Welland Park Academy

Computer Science Curriculum Map

		Autumn 1	Autumn 2	Spring 1	Spring 2		Summer 1	Summer 2
Year 11	Focus:	Programming 2B re-visited	5 Networks	6 Cyber Security	7 Data-bases	8 Ethical and legal	Exam prep	
	Assessment:	Portfolio of programs	End of Unit Tests	End of unit test	End of unit tests		Past papers	

SMSC: Use of peer programming and team work when learning to code. Looking at cyber security and cyber-crime, the impact of technology on society and the ethical issues associated with the use of technology.
CEIAG: Develop analytical and problem solving skills during the Algorithms and Programming units. Insight into elements of the "tech industry" and the range of roles for employment. Completion of programming projects highlighting a structured approach to problem solving and solution development.
Enrichment: Case studies for cybercrime. Advanced coding club on Thursdays 3.20 – 4.20 using advanced coding techniques and additional hardware such as Lego robotics.
British Values: Legal and moral issues relating to the use of technology. The importance of health and safety. Aspects of cybercrime and the role of white-hat hacking to test systems.

Year 10	Focus:	1 Algorithms	2 Programming A	3 Data Representation	Revision	4 Computer Systems	Python programming revisited
	Assessment:	End of unit test	End of unit test	End of unit test	Mock Examination (Paper 1 – edited)	End of unit test	Practical Python tasks (NEA over the summer

CEIAG: Develop analytical and problem solving skills during the Algorithms and Programming units. Insight into elements of the "tech industry" and the range of roles for employment. Completion of programming projects highlighting a structured approach to problem solving and solution development.
SMSC: Use of peer programming and team work when learning to code. Looking at cyber security and cyber-crime, the impact of technology on society and the ethical issues associated with the use of technology.
Enrichment: Case studies for cybercrime. Advanced coding club on Thursdays 3.20 – 4.20 using advanced coding techniques and additional hardware such as Lego robotics.
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Year 9	Focus:	Computational Thinking and Logic (PG Online)	Python Programming	Creating a magazine	Cyber Security **Introduction to Cyber Security 9.5**		Game Creation – From concept to game
	Assessment:	End of Unit assessment	Portfolio/blog	Development work and Completed magazine			Completed project
	SMSC: Use of peer programming and team work when learning higher level coding. Making real life decisions during project work looking at finances CEIAG: Develop analytical and problem solving skills during the Python Programming unit. Develop creative skills using extended project unit Enrichment: Use of online activities to move teaching and learning away from a teacher lead experience. Code Club for KS3 runs on Wednesdays from 3.20 to 4.20. British Values: Students develop resilience and independence but also the importance of team work and supporting peers during the problem solving and coding aspects of the course. Using the Internet and social media responsibly and safely when gathering resources.						
Year 8	Focus:	(8.1) Scratch Maths Quiz – coding with scratch, use of variables Scratch coding	Sports Shop – business identity, logo, animation, 3D modelling		(8.3) Networks	(8.4) Eco-watch – comic strip	(8.5) Python Programming **NCCE – Introduction to Python Programming 8.6** Plus PG Online
	Assessment:	Portfolio	Portfolio Portfolio		Summative Assessment	Comic Strip	Portfolio/blog
	SMSC: Use of peer programming and team work when learning higher level coding. Making real life decisions during project work looking at finances CEIAG: Continued development of essential ICT skills to engage with further study and the world of work. Problem solving skills extended to include larger and more complex problems. Real world scenarios used in extended project work. Enrichment: Use of online activities to move teaching and learning away from a teacher lead experience. Code Club for KS3 runs on Wednesdays from 3.20 to 4.20. British Values: Students develop resilience and independence but also the importance of team work and supporting peers during the problem solving and coding aspects of the course. Using the Internet and social media responsibly and safely when gathering resources.						
Year 7	Focus: CS	(7.6) Think Like a Computer Scientist – Computational thinking, flow diagrams, data rep, vector drawings with Scratch	Think Like a Computer Scientist –	(7.7) Modelling data with spreadsheets **NCCE 7.4**	(7.8a) Scratch Programming **NCCE Scratch 1 (7.3)** + PG Online	(7.9) Kodu Coding	(7.8b) Computer Game Development – with Scratch and Codementum/Codeclub **NCCE Scratch 2 (7.5)** + PG Online
	Assessment:		End of unit assessment	Practical activity	Summative Assessment	Peer assessment and Portfolio	End of unit assessment
Year 7	Focus: ICT	(7.1) Digital Literacy – Using the WPA network, Searching the Internet Presenting info – **NCCE "Clear messaging in Digital Media" 7.1**	(7.2) Online-safety E-Safety Privacy and your data Copyright and your work		(7.3) Understanding Computers – Hardware and software, binary, storage, future tech Understanding Computers –Hardware and software, binary, storage, future tech	(7.4) Graphics Unit	(7.5) Using Media – Gaining support for a cause **NCCE 7.6**
	Assessment:	End of unit assessment	End of unit assessment		End of unit assessment	Film poster – skills Audit	End of unit assessment
	SMSC: Teamwork / Peer Assessment / Misuse of Computers and Copyright Law / Displays Promote Diversity / Data Protection / Ecological Impacts of Computing and Ethical Issues concerning emerging technologies such as AI and Automation. CEIAG: Development of essential ICT skills to engage with further study, the world of work and living in the information age. Cyber-security / esafety / finance management. Developing problem solving skills and methods of showing solutions. Enrichment: Use of online activities to move teaching and learning away from a teacher lead experience. Code Club for KS3 runs on Wednesdays from 3.20 to 4.20. British Values: Students develop resilience and independence but also the importance of team work and supporting peers during the problem solving and coding aspects of the course. Using the Internet and social media responsibly and fairly is covered in the Internet Safety unit.						

Computational Thinking	Digital Citizenship	Coding	Digital Literacy	Information Science
Technology in our lives	Staying safe online: e-safety	Programming	Creative Media	Data Handling