A Level | Apprenticeships | T-LEVELS THE NEXT LEVEL QUALIFICATION | BTEC

What will I learn in Computer Science?

Our Lady's Catholic High School

Programming Theory: strings, program flow, boolean logic, arrays, file handling, sub programs storing and searching data

Design, Testing and IDE's (2): trace tables and translators

Careers in the Curriculum (9): creativity

Algorithms and Computational Thinking (4): pseudocode and flowcharts

Revision and preparation for GCSE exams

Year 11

Careers in the Curriculum (8): careers research

Design, Testing and IDE's (1): structured programming, defensive design and testing

Programming Techniques (4): python

Careers in the Curriculum (7): exploration and inspiration for career skills

Programming Techniques (3): IDEs, algorithms and python

Data Representation (4)

Careers in the Curriculum (8): programming

Algorithms and Computational Thinking (3): creating, searching and sorting algorithms

Year 10

Careers in the Curriculum (6): careers of the future

Ethical, Legal, Environmental and Cultural Issues (4)

Components of Computer Systems: secondary storage and systems software

Networks (4): hardware, client server, peer to peer topologies, protocols, internet/network security threats

Systems Security (3): malware, trojans, worms, virus and social engineering

Ethical, Legal, Environmental and Cultural Issues (3): impact of technology, open source, proprietary software and legislation

Systems Software (3): operating systems, user accounts, utility and software

Online Safety (2): fake news

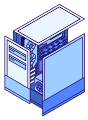
Careers in the Curriculum (5): workplace skills

Programming Techniques (2): operators, syntax/log errors, data types constants/variables, inputs/outputs, sequence, selection, iteration and small basic

Networks (3): network hardware and the internet

Year 9

Data Representation (3): binary to denary, hexadecimal numbers, logic gates, compression, storing images and sound



Systems Architecture (4): CPU, memory, performance and storage

Systems Architecture (3): computers system components and and embedded systems

Algorithms and Computational Thinking (2): application

Ethics, Legal and Cultural Issues (2): problems when using computer systems

Careers in the Curriculum (3): options

Algorithms and Computational Thinking (1): problems, instructions and simple flowcharts

Applying Computational Thinking Project

Online Safety (1): online reputation

Systems Software (2): operating systems, application and utility software

Systems Security (2): network attacks and prevention

Ethics, Legal, Environmental and Cultural Issues (1): definitions

Year 8

Programming Techniques (1): Scratch

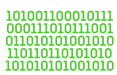
Systems Architecture (2): multifunctional/embedded systems, system components, CPU and memory

Networks (2): LANs and WANs

Systems Security (1): malware and network protection

Careers in the Curriculum (2): mathematical skills

Data Representation (2): binary to denary numbers, addition and character sets



Careers in the Curriculum (1): problem solving

Systems Software (1): utility, application software and operating systems

Systems Architecture (1): hardware and input/output devices, storage methods and units of data

Data Representation (1): binary and simple colour

Introduction to Computer Science

E-Safety

Wired and Wireless Networks (1): star/mesh topologies and network hardware

Year 7