

Year 9 Computing Curriculum Overview

Year 9		Autumn 1 (7/8 weeks)	Autumn 2 (7 weeks)	Spring 1 (6 weeks)	Spring 2 (5/6 weeks)	Summer 1 (5/6 weeks)	Summer 2 (7 weeks)
	Course topic	Interactive digital multimedia products (IDMP)- Preproduction Documents	Interactive multimedia products IDMP - Project	Text Based Programming - Python Programming Project		AI - Ethics, reliability and bias	
	Additional support links:	Digital Examples (And Techniques to Try) Multimedia - KS3 ICT - BBC Bitesize Recording, sharing and editing video and audio		Intro to Python programming KS3 Procedures in Python - Procedures and functions		What is AI? What does artificial intelligence do? Bias and reliability - Bias and reliability Understanding artificial intelligence ethics and safety - GOV.UK Ethics guidelines for trustworthy AI Shaping Europe's digital future	
	Powerful/ Core Knowledge	Planning an IDMP Understand the client brief: Interpret the requirements and identify the target audience and purpose. Types of interactive media: Know the formats (e.g., websites, apps, games, e-learning tools) and their uses.	Creating an IDMP • Create components: Develop and prepare media assets (e.g., images, audio, video). • Assemble the product: Use appropriate software to build the interactive media product.	• Sequence – putting instructions in the right order to make something happen • Selection – using conditions to control the flow of a program • Iteration - Repetition – the ability to execute a sequence of instructions many times until a certain condition is met		What is artificial intelligence, and how does it differ from traditional computer programming? Can you give an example of how AI is used in everyday life? • Machine learning – how does AI work & challenges • How is intelligence measured • Turing test	



	Content and features: Understand how text, images, video, audio, buttons, and forms are used. User accessibility and GUI design: Learn about accessibility features and effective graphical user interfaces. Pre-production documentation: • Client brief • Mind map • Mood board • Visualisation Diagram • Site map • Storyboards • Legislation: Copyright • Accessibility • Multimedia Features • Export as kiosk	• Technical skills: Apply editing, linking, navigation, and interactivity features. • Exporting: Save the final product in a suitable format with correct properties for the intended platform. Review the Interactive Digital Media Product Evaluate effectiveness: Assess how well the product meets the brief and user needs. Identify improvements: Suggest realistic and relevant enhancements Reflect on the process: Consider what worked well and what could be improved in future projects.	• Named variable – a data store used in a program to store a single value • Data types (string, integer, boolean, real, character) Students will develop an understanding of how to plan and test programs. Know the importance of testing to ensure working solutions have been developed. Key people could include: • Guido van Rossum (b. 1956): The creator of Python® • Bjarne Stroustrup (b. 1950): The creator of C++®	What are some ethical concerns surrounding the use of AI? • <i>AI art – Dalle</i> • <i>Self driving cars - who is responsible if there is an accident</i> • <i>Exams / coursework</i> • <i>Singers / songwriters - Beatles Beatles to release 'final' song with help from AI</i> • <i>Drake https://www.bbc.co.uk/news/entertainment-arts-65309313</i> Implications: Can you think of any industries/jobs that may become obsolete due to the rise of AI? Any further implications – new jobs?
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	How can products we adapted for members of the community with disability or additional needs? E.g. visual impairment Key people/stories could include: Clarence “Skip” Ellis and the creation of icon-based GUI’s			
Skills: Included here are the specific skills your child will learn	Create a brand guideline which appears credible and professional, with sensible guidance and information about the chosen: • Colour scheme • Logo • Font • Sizing • Permissible uses Create buttons, hyperlinks, use of Slide master to add user interactivity KS3 NC: 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	The ability to break down a problem, remove unnecessary details and create logical solutions KS3 NC: 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.	The ability to break down a problem, remove unnecessary details and create logical solutions KS3 NC: 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.	



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