



Year 9 Computing Curriculum Overview

	What will I learn?	How will I learn it?	Why is it important that I learn this?	Why am I learning this now?
Year 9 HT 1	Digital Graphics Students will learn the basics of using Photoshop and Illustrator to create and manipulate digital graphics. They will learn about different image formats and how images can be prepared for print and online use. Students will also use their images to create a comic strip and explore how and why comics are produced.	Teacher-led activities to develop students' skills. Online video tutorials. Practical activity tasks. A simulated client brief where students design and produce a solution using Photoshop, Illustrator and Comic Life.	An opportunity to develop creativity and digital design skills while learning industry-standard software. Students will also develop skills in planning, designing and producing a digital product to meet a brief and deadline.	Students are developing the creative and digital design skills needed for later projects in Computing and Creative iMedia. This provides a foundation for further work with digital graphics, animation and other creative technologies.
Year 9 HT 2	AI & Machine Learning Students will explore what Artificial Intelligence (AI) and Machine Learning (ML) are and how they are used in everyday life. They will investigate how computers can learn from data and experience the machine learning process through	Teacher-led activities and demonstrations. Practical machine learning activities using Teachable Machine. Individual and group tasks. Exploring real-world examples of AI. Discussions about the opportunities, risks and impact of AI.	AI is becoming an increasingly important part of everyday life and the workplace. Understanding how AI works helps students use AI responsibly and critically, while recognising both its benefits and limitations.	Students are already using and encountering AI in everyday life. Learning about AI now gives students the knowledge to understand the technology around them and prepares them for its increasing role in education, employment and society.



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	practical activities, including Teachable Machine. Students will also consider the benefits, limitations and impact of AI on individuals and society			
Year 9 HT 3	Python Programming Students will move from block-based programming to a text-based programming language. They will learn about variables, arithmetic expressions, selection, branching and iteration, and develop their understanding of how programs are structured and executed.	Students will explore the Python programming environment through guided demonstrations and individual practical activities. They will practise programming skills using Python on the school network and Replit, with additional support from NCCE resources.	Programming develops logical thinking, problem-solving and computational thinking skills. Understanding how to write and understand code helps students understand the technology around them and provides valuable skills for future study and employment.	Students have already developed programming concepts through block-based programming. Learning Python now allows them to apply these concepts in a text-based language and gives them a foundation for the programming techniques they may encounter at GCSE.
Year 9 HT 4	Cybersecurity and Data Citizenship Students will learn about common cybersecurity threats and techniques used by cybercriminals to steal data, disrupt systems and gain unauthorised access. They will explore	Teacher presentations and demonstrations. Video-based activities. Individual and group tasks. Online response forms and practical activities to explore cybersecurity threats	Cybersecurity is an important life skill in today's digital world. Students need to understand the threats they may encounter online, how to protect their personal information and their	Students are increasingly using digital services and sharing personal information online. Learning about cybersecurity at this stage helps them make informed and responsible decisions and introduces them to an important area of Computer Science and IT.



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	the value of personal data, social engineering, hacking and other forms of cybercrime, as well as ways to protect themselves and their data.	and ways of staying safe online.	responsibilities as digital citizens.	
Year 9 HT 5	Game Making Students will learn how computer games are designed and developed. They will explore game mechanics, characters, environments, interaction and user experience, and use GameMaker to create their own game. They will also explore how AI can be used in creative applications.	Teacher demonstrations and guided activities. Practical game-development tasks using GameMaker. Students will design, develop, test and improve their own game. Materials from Internet Matters and other online resources will support learning.	Game development combines creativity, problem-solving, programming and computational thinking. Students can develop skills in planning, testing and improving digital products while exploring an exciting area of the creative technology industry.	Students have developed programming and computational thinking skills earlier in KS3. This unit gives them an opportunity to apply these skills creatively and develop a larger digital project. It also provides a useful introduction to skills that can be developed further at GCSE.
Year 9 HT 6	Animation Creation Students will explore how animation is created for films, television, computer games, advertising and other digital media. They will learn the basics of	Teacher demonstrations and guided activities. Practical tasks using Blender and Adobe Animate. Students will experiment with different animation techniques before	Animation combines creativity, technology and problem-solving and is widely used in the creative industries. Students will develop digital design skills while understanding how	Students have already developed skills in digital graphics, programming and game development. Animation allows them to bring these skills together in a creative project and introduces them to another area of the creative technology industry. Students can



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	modelling, texturing and animation using Blender, and explore 2D animation using Adobe Animate. They will create their own 3D models, animations and short videos.	planning, creating and refining their own animation projects.	technology is used to create the media products they see every day.	explore these skills further through Creative iMedia.
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