

The aim of our Key Stage 3 curriculum is to deliver a curriculum in line with feeder schools to allow for a smooth reintegration when pupils return to mainstream education. Year 7 and 8 are taught together as numbers remain small so the curriculum is delivered on a two-year rolling programme.

Aligning with the National Curriculum for Computing:

Our Digital Technology curriculum adheres closely to the guidelines outlined in the National Curriculum for Computing.

We focus the three core aspects: computer science, information technology, and digital literacy based on research published in May 2022.

<https://www.gov.uk/government/publications/research-review-series-computing/research-review-series-computing#curriculum>


Computer Science (CS): Our aim is to help pupils with understanding of computer science principles, including algorithms, programming, and computational thinking. Pupils will develop skills in coding languages, Scratch and Python, enabling them to create programs, solve problems, and design innovative solutions.

Information Technology (IT): Pupils are supported to work confidently with information technology. Pupils gain the practical knowledge necessary to use technology effectively. We emphasise termly, the importance of digital privacy, digital security, to ensure our pupils are safe and responsible in their digital world

Digital Literacy (DL): Digital literacy is an essential component of modern education. Our pupils develop the ability to express themselves creatively through digital media, harnessing a range of tools and platforms. They learn to critically evaluate information sources, engage in online communication responsibly, and navigate the digital world with confidence.


Digital Technology Curriculum: Year 7/8 Long Term Plan

Year 1	Theme	Topic	Knowledge
Autumn 1	Digital Literacy	Viruses, Passwords, Digital Footprint	<ul style="list-style-type: none"> Pupils should understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identify and privacy. Pupils should understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identify and privacy. Pupils should understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identify and privacy.
	Information Technology		
Autumn 2	Computer Science	Computer Systems	<ul style="list-style-type: none"> Understand the hardware and software components that make up computer systems and how they communicate with one another and other systems. Understand how instructions are stored and executed within a computer system
	Digital Literacy	Cyberbullying Online Grooming	<ul style="list-style-type: none"> Pupils should understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identify and privacy.
	Information Technology		
	Information Technology	Clear messaging in digital media	<ul style="list-style-type: none"> Use search technologies effectively Use a variety of software to accomplish given goals Collect information Design and create content Present information

Year 1	Theme	Topic	Knowledge
Spring 1	Computer Science	Networks from semaphores to the Internet	<ul style="list-style-type: none"> Defining a network Benefits of networking How data is transmitted across networks using protocols Types of hardware required Wired and wireless data transmission Understanding of 'internet' and 'world wide web' Key services and protocols used
	Digital Literacy	 UK Safer Internet Centre	<ul style="list-style-type: none"> Online Safety Week Update on latest online safety news
Spring 2	Computer Science	Programming essentials in Scratch – part I	<ul style="list-style-type: none"> Build learners' confidence and knowledge of the key programming constructs Programming concepts covered in this unit are sequencing, variables, selection, and count-controlled iteration

Year 1	Theme	Topic	Knowledge
Summer 1	Information Technology	Modelling data using spreadsheets	<ul style="list-style-type: none"> • Identify rows, columns, cell references • Use formatting techniques in a spreadsheet • Use basic formulae • Use functions • Can perform calculations in a spreadsheet • Use a spreadsheet to sort and filter data
Summer 2	Information Technology Digital Literacy	Using media – Gaining support for a cause	<ul style="list-style-type: none"> • develop software formatting skills • Explore concerns surrounding the use of other people's work, including licensing and legal issues

Year 2	Theme	Topic	Knowledge
Autumn 1	Computer Science	Programming essentials in Scratch – part II	<ul style="list-style-type: none"> • It is vital that learners complete 'Programming I' before beginning this unit, recap and adaptation maybe required • Build on pupil's understanding of the control structures' sequence, selection, and iteration • Develop their problem-solving skills • Pupils will learn how to create their own subroutines • Develop their understanding of decomposition • Learn how to create and use lists • Build upon their problem-solving skills by working through a larger project at the end of the unit.
Autumn 2	Information Technology	Media - Vector graphics	<ul style="list-style-type: none"> • design graphics using vector graphic editing software. produced an illustration, a logo, or some icons using vector graphics. • The lessons are tailored to Inkscape (inkscape.org), which is open source and cross-platform, but the resources should be readily adaptable to any vector graphics editor. • Pupils will be able to better understand the processes involved in creating such graphics

Year 2	Theme	Topic	Knowledge
Spring 1	Computer Science	Layers of computing systems	<ul style="list-style-type: none"> Understand the different types of software programs and the operating system Identify the physical components that store and execute these programs How computing systems operate Artificial intelligence Open-source software. The unit assumes no prior knowledge
	Digital Literacy	 UK Safer Internet Centre	<ul style="list-style-type: none"> Online Safety Week Update on latest online safety news
Spring 2	Information Technology	Developing for the Web	<ul style="list-style-type: none"> explore the technologies that make up the internet and World Wide Web Learning how to program using HTML and potentially CSS Investigate how websites are catalogued and organised for effective retrieval using search engines. Create a functioning website (minimum 2 pages)

Year 2	Theme	Topic	Knowledge
Summer 1	Computer Science	Representations – from clay to silicon	<ul style="list-style-type: none"> Count in binary digits Learn how binary is used to represent text and numbers Learn how binary is used to represent images
Summer 2	Computer Science	Introduction to Python programming	<ul style="list-style-type: none"> Introduces pupils to text-based programming with Python Simple programs involving input and output Move on through arithmetic operations Use programs with randomness, selection, and iteration. Tackling common misconceptions A range of pedagogical tools is employed throughout the unit, with the most prominent being live coding, and worked examples.