SUBJECT GUIDE: MATHEMATICS

Entry Requirement
7 in GCSE Mathematics

Specification
Edexcel A Level Mathematics (9MA0)

Course Outline (modules, weighting, topics etc)
Pure Mathematics (2 x 2hr exams, each with 33.3% weighting):
Topic 1 – Proof
Topic 2 – Algebra and functions
Topic 3 – Coordinate geometry in the (x, y) plane
Topic 4 – Sequences and series
Topic 5 – Trigonometry
Topic 6 – Exponentials and logarithms
Topic 7 – Differentiation
Topic 8 – Integration
Topic 9 – Numerical methods
Topic 10 – Vectors

Applied Mathematics (1 x 2hr exam, with 33.3% weighting):
Section A: Statistics
Topic 1 – Statistical sampling
Topic 2 – Data presentation and interpretation
Topic 3 – Probability
Topic 4 – Statistical distributions
Topic 5 – Statistical hypothesis testing
Section B: Mechanics
Topic 6 – Quantities and units in mechanics
Topic 7 – Kinematics
Topic 8 – Forces and Newton's laws
Topic 9 – Moments

Why study Mathematics at The Swan?
Students who study Mathematics at A-Level often choose the subject because they have embraced the challenge offered by GCSE Mathematics, thrived, and left with a hunger for further study. This, coupled with the fact that an A-Level in Mathematics is highly sought-after by employers and universities, typically makes it one of the most popular choices for post-16 study.
Teachers at The Swan School understand that Mathematics is sought-after because it is perceived to be among the most challenging A-Level courses. As such, teachers will be dedicated to supporting their students by delivering the same standard of high-quality lessons that has become synonymous with The Swan School since its opening. In addition, students will be expected to show the same levels of dedication to meet the high demands needed to succeed on the course, and will be supported in doing so every step of the way by the passionate and experienced teaching staff in the Mathematics department.