Curriculum Overview: Computing

Year Group	Content overview Cycle 1	Content overview Cycle 2	Content overview Cycle 3
5	Computer systems and networks - systems and searching (NCCE 5.1) (DL, ET, IT, CS, NW) Creating media – Introduction to Vector graphics (NCCE 5.6) (CM, DD, DI, Et)	Programming A - Selection in physical computing (NCCE 5.3) (CS, DD, PG) Data and information – flat file databases (NCCE 5.4) (DD, DI, ET)	Programming B - Selection in quizzes (NCCE 5.3) (CS, DD, PG)
6	Computing systems and networks - Communication and collaboration (NCCE 6.1) (DL, ET, IT CS, CM) Programming A - Variables in games (NCCE 6.3) (DD, PG)	Data and information - Spreadsheets (NCCE 6.4) (CM, DI, ET, PG) Programming B - Sensing movement (NCCE 6.6) (CS, DD, PG)	Creating media – Web Page creation (NCCE 6.1) (CM, DD, ET, IT, NW, SS)
7	Google drive (PBA) (NW, CM, DI, CS, ET, SS) Clear Messaging in digital media (NCCE 7.1) (CM, DD, ET)	Networks from semaphore to internet (NCCE 7.2) (CM, CS, DD, ET, IT, NW, SS) Modelling data using spreadsheets (NCCE 7.6) (DI, ET, PG)	Programming essential in Scratch – part I (NCCE 7.4) (AL, DD, PG) Programming Essentials in Scratch – part II (NCCE 7.5) (AL, PG)
8	Developing for the web (NCCE 8.1) (AL, CM, CS, DD, DI, ET, NW, PG, SS) Representations from clay to silicon (NCCE 8.2) (CS, DI)	Mobile App development (NCCE 8.3) (AL, DD, ET, PG) Layers of computing systems (NCCE 8.5) (CS, DI, IT, PG)	Introduction to Python Programming (NCCE 8.6) (AL, CS, PG) Media – Vector Graphics (NCCE 8.4) (CM, DD, DI, ET)
9	Delving into data Science (NCCE 9.3) (CM, DD, DI, ET, IT) Representations going audio-visual (NCCE 9.4) (CM, CS, DI, ET, IT)	Python programming with sequences of data (NCCE 9.1) (AL, CS, DD, DI, PG) Applying programming skills with physical computing (NCCE 9.6) (AL, CS, DD, DI, ET, NW, PG)	Introduction to cybersecurity (NCCE 9.5) (CS, DD, DI, ET, IT, NW, PG, SS) Media – Animations (NCCE 9.2) (CM, ET)

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	Abbreviation and Strand NW – Networks - Understand how networks can be used to retrieve and share information, and how they come with associated risks CM – Creating media - Select and create a range of media including text, images, sounds, and video DI – Data and information - Understand how data is stored, organised, and used to represent real-world artefacts and scenarios DD – Design and development- Understand the activities involved in planning, creating, and evaluating computing artefacts CS – Computing systems - Understand what a computer is, and how its constituent parts function together as a whole IT – Impact of technology - Understand how individuals, systems, and society as a whole interact with computer systems AL – Algorithms - Be able to comprehend, design, create, and evaluate algorithms PG- Programming - Create software to allow computers to solve problems ET – Effective use of tools - Use software tools to support computing work SS – Safety and Security - Understand risks when using technology, and how to protect individuals and systems		
		Planned	
10	Boolean Logic, Units, Data representation, computational logic Component 1: User Interfaces, Hardware and Software, Accessibility, Project planning, Design principles	Systems Architecture, Memory, Storage, Wired and Wireless Networks, Network Topologies **Pearson's Set Assignment:** Component 1 - Exploring User Interface Design Principles and Project Planning Techniques	Protocols and Layer, Systems Security, System Software, Ethical Legal Environmental issues Component 2: Data – its collection, traits and threats, Data manipulations and reporting, Trends errors and patterns in data
11	Programming techniques, Producing robust programs, **Pearson's Set Assignment:** Component 2 - Collecting, Presenting and Interpreting Data	Programming Project: Analysis, Design, development, testing and evaluation Component 3: Modern Technology, Cyber Security, Wider implications of digital systems, Planning and Communicating in Digital Systems	REVISE and Exam Period REVISE and Exam Period
	Key KS4 GCSE Computer Science BTEC Digital Information Technology (Level 1/2)		