



Computing Curriculum Overview

Year Group	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Reception						
Year 1	iJam <i>Song writing (GarageBand)</i>	iProgram <i>Coding (Blockly)</i>	iAnimate <i>Stop Motion Animation</i>	iCreate <i>Digital Photography</i>	iCommunicate <i>Internet and Digital Device Safety</i>	iTech <i>Technology from 19th-21st Century</i>
Year 2	iJam <i>Song writing (GarageBand)</i>	iProgram <i>Coding (Hopscotch)</i>	iAnimate <i>2D and hand drawn Animation</i>	iCreate <i>Magazine Creation (Strip Designer)</i>	iCommunicate <i>Multimedia Communications</i>	iTech <i>Technology in the Film Industry (Toontastic)</i>
Year 3	iJam <i>Song writing (GarageBand)</i>	iProgram <i>Coding</i>	iOffice <i>E-safety Office 365 programs</i>	iCreate <i>Stop Motion</i>	iCommunicate <i>Podcasting, Blogging, Vlogging and Broadcast Channels</i>	iTech <i>Simulated and External Systems</i>
Year 4	iJam <i>Song writing (GarageBand)</i>	iProgram <i>Coding</i>	iOffice <i>Word Processing</i>	iCreate <i>Editing and Video techniques</i>	iCommunicate <i>Photography and Editing</i>	iTech <i>Simulation apps</i>
Year 5	iJam <i>Song writing (GarageBand)</i>	iProgram <i>Coding</i>	iOffice <i>Spreadsheets</i>	iCreate <i>2D Animation</i>	iCommunicate <i>Advertising: Print, TV and Radio</i>	iTech <i>Analysing, observation and communication</i>
Year 6	iJam <i>Song writing (GarageBand)</i>	iProgram <i>Coding</i>	iOffice <i>Office 365 programs</i>	iCreate <i>Filming, Coding Storyboards, Complex Editing, GIFS, Cinemograph, AR & 3D Drawing</i>	iCommunicate <i>Website Design</i>	iTech <i>Analysing, observation and communication</i>

Year 7 Expectations

Aims

The national curriculum for languages aims to ensure that all pupils:

- 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



Computing Curriculum Overview

Key stage 3:

Pupils should be taught to:

- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
- understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem
- use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions
- understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]
- understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems
- understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits
- undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users
- create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
- understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns