

Computing/Computer Science

Year	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
7	Intro to ICT and SGHS Systems Binary & Data Representation	Boolean logic & Logic Gates Bebras Computational Thinking Competition	Website Design An introduction to Dreamweaver	Fundamentals of computer systems. What's inside a computer? Hardware and Software	A History of Computing	Micro: bits coding and projects
8	Flowol - An introduction to flowcharts and algorithms	Spreadsheet Modelling Bebras Computational Thinking Competition (2 weeks)	Spreadsheet Modelling Encryption/decryption, cyber security, networking and coding (in preparation for GCHQ Competition)	Python Programming GCHQ Cyber First Competition(2 weeks)	Python Programming	Ethics and Computing Law
9	Advanced Python – Using Turtle to create a GUI	Advanced Python – Using Turtle to create a GUI Bebras Computational Thinking Competition (2 weeks)	An introduction to Photoshop Using Fireworks to Create GIFSs	An introduction to Photoshop	HTML CSS and JavaScript Web Development	HTML CSS and JavaScript Web Development
10	Systems Architecture (Unit 1) Algorithms (Unit 2)	Memory (Unit 1) Programming Techniques (Unit 2)	Storage (Unit 1) Programming Techniques (Unit 2)	Wired and Wireless Networks (Unit 1) Programming Project (NEA)	Wired and Wireless Networks (Unit 1) Programming Project (NEA)	Network Topologies (Unit 1) Producing robust programs (Unit 2)

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11	<p>Protocols and Layers (Unit 1)</p> <p>Computational Logic (Unit 2)</p>	<p>Systems Security (Unit 1)</p> <p>Translators and Facilitators of languages (Unit 2)</p>	<p>Systems Software (Unit 1)</p> <p>Data Representation (Unit 2)</p>	<p>1.8 Ethics, Legal, Cultural and Environmental concerns (Unit 1)</p> <p>Revision</p>	Revision / Exams	Revision / Exams
12	<p>The characteristics of contemporary processors, inputs, outputs and storage devices (Unit 1)</p> <p>1 lesson per week on NEA project – upskilling in programming learning GUI development and exploration of languages</p>	<p>Exchanging Data (Unit 1)</p> <p>1 lesson per week on NEA project – upskilling in programming learning GUI development and exploration of languages</p>	<p>Exchanging Data (Unit 1)</p> <p>1 lesson per week on NEA project – to finalise project idea and begin the analysis</p>	<p>Elements of Computational Thinking (Unit 2)</p> <p>1 lesson per week on NEA project – to finalise analysis</p>	<p>Software and Software Development (Unit 1)</p> <p>1 lesson per week on NEA project – to start the design</p>	<p>Software and Software Development (Unit 1)</p> <p>1 lesson per week on NEA project – to finalise the design</p>
13	<p>Data Types, Data Structures and algorithms (Unit 1)</p> <p>1 lesson per week on NEA project – to start the implementation</p>	<p>Data Types, Data Structures and algorithms (Unit 1)</p> <p>1 lesson per week on NEA project – to finalise the implementation</p>	<p>Computational Methods (Unit 2)</p> <p>1 lesson per week on NEA project – to complete testing and evaluation</p>	<p>Algorithms (Unit 2)</p> <p>1 lesson per week on NEA project – final submission</p>	<p>Legal, moral, cultural and ethical issues (Unit 1)</p> <p>Revision/Exams</p>	Revision/Exams