



# Mathematics

Mathematics is a highly Influential subject which underpins several other subject areas such as Psychology, Biology and Business Studies. You will develop logical thought processes as well as learning precise and accurate modes of presentation. Mathematics is an effective means of modeling, solving and interpreting a wide range of practical problems. The A Level course will help you to develop the skills needed to apply mathematical thinking in real life situations.

## Student Profile

A successful student will need:

6 or above in GCSE Mathematics,  
At least 5 GCSE passes at 5 or above.

An enjoyment and understanding of algebraic methods of problem solving.

Resilience and an ability to cope when faced with a problem that takes several steps to solve.

Willingness to commit regular time to practise outside of the classroom.

## Course Content

**A level Mathematics is a linear qualification, with no options. It has four areas:**

- **Mathematical processes**, comprising problem solving and modelling.
- **Pure mathematics**, including proof, algebra, logarithms, calculus and vectors.
- **Mechanics**, including kinematics, forces, Newton's laws and projectiles.
- **Statistics**, covering probability, binomial, Poisson and Normal distributions plus hypothesis testing.

The course is run by OCR and is assessed with three two-hour papers. There is no coursework.

## Skills Gained

- Understanding of the mathematics that underpin many aspects of our lives.
- The ability to apply a range of mathematical skills to different situations.
- Acute logical thinking and problem-solving abilities.
- The ability to process, interpret and analyse information.

## The Future - What Next?

Mathematics is vital for a wide range of careers. Students who successfully complete this course can use the skills they learn in many diverse fields including: scientific research, engineering, software development, accountancy, market research, product design, internet security and project management. Mathematics students will typically enjoy a 5% to 10% higher salary than those who have not pursued an A level in Mathematics. Mathematics A Level is well respected by university admissions tutors for all degree subjects.

## Staff Contact

Vinny Colley  
Colleyv@lydiardparkacademy.org.uk



**'Potential into Performance'**

*Building Your Future Together*