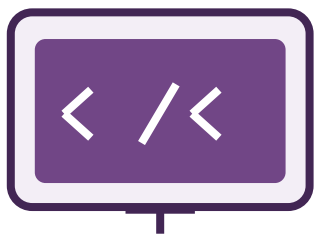
FURNESS ACADEMY

CURRICULUM OVERVIEW

COMPUTER SCIENCE

YEAR 10 | OCR GCSE J277



J277/01 | COMPUTER SYSTEMS

Systems architecture, CPU, fetch–decode–execute, memory and secondary storage.

J277/01 | DATA & NETWORKS

Binary, denary and hexadecimal; representation of text, images and sound; networks and protocols.

J277/02 | ALGORITHMS

Decomposition, computational thinking, flowcharts, pseudocode and algorithm design.

J277/02 | PROGRAMMING

Variables, data types, operators, selection, iteration and introductory program development.

KEY SKILLS

Explain hardware and data representation • Convert between number systems • Design algorithms and pseudocode • Write and test programs

PROGRESSION

Connect computer systems knowledge with algorithmic thinking and practical programming. The overview does not specify a Year 10 teaching sequence.

ENRICHMENT & APPLICATION

Apply knowledge through programming challenges, algorithm design and computer systems investigations.

FUTURE PATHWAYS

OCR GCSE Computer Science J277; preparation for A-level Computer Science and Level 3 technical courses.