



SUBJECT: GCSE Computer Science

YEAR: 10 & 11

HEAD OF DEPARTMENT: Mr Wells

LEAD TEACHER: Ms Clements

GROUPING POLICY: Mixed ability in option blocks

EXAM BOARD: AQA

ASSESSMENT: 100% External Examination

Link to Specification:

<https://www.aqa.org.uk/subjects/computer-science-and-it/gcse/computer-science-8525>

COURSE CONTENT

Curriculum Intent

Computing is an enormous importance to the economy and the role of Computer Science as a discipline itself and as an 'underpinning' subject across science and engineering is growing rapidly.

Computer technology continues to advance rapidly and the way that technology is consumed has also been changing at a fast pace over recent years. The growth in the use of mobile devices and web-related technologies has exploded, resulting in new challenges for employers and employees. For example, businesses today require an ever-increasing number of technologically-aware individuals. This is even more so in the gaming, mobile and web related industries and this specification has been designed with this in mind.

Students will complete this course equipped with the logical and computational skills necessary to succeed at A-level, the workplace or beyond.

In addition, they will:

- Learn how to create simple computer games
- Gain an understanding of the fundamental concepts around creating software applications
- Have opportunities to work collaboratively.

The qualification gives students an understanding of key computing concepts and the fundamentals of programming. The course would best suit a student looking to study a science and / or a competent mathematician.

ASSESSMENT

How will my child's work be assessed?

100% of the qualification is assessed at the end of Year 11 through two external examinations.

See below for details.

Progression Routes:

The demand for skilled Computer Science students is continually growing and outstripping supply. Computer Science graduates are highly in demand by employers both in the UK and abroad.



Paper 1: Computational thinking and programming skills

What's assessed

Computational thinking, code tracing, problem-solving, programming concepts including the design of effective algorithms and the designing, writing, testing and refining of code.

Fundamentals of algorithms
Programming skills

How it's assessed

- Written exam: 2 hours
- 90 marks
- 50% of GCSE

Questions

A mix of multiple choice, short answer and longer answer questions assessing programming, practical problem-solving and computational thinking skills.

Paper 2: Computing concepts

What's assessed

Fundamentals of data representation
Computer systems
Fundamentals of computer networks
Cyber security
Relational databases and SQL
Ethical, legal and environmental impacts of digital technology on wider society and privacy

How it's assessed

- Written exam: 1 hour 45 minutes
- 90 marks
- 50% of GCSE

Questions

A mix of multiple choice, short answer, longer answer and extended response questions assessing SQL programming skills and theoretical knowledge.

