Year 10 Computer Science Curriculum Plan

	Key concept/ Key question	Overview of the unit	Assessment	Cross Curricular Skills	Suggested reading material and websites:
	Programming skills	Analysis of a problem to write success criteria Designing a solution using flowcharts and pseudocode Testing a program with a formal test plan How to use lists and arrays How to write to a file, and read from a file How to use functions Search and sorting algorithms	Practice projects written in python. Written tests	Logic and reasoning	www.codeacademy.org The MOOC (students have access to this)
	Binary representation	Converting numbers between denary and binary (recap from year 9) Converting numbers between denary and hex Using binary to represent images, sound, numbers and text (recap for year 9)	Written tests	Mathematical skills – number bases.	The MOOC (students have access to this)
	1.7 System software	The purpose and functionality of systems software, operating systems, user interfaces, memory management and file management. Utility software: examples of and uses for.	Written tests	Written and verbal communication skills	The MOOC (students have access to this)
	1.6 system security	Forms of network attack and threats posed to networks. Identifying and preventing vulnerabilities.	Written tests	Written and verbal communication skills	The MOOC (students have access to this)
	1.8 Legal, ethical, environment	How to investigate and discuss Computer Science technologies while considering ethical, legal, cultural, environmental and privacy issues. The laws surrounding computing.	Written tests	Written and verbal communication skills. Constructing longer style written answers	The MOOC (students have access to this) BBC "Click" series in the technology section of the main website.