

# COMPUTER SCIENCE

OCR | H446

ST GEORGE'S  
ASCOT 

Computer Science is a subject where pupils can apply the academic principles learned in the classroom to real world systems. It's an intensely creative subject that combines invention and excitement with theoretical understanding and expertise.

The course encourages pupils to be inspired, motivated and challenged by following a broad, coherent, practical, satisfying and worthwhile course of study. It will provide insight into, and experience of, how computer systems work, stimulating learners' curiosity and encouraging them to engage with computer science in their everyday lives and to make informed choices about further study or career choices.

## THE COURSE

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The aims of this qualification are to encourage pupils to develop an understanding of, and ability to apply, the fundamental principles and concepts of Computer Science. These include: an understanding of abstraction, decomposition, logic, algorithms and data representation; the ability to analyse problems in computational terms through practical experience, including designing, developing and writing programs; the capacity to think creatively, innovatively, analytically, logically and critically; the capacity to see relationships between different aspects of Computer Science; and the application of mathematical skills.

## ASSESSMENTS

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- **Paper 1 - Computer Systems**  
40% (2 hrs, 30 minutes) 140 marks written paper (no calculators allowed)
- **Paper 2 - Algorithms and Programming**  
40% (2 hrs, 30 minutes) 140 marks written paper (no calculators allowed)
- **Paper 3 - Programming Project**  
20% 70 marks
- **NEA (Non-exam assessment) – Programming Project**  
20% 70 marks

## BEYOND THE COURSE

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Computer Science pupils can expect to have a whole range of career pathways open to them including: Software Engineer or Specialist, Web Designer or Developer, IT Consultant/Trainer, Computer Analyst, Networking Specialist, Application Analyst/ Developer, Web Content Manager, and Games Designer/ Developer.

These are just a selection of possible career paths in a broadly diverse field, but Computer Science also provides vital skills for many other University courses and careers, such as data modelling, project planning, problem decomposition and algorithmic thinking.