

(A)UTHENTIC

(S)ACRED

(P)ASSIONATE

(I)NSPIRATIONAL

(R)ESILIENT

(E)MPATHETIC

Y11 Computer Science (STEM SUBJECT) – Curriculum Map

Advent

Computer science OCR J277

Curriculum content:

Computer Networks, connections and protocols

- Networks and Topologies
- Wired and wireless networks, protocols and layers

Network security

- Threats to computer systems and networks
- Identifying and preventing vulnerabilities
- Systems architecture
- Memory and storage
- Algorithms
- Boolean Logic
- Programming
- Operating systems
- Ethical and cultural impacts

Interleaving:

Revisit Yr.10 content via ten-minute test 'Do It Now's'

Reading 3-2-1

Lent

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Curriculum content:

- **Review** of mock examination.
- **Extra-curricular assigned Seneca assignments**
- **Mock 2** - as per school calendar - emphasis on Paper 2, part B
- Revisit Programming

Programming fundamentals

- Programming fundamentals
- Data types
- Additional programming techniques SQL
- Inputs and outputs
- Sequence
- Selection
- Iteration
- File handling

Reading 3-2-1

Review of learning

Takes place during and at the end of each half term and during Do It Now activities

Disciplinary knowledge - revisit

- Systems architecture
- Memory and storage
- Algorithms
- Boolean Logic
- Programming
- Operating systems
- Ethical and cultural impacts

Disciplinary knowledge

- Computer Networks, connections and protocols
- Network security

Formative assessments; AO3/4; 'Do It Now's', key terms and retrieval activities [set works/exam style questions], dual coding, metacognition strategies and exam technique.

AO1/2; ongoing formative teacher feedback provided.

Summative assessments; formal review of performance skills DIRT activity, bespoke teacher feedback - mark to GCSE specification.

CST

Participation
Rights and responsibilities
Common Good

Careers

College assemblies
British Values