



Curriculum Intent of ICT/COMPUTING September 2026

Intent

The KS3 Computing curriculum is designed to develop confident, responsible, and creative users of technology. It aims to build a strong foundation in computational thinking, digital literacy, and programming so that students are well prepared for further study and the increasing demands of a digital world.

Skills

The core skills students will develop are:

- computational thinking to decompose problems, recognise patterns, abstract information, and design algorithms.
- programming skills through writing, testing, and debugging code
- evaluate digital systems and content critically.
- using technology safely and responsibly, including understanding e-safety and managing their digital footprint.
- data handling, basic analysis, and collaborative working using digital tools.

Knowledge

The core knowledge students will develop is:

- computer systems, including hardware, software, the CPU, memory, and storage.
- networks, including how the internet and the World Wide Web function.
- programming knowledge includes understanding sequencing, selection, iteration, and the use of variables.
- data representation, including binary and how images and sound are stored.
- cybersecurity threats and prevention methods
- digital literacy skills such as file management and the use of productivity software.
- creative computing such as graphics and web design.

Intent

The OCR GCSE Computer Science course aims to develop logical, analytical thinkers who understand how computer systems operate and how to design and implement programs. It prepares students for further study and careers in computing by combining theoretical knowledge with practical programming skills.

Skills

The core skills students will develop are:

- ability to write, refine, and debug programs using a high-level programming language such as Python.
- apply computational thinking to solve increasingly complex problems by breaking them down into manageable components.
- analyse algorithms and evaluate system performance
- consider ethical, legal, and environmental impacts of technology.
- strengthen their exam technique by practising how to interpret questions and apply theoretical knowledge to different scenarios.

Knowledge

The core knowledge students will develop is:

- systems architecture, including the structure and function of the CPU and the Von Neumann architecture.
- memory and storage, including RAM, ROM, and secondary storage devices.
- networking and security topics include protocols, common threats, and prevention methods.
- programming knowledge covers data types, data structures, and standard algorithms.
- searching and sorting algorithms
- data representation, including binary and hexadecimal systems.
- ethical, legal, and cultural issues such as data protection and privacy.

KS4 – OCR Creative iMedia

Intent

The OCR Creative iMedia course is designed to equip students with practical, creative, and technical skills that are relevant to the digital media industry. It prepares learners for further vocational study or careers in creative and digital sectors.

Skills

The core skills students will develop are:

- design digital media products in response to client briefs.
- use industry-standard software to create graphics, videos, and other media products.
- planning skills through the creation of storyboards, scripts, and design documents.
- review and refine their work based on feedback
- developing project management and time management skills.
- responding to client requirements and adapting their work accordingly.

Knowledge

The core knowledge students will develop is:

- pre-production processes, including how to interpret client briefs and create planning documents.
- graphic design and editing techniques
- key design principles such as layout, colour theory, and typography.
- visual identity through understanding branding and logo design.
- legal and ethical issues, including copyright and intellectual property
- how to design products suitable for specific audiences and purposes.

KS5 – OCR A-Level Computer Science

Intent

The OCR A-Level Computer Science course aims to develop independent learners with advanced problem-solving and programming skills. It prepares students for higher education and careers in computing by deepening their understanding of both theoretical and practical aspects of computer science.

Skills

The core skills students will develop are:

- design and implement complex programs, including the use of object-oriented programming techniques.
- design efficient algorithms and analyse their performance.
- problem-solving skills through abstraction, modelling, and logical reasoning.
- produce detailed technical documentation and complete an independent programming project as part of their non-exam assessment.

Knowledge

The core knowledge students will develop is:

- advanced programming concepts, including object-oriented programming, recursion, and complex data structures.
- algorithms such as pathfinding and tree traversal, as well as optimisation techniques.
- computer systems includes topics such as concurrency and parallel processing.
- data representation in greater depth, including floating-point representation, compression, and encryption.
- database concepts, including SQL and relational models
- functional programming and the theory of computation.

KS5 – Edexcel BTEC IT (AAQ)

Intent

The Edexcel BTEC IT AAQ course provides a practical and career-focused pathway into the IT industry. It aims to develop students' ability to apply their knowledge in real-world contexts while preparing them for employment or further study in IT-related fields.

Skills

The core skills students will develop are:

- project planning and management skills, including an understanding of different development methodologies such as agile and waterfall.
- design and develop IT solutions to meet real-world needs.
- analytical skills through data interpretation and evaluation of IT systems.
- an understanding of cybersecurity risks and how to manage them.
- communication skills to present technical information clearly to a range of audiences.

Knowledge

The core knowledge students will develop is:

- how information systems are used within organisations.
- data management, including databases and data modelling techniques.
- cybersecurity topics include threats, vulnerabilities, and methods of mitigation.
- software development lifecycle, including testing and implementation.
- emerging technologies such as artificial intelligence, cloud computing, and the Internet of Things.
- legal and ethical considerations, including GDPR and data handling
- understanding the role of IT in a business context.