EDEXCEL GCSE COMPUTER SCIENCE 1CP2 • CURRICULUM ROAD MAP

YEAR 11

Master and perform

Computational Thinking
decomposition • abstraction
algorithms • tracing

Logic & Algorithms
truth tables • searches
sorts • errors • efficiency

Paper 1
Topics 1–5
interleaved retrieval + mocks

Paper 2 Programming
design → write → test → refine
unfamiliar problems

Targeted Intervention
gap analysis • re-teach
re-attempt • timed practice

GCSE EXAMS

FINAL DESTINATION
Paper 1: Principles
Paper 2: Application of Computational Thinking

Python Development
constructs • arrays • files
validation • functions

Impacts of Technology
environment • AI • ethics
law • IP • data

Network Security
topologies • layers
security measures

Protocols & TCP/IP
Ethernet • Wi-Fi • HTTP(S)
email • FTP • TCP/IP

Networks
LAN/WAN • internet
wired/wireless • transfer rates

Cybersecurity
malware • vulnerabilities
social engineering • protection

YEAR 10

Apply and connect

Binary
representation • conversion
2's complement • shifts

Data Representation
ASCII • images • sound
resolution • sampling

Storage & Compression
units • file size
lossy / lossless

Computer Hardware
CPU • RAM • FDE cycle
storage • embedded systems

Software & Languages
OS • utilities
compiler / interpreter

Python Foundations
decompose • trace • code
debug • test • refine

START GCSE

YEAR 9

Build the foundations

PROGRAMMING SPINE: Python is revisited throughout KS4 → increasing independence

• Theory • Programming • Mastery • Assessment