Djanogly City Academy – Computer Science Curriculum Map

YEAR	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	**Using Media** *How can individuals determine reliable sources to ensure ethical and credible information is used in their work, while also respecting copyright laws?*	**Clear messaging in digital media** *How has digital media transformed the landscape of research and information gathering?*	**Spreadsheet Modelling** *How can spreadsheet modelling be used to analyse complex data, make informed decisions, and solve real-world problems across various industries?*	**Networks** *How has the evolution of computer networks transformed the way we communicate, collaborate, and access information in the digital age?*	**Scratch** *What imaginative and interactive projects can you create using Scratch programming, and how can this visual programming language empower you to bring your ideas to life?*	
8	**Media – Vector Images** *How do vector images offer unique advantages in terms of scalability and resolution, inspiring learners to explore the art of graphic design?*	**Computing Systems** *How do computing systems, consisting of hardware and software components, work together to process and store data, and what role do they play in powering the technology we use every day?*	**Representations** *How do computer representations, transform our thoughts, words, and images into digital form?*	**Developing for the web** *How does HTML, the foundation of web development, enable us to structure and present content on the internet, and what are some creative ways to utilise its features for designing visually appealing and accessible websites?*	**Mobile App Development** *How can mobile app development empower you to design user-friendly interfaces and build practical solutions that cater to the evolving needs of mobile users?*	**Introduction to Python** How can we harness the power of Python programming to unlock endless possibilities and solve real-world challenges?
9	**Cyber Safety** *How can we protect ourselves from online threats and ensure our digital safety in an increasingly connected world?*	**Representations** *How do various representations in computer science, enable us to solve problems and create innovative technologies?*	**Data Science** *How can data science empower us to make better decisions and solve real-world problems in our communities?*	**Animations** *Have you ever imagined bringing your drawings, characters, or stories to life through animation? What would you create and why?*	**Python Programming** *How can Python programming empower us to bring our creative ideas to life and explore new features in developing technologies?*	
10	**Systems Architecture** Architecture of the CPU CPU Performance Embedded Systems	**Memory and Storage** Primary storage Secondary storage Units Data storage Compression	**Networks and Topologies** Networks LAN WAN WWW Internet	**Wired and Wireless Network** WiFi Bluetooth Encryption Protocols	**Threats to Computer Systems and Networks** Malware DOS DDOS Penetration Testing Firewalls	**Operating Systems** Operating systems Utility software Ethical, legal, cultural and environmental impact
11	**Algorithms** Computational Thinking Designing algorithms Searching and sorting algorithms	**Programming fundamentals** Sequence Selection Iteration Variables Data Types	**Programming** Defensive design Testing Boolean Logic Languages IDE	**Revision and exams**		