Computing KS3 Curriculum Map

Year 7			Year 8		
Module	**Subject content aim (1-9)**	**Topic**	**Module**	**Subject content aim (1-9)**	**Topic**
M1	1	Intro to Computing at HA	M1	1,5,6,9	Computer Systems/ Understanding computers
M2	1,9	Computer Crime	M2	1,4,9	Networks
M3	1,5,7,8,9	Comp Crime and Building a Computer	M3	1,4,6,9	Networks and Encryption
M4	1,5,8	Building and Computer and Flowol	M4	1,2,6,9	Encryption and Binary
M5	3,4,6,8	Flowol and Python	M5	1,2,5,6	Binary and Spreadsheets
M6	3,5,6,7,8	Python & Graphics	M6	1,2,5	Spreadsheets and Databases
M7	3,6,7,8	Microbit	M7	1,2,5	Databases

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Year 7 Curriculum Overview

Module	Topic	Content Covered	NC Aim	Assessment
M1	Intro to Computing at HA	HA computer system, Logging on, file set, logging on to HA email, sending, replying and attaching documents to emails, learning how to keep passwords strong and safe	4	Socrative Assessment on M1 content
M2	Computer Crime	Learning S.M.A.R.T, email scams, phishing, Trojan horse hacking, piracy, computer misuse act, viruses, logic bomb copyright, plagiarism, copyright act, health and safety around computer systems	4	Socrative Assessment on M1/2 content
M3	Comp Crime & Building a Computer	Copyright act, health and safety around computer systems and then to move on to Learning about internal and external parts of a computer, how computers are put together, specifications of parts.	2,3	Socrative Assessment on M2/3 content
M4	Building and Computer & Flowol	Learning how to recommend a system to a given scenario and working within a budget to build a PC. Then Learning about algorithms, instructions, flowcharts and making flowcharts to make a scenario work correctly.	2,3,4	Mid-Year Assessment on M1, M2, M3 and some of M4 content
M5	Flowol & Python	Further learning on algorithms, basic python programming, print statements inputs, variables, IF/ELIF/Else statements.	1,2	Socrative Assessment on M4/5 content
M6	Graphics	Learning Photoshop, manipulating images, creating new images, learning how different tools work within Photoshop	4	Socrative Assessment on M5/6 content
M7	Microbit	Learning about algorithms by putting instructions together using block coding methods	1,2,3	End of year paper on all content covered

Year 8 Curriculum Overview

Module	Topic	Content Covered	NC Aim	Assessment
M1	Computer Systems/ Understanding computers	Learning input, output, storage devices, peripherals, components, computer hardware, RAM, ROM, CPU, emerging technologies, robotics, VR, AI and biometrics.	3,4	Socrative Assessment on M1 content
M2	Networks	Understanding the internet, URL's, Domain names, Data packets/packet switching, connectivity and Network topologies	1, 3,4	Socrative Assessment on M1/2 content
M3	Networks and Encryption	Client server networks, peer to peer networks. Moving on to encryption learning about ciphers, encrypting data and Caesar cipher	1,2,3	Socrative Assessment on M2/3 content
M4	Encryption and Binary	Continuing encryption with hieroglyphics, Morse code, process of encryption and why data is encrypted. Moving on to Binary and learning what us meant by binary and denary and converting from binary to denary	1,2,3,4	Mid-Year Assessment on M1, M2, M3 and some of M4 content
M5	Binary and Spreadsheets	Continuing binary by learning converting denary to binary, hexadecimal and ASCII tables. Moving on to Spreadsheets, understanding computer models, cell referencing, formulas/functions & what if scenarios	1,3,4	Socrative Assessment on M4/5 content
M6	Spreadsheets and Databases	Continuing spreadsheets with financial modelling, IF functions, conditional formatting, data validation and charts and graphs. Moving on to databases, paper-based VS computerised, field, file, records, importing records	3,4	Socrative Assessment on M5/6 content

M7	Databases	Creating Murder Mystery database (similar to cluedo). Students will put all skills to use to create their databases.	3,4	End of year paper on all content covered

KS3 Curriculum – Lesson Overview

Year 7			Year 8		
Module	**Topic**	**Lesson**	**Module**	**Topic**	**Lesson**
M1	Intro to Computing at HA	• Lesson 1 – Intro to Computing at HA • Lesson 2 - Intro to Computing at HA • Lesson 3 – Email Etiquette • Lesson 4 – Black History Month Project • Lesson 5 – BHM Project	**M1**	Computer Systems/ Understanding computers	• Lesson 1 – Input, Output & storage • Lesson 2 – Computer Hardware • Lesson 3 – Computer software • Lesson 4 – The CPU • Lesson 5 – Emerging Technologies
M2	Computer Crime	• Lesson 1 – E-Safety & Email Scams • Lesson 2 - Hacking • Lesson 3 – Copyright/Plagiarism • Lesson 4 – Health & Safety • Lesson 5 – Project	**M2**	Networks	• Lesson 1 – Module 1 Assessment • Lesson 2 – Emerging Technologies Project • Lesson 3 – Domains, IP addresses & Data packets • Lesson 4 – Connectivity • Lesson 5 – Topologies
M3	Comp Crime & Building a Computer	• Lesson 1 – Computer Crime Assessment	**M3**	Networks and Encryption	• Lesson 1 – Client server/Peer to Peer

		• Lesson 2 – Computer Crime Overview & Project presentations • Lesson 3 – What is a computer? • Lesson 4 – Components of a computer • Lesson 5 – Building a computer project • Lesson 6 – Building a computer project			• Lesson 2 – Module 2 Assessment • Lesson 3 – Cryptography • Lesson 4 – Caesar Cipher • Lesson 5 – Enigma machine
M4	Building and Computer & Flowol	• Lesson 1 – Building a Computer Assessment • Lesson 2 – Project Presentations • Lesson 3 – • Lesson 4 – • Lesson 5 –	**M4**	Encryption and Binary	• Lesson 1 – • Lesson 2 – • Lesson 3 – • Lesson 4 – • Lesson 5 –
M5	Flowol & Python	• Lesson 1 – • Lesson 2 - • Lesson 3 – • Lesson 4 – • Lesson 5 –	**M5**	Binary and Spreadsheets	• Lesson 1 – • Lesson 2 – • Lesson 3 – • Lesson 4 – • Lesson 5 –
M6	Graphics	• Lesson 1 – • Lesson 2 -	**M6**	Spreadsheets and Databases	• Lesson 1 – • Lesson 2 –

		• Lesson 3 – • Lesson 4 – • Lesson 5 –			• Lesson 3 – • Lesson 4 – • Lesson 5 –
M7	Microbit	• Lesson 1 – • Lesson 2 – • Lesson 3 – • Lesson 4 – • Lesson 5 –	**M7**	Databases	• Lesson 1 – • Lesson 2 – • Lesson 3 – • Lesson 4 – • Lesson 5 –

The KS3 curriculum is set to give students a varied computing experience with the intent to raise awareness and interest in Computer Science at both GCSE and A-Level.
KS3 is a combination of ICT and Computer Science topics so falls in to the “Computing” category as a subject