

Aims The national curriculum for computing aims to ensure that all pupils: [National Curriculum - Computing key stages 3 and 4](#)

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology

📖 National Curriculum: Computing at KS3		
🔧 1. Computer Science	💻 2. Information Technology	🌐 3. Digital Literacy
<p>📖 Design and use computational abstractions to model real-world problems.</p> <p>Understand and apply key algorithms (e.g. sorting, searching).</p> <p>Use two or more programming languages, including at least one textual (e.g. Python, JavaScript).</p> <p>Develop modular programs using procedures or functions.</p> <p>📖 Understand Boolean logic (AND, OR, NOT) and binary number systems.</p>	<p>Understand how hardware and software components interact.</p> <p>Use IT to create programs, systems, and content.</p> <p>Apply IT tools to solve problems and analyse data.</p> <p>Use data structures (e.g. lists, tables, arrays) appropriately.</p>	<p>Become digitally literate and responsible users of technology.</p> <p>Understand online safety, data protection, and ethical use of digital tools.</p> <p>Communicate ideas effectively using digital media (e.g. presentations, websites, documents).</p> <p>Evaluate the impact of technology on society and the environment.</p>

ICT – PROGRAMME OF STUDY – KS3 – DIGITAL LITERACY				
	1. Become digitally literate and responsible users of technology	2. Understand online safety, data protection, and ethical use of digital tools	3. Communicate ideas effectively using digital media	4. Evaluate the impact of technology on society and the environment
Prior Learning	<p>Basic understanding of how to use devices safely.</p> <p>Awareness of online rules and etiquette.</p>	<p>Awareness of not sharing passwords or personal info.</p> <p>Experience with school internet safety rules.</p>	<p>Experience creating slideshows or posters.</p> <p>Basic typing and formatting skills.</p>	<p>General awareness of how technology is used in daily life.</p>
Taught Knowledge & skills	<p>Understand digital footprints and online identity.</p> <p>Explore responsible use of social media and communication tools.</p> <p>Recognise and report inappropriate</p>	<p>Understand GDPR principles and personal data rights.</p> <p>Recognise phishing, scams, and malware.</p> <p>Discuss ethical issues (e.g. AI bias,</p>	<p>Use multimedia tools to create engaging content (e.g. video, audio, infographics).</p> <p>Tailor communication for different audiences and purposes.</p>	<p>Explore topics like e-waste, digital inclusion, and automation.</p> <p>Discuss both positive and negative impacts of emerging technologies.</p> <p>Reflect on personal use of</p>

	content or behaviour.	digital divide, copyright).	Evaluate effectiveness of digital communication.	technology.
Subsequent learning	Confident, respectful digital citizenship. Readiness for independent and safe use of technology in KS4 and beyond.	Ability to make informed decisions about digital behaviour. Strong foundation for digital ethics in future studies or careers.	Confident use of digital tools for presentations and collaboration Preparation for coursework and project-based learning.	Develop critical thinking about technology's role in the world. Readiness for ethical debates and real-world applications in KS4.

ICT – PROGRAMME OF STUDY – KS3 – Information Technology

	1. Understand how hardware and software components interact	2. Use IT to create programs, systems, and content	3. Apply IT tools to solve problems and analyse data	4. Use data structures (e.g. lists, tables, arrays) appropriately
Prior Learning	Basic awareness of what hardware and software are. Experience using devices like tablets, laptops, or desktops.	Experience using basic tools like word processors or presentation software. Exposure to block-based coding (e.g. Scratch).	Basic use of spreadsheets and charts. Understanding of simple data types (text, number).	Experience with tables in documents or spreadsheets. Understanding of rows and columns.
Taught Knowledge & skills	Identify key hardware components (CPU, RAM, storage, input/output devices). Understand the role of operating systems and application software. Explore how software controls hardware (e.g. drivers, firmware).	Use software to create structured content (e.g. websites, databases). Introduction to text-based programming (e.g. Python). Develop simple systems (e.g. quizzes, calculators, data entry forms).	Use spreadsheets to model scenarios and solve problems. Apply formulas and functions (e.g. SUM, AVERAGE). Interpret and present data using graphs and charts.	Create and manipulate lists and tables in code and spreadsheets. Understand arrays in programming (1D and simple 2D). Use data structures to store and retrieve information efficiently.
Subsequent learning	Ability to troubleshoot basic hardware/software issues. Readiness for GCSE Computer Science or IT.	Confidence in using IT creatively and purposefully. Foundation for more complex programming and system design.	Ability to use data to support arguments or decisions. Preparation for data handling in science, geography, and business.	Readiness for structured programming and database design. Improved logical thinking and problem-solving.

