



**Education & Children's Services**  
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# Course Choice Information – Computing Science - Higher

## Course Information & Content

Computing Science underpins all the modern technology and systems we use in our everyday lives, including critical systems such as the internet and mobile devices.

This course follows on from the key skills and knowledge developed at National 5, focussing on understanding and developing algorithms for software and online development.

### Software Design and Development

Pupils continue exploring the designing and writing of software using modern programming environments such as Python 3. Pupils learn how to work with more complex algorithms and data structures for solving problems.

### Computer Systems

Pupils enhance their skills and knowledge in computer hardware, software and data representation.

### Web Design and Development

Pupils build on their practical skills in HTML, CSS and JavaScript to integrate these with modern server-side scripting such as PHP.

### Database Design and Development

Pupils study the design of structured databases that lie behind modern web applications, social media platforms and Information Systems, learning to use SQL to manipulate them.

## Assessment

- Course Assignment: a practical task done in class (31%)
- SQA Exam: sat during the main exam diet in May (69%)

## Homework

Homework will be set on regular basis and can include completion of classwork, practice of technical terms, revision and consolidation questions and answers. Access to a computer would be beneficial; software used in the course is freely downloadable.

## Progression

Advanced Higher Computing Science |HNC/D courses at College |Degree Courses at University including Computing Science, Software Development, Cyber Security and IT Infrastructures

## Career Options

Almost any modern career benefits from Computing Science skills and understanding computer technology. Specific areas might include:

App or Software Development |Web Development |Online Media |Security & Cybercrime-related jobs  
Network Engineer |Hardware Creation and Development |Games Development |Multimedia Specialisms  
Technology training and support |Artificial Intelligence |Bioengineering & Medical research |Teaching |Digital Electronics or communications

[More Information - SQA](#)

