



Key Stage 4 Essential Digital Skills Qualification (EDSQ) and G.C.S.E Computer Science Curriculum Overview

- All Key Stage 4 students will all complete the Essential Digital Skills curriculum as a Core subject and will be offered the opportunity to gain the EDSQ Functional Skills Qualification.
- Students will also have the opportunity to engage in additional study to complete the requirements for the GCSE Computer Science taking the GCSE exam in the Summer term of yr11.

Essential Digital Skills Qualification (EDSQ)						
Year/Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1 45 hours	Using Devices and Handling Information	Creating and Editing	Communicating	Transacting	Being Safe and Responsible Online	Task Based Assignment & Questions

G.C.S.E Computing						
Year/ Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Introduction to programming	String manipulation, string methods	One-dimensional lists for loops, range function	string format ()	Merge sort	Turtle introduction, pens, and lines
	Decomposition, algorithms	if, if else, relational operators	Procedures	Two-dimensional lists	Reading files	Turtle movement, coordinates, polygons,
	Data types, variables	if, if else, readability	Functions	Validation	String processing	Turtle pens, colours, filling, and circle
	Input and integer functions, debugging tools	Boolean operators	Subprogram-s	Linear search (one-dimensional)	Writing files	Turtle combining subprograms, layers
	Flowcharts	Repetition (while)	Assessment 1	Linear search (two-dimensional)	Authentication	Turtle big problem
	Assessment 1	Assessment 1	Stored program concept	Assessment 1	Malware & anti-malware	Assessment 1
	Course introduction	Two's complement 2	Fetch-decode-execute 1	Operating system	Hackers	LANs & WANs
	Binary	Logical binary shifts	Fetch-decode-execute 2	OS: File management	Social engineering	Networks speed
	Unsigned integers	Arithmetic binary shifts	Secondary storage 1	OS: Process management	Data level protection	Connectivity
	Binary arithmetic	Hexadecimal	Secondary storage 2	OS: Peripheral & user management	Robust software	Wired v. wireless
	Two's complement 1	ASCII	Assessment 2	Utility software	Assessment 2	Network topologies
	Assessment 2	Assessment 2		Assessment 2		Assessment 2

Year/ Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	Intro to programming Subprograms Local, global Maths, time Problem solving Assessment Embedded systems The Internet of Things Packet switching TCP/IP 1 TCP/IP 2 Assessment	Trace tables Errors Bubble sort Binary search Problem solving Assessment Environmental impact: manufacture & use Environmental impact: e-waste Low-level & high-level languages Translators Intellectual Property Assessment	Data types, string manipulation, validation Data structures (one-dimensional) Trace tables Errors Problem solving Assessment Bitmaps Bitmaps Sound Sound Compression Assessment	Data structures (two-dimensional) Subprograms (local, global, procedures, functions) Problem solving Trace tables, errors Problem solving, testing with data Assessment AI, machine learning & robotics 1 AI, machine learning & robotics 2 Personal data Privacy & ownership Data protection legislation Assessment		Revision And Exams