

(A)UTHENTIC

(S)ACRED

(P)ASSIONATE

(I)NSPIRATIONAL

(R)ESILIENT

(E)MPATHETIC

Y10 Computer Science OCR (STEM SUBJECT) – Curriculum Map

Advent

Lent

Pentecost

Review of learning

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

Disciplinary knowledge

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

Review of learning

Formative assessments

Do It Now

Summative

DIRT activity

Bespoke teacher feedback - mark to GCSE specification.

CST

Participation, Rights and responsibilities, Common Good Stewardship of creation, Option for the poor

Careers

GCSE OCR CS options
College assemblies

British Values

Computer science OCR J277 Curriculum content:

Systems architecture

- Architecture of the CPU
- CPU performance
- Embedded systems

Memory and storage

- Primary storage
- Secondary storage
- Units, binary and Hexadecimal
- Data storage
- Compression

Algorithms

- Computational Thinking
- Designing creating refining algorithms
- Searching and sorting algorithms

Reading 3-2-1

Computer science OCR J277 Curriculum content:

Boolean Logic

- Logic gates and or not
- Truth tables
- Logic diagrams

Programming fundamentals

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

Reading 3-2-1

Computer science OCR J277 Curriculum content:

Producing robust programs

- Defensive design
- Testing

Programming languages and IDE's

- Languages HL and LL
- The Integrated development environment

Systems software

- Operating systems
- Utility software

Ethical legal cultural environmental impact

- Impacts of digital technology on wider society
- Legislation relevant to Computer Science

Reading 3-2-1