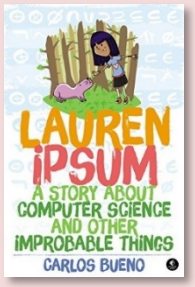
The English Martyrs Catholic School and Sixth Form College

ICT Year 7	Module 1	Module 2	Module 3
Topic Theme and Intent	Gain an understanding of the use of **online technologies** focused on how to stay safe online. Develop knowledge of hardware and software components used to create **networks** to understand how communication is carried out.	Develop skills in **block programming** to structure and sequence scripts including the use of **flowcharts**. Understand the flow of data through a real-world system and create a **project** for a particular audience and purpose.	Gain an understanding of the binary number system and how to convert between **binary** and **denary**. Further develop programming skills creating programs for a **Micro:Bit** utilising functions to extend programming knowledge.
Knowledge	• Different ways to use technology safely, respectfully, responsibly and securely. • Hardware and software components that make up computer systems and communication.	• Design computational abstractions and use programming language to model real-world problems. • Use of digital artefacts for a given audience with attention on design and usability.	• Design abstractions and further develop programming skills focused on physical systems. • Understand simple Boolean logic and how data is represented in binary form.
Skills	Protect online **privacy** and recognise methods for reporting content that is **inappropriate**. Identify how computer systems **communicate** with one another and with other systems.	Design **abstractions** that will model real-world issues and use Scratch to develop a simple program. Create a **project** for a target audience utilising programming and design skills.	Represent numbers using **binary**, carrying out conversion to and from denary and binary addition. Use the Micro:Bit to solve **computational problems** to design and develop simple programs.
Literacy Links	**Reading –** Research sources and analyse text using respectful communication. **Writing –** Present material for a target audience and repurpose text. **Oracy –** Class discussion on key issues, respond to challenge questions.	**Reading –** Understand block-based program commands and error checking. **Writing –** Basic programming commands and written evaluation of a project. **Oracy –** Discuss key issues with peers and teacher, focused on programming.	**Reading –** Analyse context of problems to design appropriate solutions. **Writing –** Produce program code following the syntax of the language. **Oracy –** Keyword focus in discussion points explaining processes.
Essential Vocabulary	Bandwidth, Buffer, Hub, Network, Packet, Router, Server, World Wide Web	Flowchart, Input, Output, Script, Sense, Sprite, Stage, Variable	Binary, Bitmap, Condition, Denary, Pixel, Selection, String, Variable

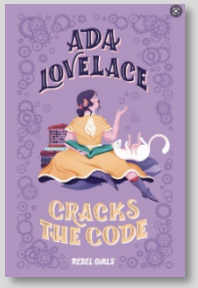
Disciplinary Reading

Lauren Ipsum



Reading for Pleasure

Ada Lovelace Cracks the Code



Computational Fairy Tales