



# Curriculum Plan (Year 10 Computer Science)

Year 10 GCSE Computer Science	Knowledge <i>(Topics covered, NC links)</i>	Key assessments	Subject Skills	Literacy and Numeracy opportunities	School values	Extra-curricular opportunities	Personal development <i>(SMSC, Fundamental British values, Careers guidance, healthy living, Citizenship, equality and diversity, financial capability, preparation for next stage)</i>
Term 1	Algorithms Python programming Data representation Translators and facilities of languages Memory Storage Systems architecture Systems software	Assessment 1 - End of topic (2.1) Assessment 2 - End of topic (2.5,2.6)	Programming techniques, Memory recall, exam question writing, calculations and algorithmic thinking	Exam technique and key words. Syntax for programming. Calculations for algorithm outputs, logic and conversions between number systems	Resilience – to keep on going when the programming isn't working as required Aspiration – Be creative in your programming and development of new algorithms	Codecademy website to develop programming  Problem solving in day to day life	Develop an understanding on how to problem solve. Creating a diverse knowledge in computing to help with future careers involving technology
Term 2	Computational logic Wired and wireless networks Network topologies, protocols and layer System security	Assessment 3 - End of topic (1.1, 1.2, 1.3, 1.7, 2.4) Assessment 4 - End of topic (1.4, 1.5) Assessment 5 - End of topic (1.6)	Memory recall, exam question writing, calculations, definition retention, diagram recognition and creation, extended answer practice	Exam technique and key words. Extended answer practice and development. Annotation and note taking application. Calculation of capacities. Logical ordering	Excellence- Learning new topics with an open mind to new information and techniques Community – to develop group work on topologies and networking tasks	Opportunity to get involved with the StudyWith website to learn and practice website development	Understand how the internet actually works. Develop an understand on how different devices connect to each other to form networks and links to transfer data like websites and emails, linking to lots of real life examples.



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Term 3	Ethical, legal, cultural and environmental concerns Python programming Exam writing practice	June Mock papers 1 and 2	Ethical extended answer development, programming techniques, algorithmic development and analysing, Practice paper techniques	Exam writing skills. Question analysis development Logical mathematics Algorithmic calculations	Community – debating hot topics in computing and technology based scenarios Resilience – to tackle all questions in each assessment and mock papers	Keeping up to date on news articles and stories around technology to develop a range of examples to help with ethical questions	Seeing how technology is having an effect on the current climate and culture in the UK and the World. Applying their knowledge on technology to help devise ways that could be put into place to help support the environment and culture of the UK and the World.
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