

Computer Studies KS4 Curriculum

Key Stage 4 Curriculum

At Key Stage 4 students either complete the Edexcel GCSE Computer Science or Edexcel Certificate in Digital Application.

Course Choices:

GCSE Computer Science:

- Computational thinking
- Python Programming
- Algorithm
- Networks
- Hardware and software

Certificate in Digital Application:

- Photo shop
- Web design
- HTML Web design
- Game design

GCSE Computer Science

The GCSE Computer Science specification has been created to get students working with real-world programming and provides a good understanding of the fundamental principles of computing as well as developing their computational thinking skills. This provides an academically challenging specification for students of all ability levels. Students can choose from a range of programming languages for non-exam assessment providing them with flexibility and greater scope to achieve the highest grades. The GCSE Computer Science course has built-in progression to further studies and is recognised as developing the skills that employers value.

This qualification is linear. Linear means that students will sit all their exams and submit all their non-exam assessment at the end of the course.

Subject Content:

1. Fundamentals of Algorithms
2. Programming

3. Fundamentals of Data Representation
4. Computer Systems
5. Fundamentals of Computer Networks
6. Fundamentals of Cyber Security
7. Ethical, Legal and Environmental Impacts of Digital Technology on Wider Society, Including Issues of Privacy
8. Aspects of Software Development
9. Problem Solving and Computational thinking
10. Non-Exam Assessment (Programming)

Edexcel Certificate in Digital Application

The Edexcel Level 2 Certificate in Digital Applications has been designed to engage and enthuse young people with an interest in creative computing, for example digital graphics and animations, interactive multimedia products and computer games. Coursework requires self-motivation, good attendance and an ability to meet deadlines.

What will you learn?

Unit 1 – Developing web products

2.5 hour practical exam

Worth 25% (externally assessed)

Students will then complete one additional coursework unit which is worth 75% and internally

Assessed.

- Unit 2 - Creative Multimedia
- Unit 3 - Artwork & imaging
- Unit 4 - Game Making