einstein

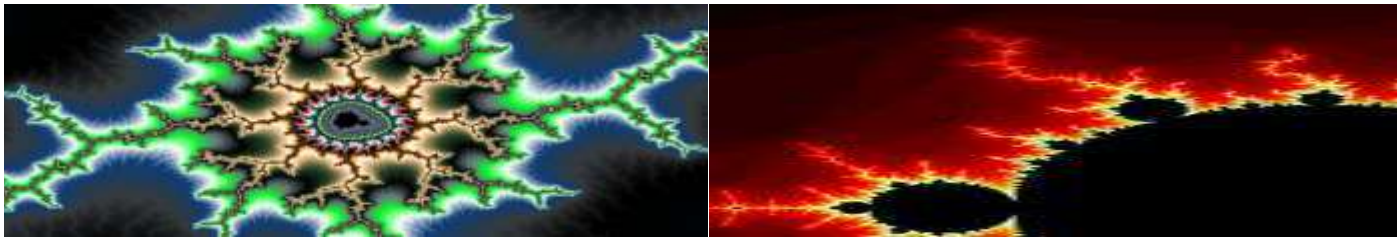
Course requirements

In order for students to gain most fulfilment and reward from this course entry requirements are a Grade B and above in GCSE Mathematics (in both Methods of Mathematics and Application of Mathematics examinations where applicable). If you have completed a modular GCSE course you must have achieved a minimum of a grade B in your final unit examination. Progression onto A Level Mathematics will also require at least 5 GCSEs, or equivalent, at grade C or above. Student progress is monitored by regular assessed homework and practise examinations, which means that each pupil is always aware of exactly how well they are mastering mathematics.

External Assessment is by three equally weighted modules at the end of each of the AS and A level years. Thus each module is worth 16.7% [3sf].

If you have any additional queries do not hesitate to ask.

Mathematics Department



The above pictures are from the 'Mandelbrot set' are within mathematics which investigates Chaotic behaviour such as weather systems and global warming. A level mathematics will introduce you to some of the building blocks which surround many interesting topics like this.

Exam Board: www.edexcel.org.uk