



Computing



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 7

Content

Using Computers Safely, Effectively & Responsibly.

This is a theoretical unit covering the necessary basic knowledge to use computers safely, effectively and responsibly.

Graphics

This is an introduction to graphics and graphic file types. The unit explores how bitmap and vector images are represented and stored by the computer.

Control Systems with Flowol

This unit covers the principles of control solutions using flowcharts

Computer Programming using Scratch

This unit develops pupil's skills of using a visual programming environment.

First Steps in Small Basic

This unit is an introduction to programming in a textual language

Python for Beginners

This unit introduces the use of a text based programming language & environment.

Concepts and Skills

- Introduction to school systems, File Management and Security.
- Social Networking, cyber bullying and phishing.
- Using Email.
- Searching the Internet.
- Vector and Bitmap images
- Conveying meaning, effects and enhancements
- Adding text

- Flowchart symbols, sequencing, sensors.
- Subroutines, variables & actuators.

- Designing a graphical user interface, enabling animated movement, setting variables, scoring, randomising & testing.

- Introducing the turtle
- Using For.....EndFor Loop
- The Text window / Using variables
- Conditions / branching and using random numbers

- Structuring algorithms, constructing suitable syntax, debugging, addition of variables, use of comments and simple selection statements.

TERM 1

TERM 2

TERM 3

