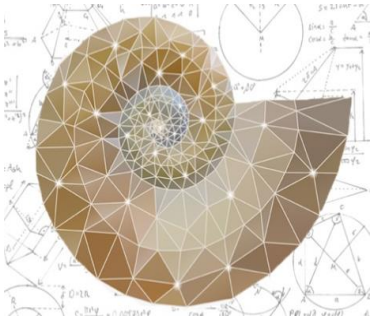
Mathematics		Exam Board Edexcel
		Syllabus number 9MA0

King's School

“It’s not that I’m so smart, it’s just that I stay with problems for longer.”

Albert Einstein

Course entry requirements
Grade 7 in GCSE Mathematics.

Why should I study mathematics?
Maths is everywhere, from the patterns on a butterfly's wings to the trajectory of a rugby conversion. Maths helps us make sense of these patterns and obtain greater structure and predictability in life. Maths helps us price things, build websites, create graphics, and design skyscrapers. A Level Maths develops key employability skills such as problem solving, logical reasoning, communication, and resilience; it is a vital qualification for numerous high paid jobs that play an important role in the British economy. The course builds on work you will have met at GCSE, but also involves many new ideas. If you enjoy maths, have a strong work ethic, and relish the challenge of problem solving then this is the course for you.

What does the course look like?
Pure Maths
This includes familiar topics such as algebra, functions, and co-ordinate geometry. New topics include sequences and series, a wider view of trigonometry, numerical methods, logarithms, differentiation, and integration, together known as calculus.
Applied Maths – Statistics and Mechanics
Statistics involves statistical sampling, data presentation, hypothesis testing and probability, all of which follow on from topics met at GCSE, leading to the study of statistical distributions with special properties. Mechanics includes the maths used to study the physical world, modelling the motion of objects and the forces acting on them. Topics include kinematics, moments, forces, and Newton's laws.
At the end of the two-year course there are three two-hour examinations. Two of these cover the Pure Maths content and the other is Applied Maths. The three examinations are equally weighted.

How will I learn?
You will learn through a variety of techniques; modelling of new ideas, exploring different ways to solve problems and presenting your solutions to your peers. Investing time in solving problems independently is critical to developing your mathematical ability and success in the course.

What kind of things might the subject lead me to?
The skills developed through the study of Maths are in high demand from employers. In addition to developing the ability to solve problems and think logically, the study of Maths provides opportunities to develop team-working skills, resilience, effective communication of complex ideas and the ability to use your own initiative. The vast range of degree courses and careers that require solid mathematical skills ensures that taking Maths to A Level or beyond will open doors to a world of opportunities!