

# SUBJECT GUIDE: COMPUTER SCIENCE

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## Entry Requirement

A Grade 5 or above in both GCSE Mathematics and GCSE Computer Science. If you did not study GCSE Computer Science a grade 7 in Mathematics is required

## Specification

AQA Computer Science (7517)

## Course Outline (modules, weighting, topics etc)

Course Content:

Unit 1: Fundamentals of programming

Unit 2: Fundamentals of data structures

Unit 3: Fundamentals of algorithms

Unit 4: Theory of computation

Unit 5: Fundamentals of data representation

Unit 6: Fundamentals of computer systems

Unit 7: Fundamentals of computer organisation and architecture

Unit 8: Consequences of uses of computing

Unit 9: Fundamentals of communication and networking

Unit 10: Fundamentals of databases

Unit 11: Big Data

Unit 12: Fundamentals of functional programming

Unit 13: Systematic approach to problem solving

Assessment:

Paper 1: On-Screen Exam (40% weighting)

Paper 2: Written Exam (40% weighting)

Non-Exam Assessment (20% weighting)

## Why study Computer Science at The Swan?

Computer Science is a relatively-new A level option, created because of the growing importance in the discipline in our society today. At The Swan School, we have embraced this and invested in brand new, state-of-the-art facilities will enable the excellent quality of teaching of computer science.

A level computer science is a challenging course as many of the topics are quite advanced. At The Swan School, students will be taught by expert, experienced teachers in small classes and will benefit immensely from our supportive, but focussed, academic approach to teaching.

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