Key Stage 3 Computing Scheme of work.
FOR MORE DETAILS AND RESOURCES PLEASE SEE GOOGLE CLASSROOM (ALL LESSONS MUST BE POSTED THERE)

Year 7 SOW				
Lesson	**Unit**	**Content**	**Resources**	**Possible Homework**
1	**Topic 1:** Getting started: Network and emails	Logging in, Folders, Google Classroom, Email	Network and Emails Booklet Network and emails PPT 1 and 2	Send an email
2		Baseline Test		
3		Network and Emails		
4	**Topic 2:** Binary	Introduction	Binary Booklet Cisco Binary Game Binary online Test 1-10 Help Sheet Bitmap Activity	10 binary tests online for hwk or in class. Must be copied over.
5		Binary Conversion		
6		Binary Graphics		
7		Binary Addition		
8		Binary revision and assessment		
	Bebras Challenge	One off lesson where students compete in an online competition	Student logins Link to website	
9	**Topic 3:** Python (Chatbot)	Intro to programming: Print and Input	Two online chatbots Teach programming lesson plan 4 lesson PowerPoints On computer assessment Revision PPT (3 Topics)	
10		Variables and calculations		
11		Data types and comments		
12		Maths quiz and If Statements		Revision
13		Python Assessment		
Possible Christmas lessons include PPT Advent calendars				
14	**Topic 4:** DTP (System lifecycle)	Intro to DVD cover project	DTP Booklet DVD.dpp template DVD.pub template Empty DVD covers	
15		Research DVD covers		Sketch DVD Cover
16		Begin Implementation (Serif)		
17		Implementation (Import to Publisher)		
18		Continue Implementation		Finish DVD Cover
19		Barcodes		
20		Feedback and review		
Possible lesson on Safer Internet week				
21	**Topic 5:** Spreadsheets	Introduction to formulas	Spreadsheet booklets Excel spreadsheets Lesson PowerPoints	
22		Formatting a spreadsheet		
23		Spreadsheet functions		

24		Sort, filter and comparison operators	Revision PPT (3 Topics)	
25		Graphs		Revision
26		Modelling and assessment (If no year 7 exam)		
	Year 7 Exam	Will usually be around this time.		
27	**Topic 6: Scratch Programming**	Intro to scratch and sprite movement	Scratch Booklet Scratch PowerPoints	
28		Loops and drawing shapes		Scratch HW 1
29		Flowcharts and selection constructs		
30		More flowcharts and broadcast		Scratch HW 2
31		Creating a simple game (Keep the ball up)		
32		Creating a game (Helicopter)		
33+	There are further scratch lessons to use if necessary.			

Year 8 SOW				
Lesson	**Unit**	**Content**	**Resources**	**Possible Homework**
1	**Topic 1: Boolean Logic**	Folders, intro to Boolean logic	Boolean logic booklet Boolean Logic PowerPoint Logic Gate website	
2		Combining logic		Boolean practice
3		Revision and Assessment		
4	**Topic 2: Technology**	Hardware	Technology Booklet Technology PowerPoints 1-4	
5		Software		
6		History of computing		
7		The internet		
8		Assessment		
	Bebras Challenge	One off lesson where students compete in an online competition	Student logins Link to website	

9	**Topic 3: Python**	Print, input, placeholders and arithmetic operators	CAS Python PowerPoints 1-6 Python Booklet Lesson plans	
10		Variables, data types and int		HW sheet 1
11		If statements in Python 1		
12		If statements in Python 2		HW Sheet 2
13		The random number function		
14		Loops in Python		
15		Assessment		
Lesson or two on Safer Internet week: Google Forms			
16	**Topic 4: Databases**	Datatypes and setting up a database	Database PowerPoints (Faircop) Database Booklet	
17		Sorting and queries 1		
18		Sorting and queries 2		Paper based queries
19		Relational databases and reports		
20		Forms and murder mystery		
21		Assessment		
22	**Topic 5: Searching and sorting algorithms**	Searching: Linear/Binary	Searching and sorting PowerPoint	
23		Sorting: Bubble/Merge		
Year 8 Exam usually around here				
24	**Topic 6: Websites and HTML**	HTML 1	Website Booklet Website PowerPoint HTML Instruction Booklet	
25		HTML 2		
26		Country research		Additional research
27		Website Banner (Optional Lesson)		
28		Creating site pages, editing the master page and adding banner in Serif WebPlus		Work on/Finish website
29		Navigation bar and home page		
30		Develop website		
31		Embedded images, finish and publish		
32+	Show students additional website features			

Lesson	Unit	Content	Resources	Possible Homework
Year 9 SOW				
1	**Topic 1:** The Bigger Picture	Getting started and file types	TBC	
2		Laws: Copyright, GDPR, CMA		
3		Environmental Issues and impact		
4	**Topic 2:** Networks and the internet	Network Topologies	Network PPT 1-4 Worksheets	
5		Components of a network		
6		Malware		Revision
7		Network Security 1		
8		**Assessment 1**		
	Bebras Challenge	One off lesson where students compete in an online competition	Student logins Link to website	
9	**Topic 3:** Python Programming 2	Recap of Python Basics	CAS PPT 1-6 CAS worksheets Virtual Machine/IDLE	
10		Warm up: Selection and lists		L2 HW
11		Modifying lists		
12		While Loops		L4 HW
13		For Loops		
14		Putting it all together		
15		**Assessment 2**		
16	**Topic 4:** Computer hardware	Hardware Components: CPU, RAM etc	Hardware PPT 1-3 Worksheets	
17		Fetch, decode, execute Cycle		
18		Storage devices		Revision
Possible lesson on year 9 options				
19	**Topic 5:** Cybersecurity	You and your data: Data	CAS PPT 1-6 CAS worksheets	
20		Social Engineering		
21		Rise of the bots: Recap malware		
22		Binary Mosaic: Pixels and resolution	CAS PPT 1-6	L1 HW

23	**Topic 6:** Representation of data (Images)	Bitmap Images	CAS worksheets Audacity/GIMP L5/6 may require headphones	L2 HW
24		A splash of colour: Bit depth, colours, file sizes		
25		Collage: Image editing software		
26-27	**Topic 7:** Useful ICT skills for GCSE	Word Processing 1 (Changing Places)	Airline Example Functional skills worksheets	
27-28		Word Processing 2 (Pepperpot Bistro)		
29-33		**Assessment 3: Presentation software (Airline Task)**		
34+		Spreadsheets		