

Top-Level Overview for Key Stage 3 Curriculum: Computing

1. Endpoint for the end of Key Stage 3:

By the end of Key Stage 3, students will:

- Apply computational thinking techniques including abstraction, decomposition and algorithmic thinking to solve problems.
- Design, create, test and refine programs using both block-based and text-based programming languages.
- Use programming constructs including sequence, selection, iteration, variables, functions and data structures.
- Understand how data is represented digitally using binary and other encoding methods.
- Explain how computer systems, networks and the internet operate.
- Collect, analyse, interpret and present data using appropriate digital tools.
- Create, evaluate and refine digital artefacts for a range of audiences and purposes.
- Evaluate the reliability, credibility and trustworthiness of digital content.
- Understand how technology impacts individuals and society, including ethical, legal and environmental considerations.
- Use digital technologies safely, responsibly and respectfully.

2. Topic Overview

Year Group	Autumn Term	Spring Term	Summer Term
	Topics:	Topics:	Topics:
7	1. Communicating Effectively & Respectfully Online 2. Programming Essentials Using Block-based Language	3. Writing Effective Documents 4. Understanding Networks	5. Programming in Python 6. Working With Data
8	1. Representations: From Clay to Silicon 2. Computing Systems	3. Developing for the Web 4. Python Turtle	5. Cybersecurity 6. Media Vector Graphics
9	1. Building Graphical User Interfaces Using Python GuiZero 2. Modern & Future Technologies	3. Big Data 4. Data Detectives: Social media	5. Digital Media 6. The Great Year 9 Project: Indie Game Studio

