

**SUBJECT: Core  
Mathematics  
EXAM BOARD:  
AQA**



## Course Overview (Y12)

### Paper 1

Analysis of data (sampling, calculating averages), Maths for personal finance (e.g. student loans, mortgages, interest rates and APR, income tax and National Insurance), Estimation and critical analysis of given data.

### Paper 2

Critical analysis of given data and models, The Normal Distribution, Probabilities and estimation, Correlation and regression.

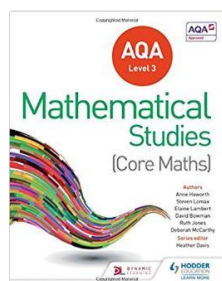
## Useful websites

[www.aqa.org.uk](http://www.aqa.org.uk) - specification, specimen papers.

<http://www.mathcentre.ac.uk/> - support materials, free of charge. There are a variety of resources - self study guides; test yourself diagnostics and exercises; video tutorials; iPod and 3G mobile phone downloads; and case studies. Resources are available on-line, and may be printed or downloaded.

<http://plus.maths.org/content/> - *Plus* is an internet magazine written by the Millenium Mathematics Project which aims to introduce readers to the beauty and the practical applications of mathematics.

## Essential text books and reading list



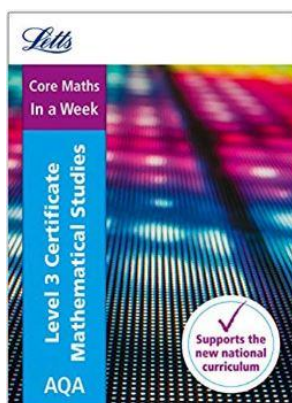
Mathematical Studies for AQA Level 3 (Core Maths)

**Authors:** Heather Davis, Andrew Manning, Dave Gale, Steve Lomax, Marc North, Anne Haworth, Ruth Jones, David Bowman, Elaine Lambert

**Publisher:** Hodder Education

**ISBN-13:** 978-1471863752

You will also require a Casio FX-991EX ClassWiz calculator or a graphics calculator.



AQA Level 3 Certificate Mathematical Studies: Core Maths In a Week

Authors: Letts Core Maths

Publisher: Letts

ISBN-13: 978-0008179724

## Summer task

Students must have strong skills in the following by the time they start the course in September:

Number (real numbers, fractions, percentages and indices).

Straight Line Graphs ( $y=mx+c$ , drawing, finding gradients and equations of straight lines).

Algebra (substitution into formulae).

Knowledge and use of formulae for area and circumference of a circle.

Knowledge and use of formulae for the perimeter of 2-D shapes, their areas and for calculating fractional areas of circles and composite shapes.

The ability to calculate surface areas of spheres, cones, pyramids and composite solids including the application of the concepts of similarity including lengths in similar figures and Pythagoras' theorem applied to 2-D and 3-D figures.

***The summer task booklet provided at the induction session must be completed in preparation for the course and handed in at your first maths lesson in September.***