



	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6
Year 7	<p>Digital Literacy Using Computers -Physical operation of computers; keyboard, mouse -Troubleshooting -Web browsing - Use of the WWW -Email, safe use of -Word processing software -Presentation software</p>	<p>Computer Science Understanding Computers & Data -Hardware: CPU, RAM, monitor, mouse, keyboard, computer storage, graphics card, sound card, speakers, motherboard, CPU Software: Word processing, presentation, graphics, programming -Convergence & new technologies -Input, output devices -Storage devices -Elements of a computer system -The CPU</p>	<p>Digital Literacy Safe use of computers. E-Safety -Social impacts, understanding risks -Recognise inappropriate content -Contact and conduct -How to report concerns. -Cyberbullying, trolling, grooming -Sharing photos, sexting, recording - Exploitation</p>	<p>Information Technology Spreadsheet Modelling -Formatting worksheets -Creating, editing & formatting charts -Conditional formatting -Data organisation, validation, storage -Use of formula -Use of functions; sum, max, min, ave, count -IF statements</p>	<p>Computer Science Computer Programming Binary -Understanding binary -Binary addition Scratch -Define a sequence -Predict outcome: -Modify a sequence -Use sequential instructions -Variables within a sequence -KT: Sequencing, subroutines, instructions, execute</p>	<p>Information Technology Media Editing -Using video editing software to repurpose assets -Create new asset -Edit, split, trim, apply transitions, add effects, edit audio, export -File format</p>
Assessed	Skills	Knowledge	Knowledge	Skills	Skills	Skills
NC Links	3.7 3.9	3.5 3.6	3.9	3.1 3.4	3.1 3.2 3.3 3.43.6	3.73.8
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 4	Topic 5
Y8	<p>Computer Science Networks -Computer networks -Network hardware -Building network topologies -Purpose of mail servers -Internet & the world wide web -Connectivity -Wired & wireless</p>	<p>Digital Literacy Safe use of computers - Threats to data - Malware -Threats to data security, data loss, real left examples. -Dark web -Computer Misuse Act, -Actions to minimise risk</p>	<p>Computer Science Small Basic -Textual programming language -Turtle graphics -For.. End loops -Text window -Using variables -Binary & Ascii</p>	<p>Computer Science Algorithms Logical Thinking -Flow charts -Boolean -Logical thinking -Logic gates -Decomposition</p>	<p>Computer Science Algorithms Logical Thinking cont. -Logical thinking -Logic gates -Algorithmic thinking -Abstraction -Decomposition -Loops</p>	<p>Information technology Database & Spreadsheets -Create a database -Queries -Sort records -Report & Forms including MacOS -Modelling</p>

	-Bandwidth -Protocols, Http, Htps, domain name, url -Internet of Things					
Assessed	Knowledge	Knowledge	Skills		Skills	Skills
NC Links	3.53.6	3.9	3.2 3.3		3.1 3.2 3.3 3.43.6	3.1 3.4

Key Stage 3 Creative Projects					
Year 7	<p>Vector Graphics Adobe Illustrator</p> <ul style="list-style-type: none"> -Understand the difference between vector graphics and bitmap; scalability. -Learn to use Adobe Illustrator to create vector graphics. -Apply appropriate formatting techniques <p>Image size & resolution for different media products</p> <ul style="list-style-type: none"> -Skills: draw shapes, altering shapes, circles, right angled, isosceles triangles, effects, shapebuilder, alignment, zoom in-zoom out, colour palette, stroke, type tool, type on a path, text effects -Exporting & saving <p>Comic Strip using Storyboard That</p> <ul style="list-style-type: none"> -Job roles within the digital media sector -Key features of a traditional comic strip -Create storyboard pre-production document -Techniques for combining planning into comic panels, -Using specific comic creation software to create suitable panel layouts on single and multiple pages to support story flow 	Year 8	<p>Bitmap / Raster Graphics Photopea</p> <ul style="list-style-type: none"> -Recall differences between bitmap / raster graphics and vector -Know what a pixel is, impact of pixelation -Understanding compression; lossy & lossless -Suitability of file formats for specific usage; jpeg, png, giff, pdf -Skills: Removing backgrounds; magic wand, quick selection tool, polygonal lasso tool. Using text tools applying text effects, fonts & colour. Advanced image editing using; clipping mask, clone stamp, spot healing brush, content aware and applying gradient effects to images. -Export and saving 	Year 9	<p>Interactive Digital Media Product</p> <ul style="list-style-type: none"> -Using conventions of interactive digital media when planning user interface layouts -Creating wireframes to plan the content of interactive digital media product -Planning the navigation between pages - Demonstrate an understanding of licensing issues involving online content by applying appropriate Creative Commons licences - Locating and using libraries and stock media, when identifying and selecting pre-made digital media content - Using software tools and techniques to create and repurpose static image assets and techniques to repurpose video assets - Using vector and bitmap images appropriately -Saving and exporting assets as suitable file sizes/ formats for use as components within interactive digital media
Assessed	Skills		Skills		Skills
NC Links	3.73.8		3.73.8		3.73.8

National Curriculum

3.1	<p>design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems</p> <p>Modelling data - Spreadsheets Y7 Modelling data - Database Y8 Small Basic programming Y8</p>	3.2	<p>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</p> <p>Programming in Scratch Y7 Small Basic programming Y8 Algorithms Y8</p>	3.3	<p>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</p> <p>Programming in Scratch Y7 Small Basic programming Y8 Algorithms Y8</p>
3.4	<p>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]</p> <p>Programming in Scratch Y7 Spreadsheet modelling Y7 Small Basic programming Y8 Databases Y8</p>	3.5	<p>understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems</p> <p>Understanding computers Y7 Networks Y8</p>	3.6	<p>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</p> <p>Understanding computers Y7 Programming in Scratch Y7 Networks Y8 Small Basic programming Y8</p>
3.7	<p>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</p> <p>Media editing, comic strip, film Y7 Creating vector graphics, illustrator Y7 Create & repurpose digital artefacts, photopea Y8 Interactive digital media Y9</p>	3.8	<p>create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability</p> <p>Media editing Y7 Creating vector graphics, comic strip Y7 Create & repurpose digital artefacts Y8 Interactive digital media Y9</p>	3.9	<p>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</p> <p>E-Safety Y7 Using computers Y7 Safe use of computers Y8</p>