

Course Summary for GCSE Computer Science

Computer systems

- Systems Architecture
- Memory
- Storage
- Wired and wireless networks
- Network topologies, protocols and layers
- System security
- System software
- Ethical, legal, cultural and environmental concerns

Computer systems
(01)
80 marks
1 hour and 30 minutes
Written paper
(no calculators allowed)

50%
of total
GCSE

Computational thinking, algorithms and programming

- Algorithms *
- Programming techniques
- Producing robust programs
- Computational logic
- Translators and facilities of languages
- Data representation

Computational thinking,
algorithms and programming
(02)
80 marks
1 hour and 30 minutes
Written paper
(no calculators allowed)

50%
of total
GCSE

* Algorithm questions are not exclusive to Component 02 and can be assessed in either component.

Programming Project

- Programming techniques
- Analysis
- Design
- Development
- Testing and evaluation and conclusions

20 timetabled hours

Formal requirement
Consolidates the learning
across the specification
through practical activity.

COMPUTER SCIENCE



ocr.org.uk/gcse/computerscience

Taking your computing Skills in
a new direction

Why Choose GCSE Computer Science?

A modern course for a modern world

This is a course that has real relevance in our modern world. While you will already have some knowledge of computers and related areas, the course will give you an in-depth understanding of how computer technology works and a look at what goes on 'behind the scenes'. As part of this, you will investigate computer programming.



Computing for Creativity

Through this study of computer programming, the course will help you to develop critical thinking, analysis and problem solving skills. You will hopefully find it a fun and interesting way to learn these skills which can be transferred to other subjects and even applied in day-to-day life.

Looking to the future

It is a fact that information technologies continue to have a growing importance. This means that there will be a bigger demand for professionals who are qualified in this area. If you want to go on to higher study and employment in the field of Computer Science, you will find that this course provides a superb stepping-stone.

Course/Assessment Objectives

Recall, select and communicate

You will demonstrate your ability to recall, select and communicate your knowledge and understanding of computer technology.

Apply knowledge, understanding and skills

You will demonstrate your ability to apply knowledge, understanding and skills to solve problems by using computer programs.

Analyse and evaluate

You will demonstrate your ability to analyse, evaluate, make reasoned judgements and present conclusions.



How the Course Will Run



The course is made up of theory work (to work towards a written exam) and a Non-Examined Programming Project.

The theory you will be learning covers such things as understanding algorithms, data representation, encryption and compression, computer networks and the impact of computing on individuals, society and the environment.

The Non-Examined Programming Project is done during timetables lessons and can be done in Y10 and/or Y11. You can choose from a set of tasks from the exam board and you will design, develop, test and evaluate your program.