



Computer Science



Archdiocese of Liverpool

Curriculum intent:

The Computer Science Department intends to equip all pupils to use computational thinking and creativity when understanding the modern world. We understand that Computer Science has deep links to Mathematics, Science and Design and Technology. We aim to build on this and teach the principles of Information and Computation.

We equip pupils to use Information Technology to create programs, systems and a range of content. Computing ensures that pupils become digitally literate at a level suitable for the future workplace and as active participants in a digital world.

Year 11

TERM 1

Content

Systems software & Security

This unit explains the threats to, vulnerabilities of and methods of protection for computer systems.

Ethical, Legal, Cultural & Environmental Concerns

This unit examines the ethical, cultural, environmental & legal considerations related to Computer Science technologies.

Concepts and Skills

- Understanding network threats.
- Identifying vulnerabilities.
- Operating system software & utility software solutions.
- Ethical & cultural issues of computers in the modern world.
- Legislation & privacy.

TERM 2

Logic & Languages

This unit explores the fundamentals of using logic within programming languages.

Data representation

This is a theoretical unit detailing the methods by which data is represented within programming code.

- Logic diagrams & truth tables.
- Defensive design.
- Errors & testing.
- Translators & facilitators
- Storage units & binary numbers.
- Hexadecimal. ASCII & Unicode.
- Images, sound and compression.

TERM 3

Revision

This time will be used to go back over key concepts taught and target any areas of mis-conception/weakness.

- Use of past paper questions.
- Development of examination techniques.
- Production of revision mind maps.
- Development of revision techniques.
- Production of revision materials.

