

# Computer Science A Level

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## Why King's?

### Facilities

- Suite of 3 computer rooms
- Windows PCs built to latest specifications  
IPads used across lesson

### Highlights

- Participation in Cyber Security Challenge  
UK competition
- Bebras Computational Thinking Competition  
Sixth Form trip to Bletchley Park

Here's a brief look at the course units and the content for OCR A Level Computer Science qualifications.  
(A background in basic coding would be very advantageous)

## 01 Computer Systems

This component will be a traditionally marked and structured question paper with a mix of question types: short-answer, longer-answer, and levels of response mark-scheme-type questions. It will cover the characteristics of contemporary systems architecture and other areas including the following:

The characteristics of contemporary processors, input, output and storage devices

- Software and software development
- Exchanging data
- Data types, data structures and algorithms
- Legal, moral, cultural and ethical issues.

## 02 Algorithms and Programming

This component will be a traditionally marked and structured question paper with two sections, both of which will include a mix of question types: short-answer, longer-answer, and levels of response mark-scheme-type questions.

### SECTION A

- Traditional questions concerning computational thinking:
- Elements of computational thinking
- Programming and problem solving
- Pattern recognition, abstraction and decomposition
- Algorithm design and efficiency
- Standard algorithms.

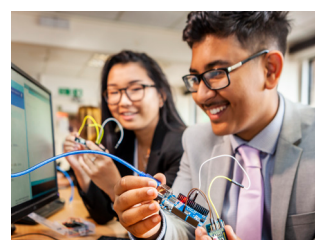
### SECTION B

There'll be a scenario/task contained in the paper, which could be an algorithm or a text page-based task, which will involve problem solving.

## Academic Performance

**100% A\*-C**

Computer Science A Level



## 03 Programming Project

Students and/or centres select their own user-driven problem of an appropriate size and complexity to solve. This will enable them to demonstrate the skills and knowledge necessary to meet the Assessment Objectives. Students will need to analyse the problem, design a solution, implement the solution and give a thorough evaluation.

The A Level will consist of three components, two of which will be externally marked 2 hour 30 minute question papers making up 80% of the qualification.

The other 20% will be the coursework project, which has a greater emphasis on coding and programming with a simple assessment model and marking criteria.