

GCSE

Computer Science

Why choose GCSE Computer Science?

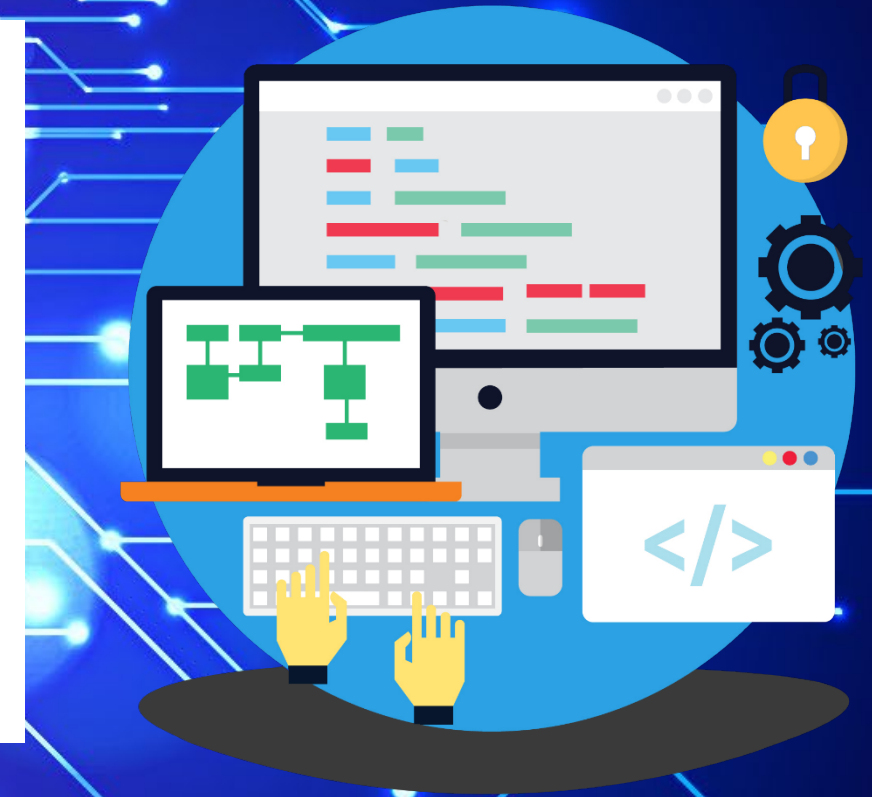
This exciting GCSE gives you an excellent opportunity to investigate how computers work and how they are used and to develop computer programming and problem solving skills.

GCSE Computer Science also counts as an EBacc subject.

What skills can you get from it?

The course will help you learn about critical thinking, analysis and problem solving.

We hope you will find it fun and an interesting way to develop these skills, which can also be transferred to other subjects and even applied to day-to-day life.



How could it help with your future?

If you take GCSE Computer Science and then go on to study the subject at A Level or university, you will have an advantage over fellow students who are picking up the subject at these higher levels.

The increasing importance of information technologies means there will be a growing demand for professionals who are qualified in this field.

This course is also useful if you are thinking of a career in engineering, financial, resource management, science and medicine.

Course content: What will you learn?

Course Structure

Component 1 – Computer Systems	Component 2 – Computational thinking, algorithms and programming	Practical Programming
50%	50%	Formal requirement
Written paper	Written paper	Not assessed

You cannot use a calculator in the
exam

Component 1: What will you learn?

Topics include:

Systems architecture

Memory and storage

Computer networks, connections and protocols

Network security

Systems software

Ethical, legal, cultural and environmental impacts of digital technology

Component 2: What will you learn?

Topics include:

- Algorithms
- Programming fundamentals
- Producing robust programs
- Boolean logic
- Programming languages and Integrated Development Environments

Practical Programming: What will you learn?

Practical programming is a formal requirement of the GCSE.

You will use a text based programming language at this stage such as Python.

By doing this we hope that you will develop your knowledge of these areas through actually designing and coding solutions to problems.

This will support you with your Component 2 exam.

Examples of work



How will you be taught?

Theory lessons will be delivered using a variety of resources:

- Multimedia presentations
- Worksheets
- Interactive websites
- Online revision guides
- Online video tutorials

All resources will be available through Microsoft Teams/OneNote classbook for you to access and revise from home as well as school.



What makes a good Computer Scientist?

Logical brain and can break problems down
Strong mathematical ability & confidence
(working at Secure/Mastery)
Problem solving skills
Ability to work at a fast pace
Excellent organisational skills
Independence
Good attendance



Where can Computer Science lead?

Further education:

A Level Computer Science offered at Barrow Hall College
Cambridge Technical IT offered at Barrow Hall College
Computer Science or similar courses at university

Job prospects:

Software developer
Web designer
Junior programmer
Apprenticeships with companies such as Intel, Microsoft,
Barclays, Cisco and so many more

Thank you for listening.

Are there any questions?