

MATHEMATICS

Year 13

Topics studied:

Core 3:

Successive Transformations

Functions

Exponential growth and decay

Extending differentiation and integration

Differentiating exponentials and logarithms

Trigonometry

The modulus function

Solving equations numerically

The chain rule

Differentiating products

Volumes of revolution

Simpson's rule

Core 4:

Differentiating trigonometric functions

Integration

Parametric Equations

Vectors

The binomial expansion

Rational functions

Differential equations

Curves defined implicitly

Scalar products of vectors

Decision 1:

Algorithms

Graphs and networks

Minimum connector problems

Finding the shortest path

Route inspection

The travelling salesperson problem

Linear programming

The simplex algorithm

Examination Board:

OCR

Assessment Structure:

Three examinations to take place at the end of the year.
Examinations in each of the modules; Core 3, Core 4, Decision 1

Subject specific websites to support revision and independent learning:

MyMaths

FMSP website

OCR Website (past papers and mark schemes)

YouTube (tutorials, video solutions to past exam questions)

Recommended subject guides:

- CGP A2-Level Mathematics, Exam Board: OCR, Complete Revision and Practice. ISBN 978 1 84762 5861. [Available from book shops, CGP website and amazon]

The faculty do have some revision books available to purchase available from their teacher

Additional Information:

Revision timetables are issued in March/April and ran by the KS5 mathematics team. Each module will have a specific revision time/day. Year 13 students who are resitting year 12 modules are invited to attend all revision sessions available.

