KS3 Curriculum - Computing

Year		KAP 1	KAP 2	KAP 3

| School Week | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Oct Half Term | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 | Christmas Break | Christmas Break | Week 16 | Week 17 | Week 18 | Week 19 | Week 20 | Week 21 | Feb Half Term | Week 22 | Week 23 | Week 24 | Week 25 | Week 26 | Week 27 | Week 28 | Easter Break | Easter Break | Week 29 | Week 30 | Week 31 | Week 32 | May Half Term | Week 33 | Week 34 | Week 35 | Week 36 | Week 37 | Week 38 | Week 39 | Summer Break | Summer Break | Summer Break | Summer Break | Summer Break | Summer Break |

| Half Term | 1 | 2 | 3 | 4 | 5 | 6 |
| Month | September | October | November | December | January | February | March | April | May | June | July | August |

Year 7 Curriculum	Intro	Unit 7.1 E-Safety	Unit 7.2 Computer Basics	Unit 7.3 Scratch Programming	Unit 7.4 Binary Basics	Unit 7.5 Using Media	Contingency - Unit 7.6 Microbits
Year 8 Curriculum	Unit 8.1 Algorithms	Unit 8.2 Grand Designs	Unit 8.3 Spreadsheets	Unit 8.4 App Design	Unit 8.5 Cryptography	Contingency - Unit 8.6 Modern Technologies
Year 9 Curriculum	Unit 9.1 Textual Programming	Unit 9.2 Graphics	Unit 9.3 Networks	Unit 9.4 Web Develop	Unit 9.5 Data Representation	Contingency - Unit 9.6 Animation

	Year 7				Scheme of Work				
	Unit Name	**Lesson 1**	**Lesson 2**	**Lesson 3**	**Lesson 4**	**Lesson 5**	**Lesson 6**	**Lesson 7**	**Lesson 8**	**Lesson 9**
INT	**Intro to The Link School Network**	Logging on / Folders / Health + Safety	SMH / Emails							
7.1	**E-Safety**	Communication Methods G - O -	Staying safe on Social Networks G - O -	Cyber Bullying G - O -	Malware and Security G - O -	Test	Fix it / Green for Growth			
7.2	**Computer Basics**	Hardware & Software G - O -	Input & Output G - O -	Inside a Computer G - O -	Memory & Storage G - O -	Types of Computer G - O -	Test	Fix it / Green for Growth		
7.3	**Scratch Programming**	Creating Sprites / Costumes G - O -	Background / Moving Sprites G - O -	Variables G - O -	Game Development G - O -	Levels / Broadcast G - O -	Game Development G - O -	Game Development G - O -	Fix it / Green for Growth	
7.4	**Binary Basics**	Logic Gates G - O -	Binary Numbers G - O -	Hexadecimal Numbers G - O -	Binary Addition / Characters G - O -	Test	Fix it / Green for Growth			
7.5	**Using Media**	Features of a Word Processor G - O -	Licensing appropriate images G - O -	Credibility of sources G - O -	Research and plan a blog G - O -	Promoting you cause G - O -	Project completion and assessment G - O -	Fix it / Green for Growth G - O -		
Contingency7.6	**Microbits**	Introduction to Microbits G - O -	Beginner Tutorials G - O -	Advanced Tutorials G - O -	Maker Tutorials G - O -					

	Year 8	Scheme of Work							
	Unit Name	**Lesson 1**	**Lesson 2**	**Lesson 3**	**Lesson 4**	**Lesson 5**	**Lesson 6**	**Lesson 7**	**Lesson 8**	**Lesson 9**
8.1	**Algorithms**	Programming Concepts G - O -	Flowcharts G - O -	Searching Algorithms G - O -	Sorting Algorithms G - O -	Test	Fix it / Green for Growth			
8.2	**Grand Designs**	Introduction to Sketch up G - O -	Creating the House G - O -	Creating the House G - O -	Creating the House G - O -	Leaflet Design G - O -	Leaflet Design G - O -	Leaflet Design G - O -	Fix it / Green for Growth	
8.3	**Spreadsheets**	Getting to know a spreadsheet G - O -	Quick Calculations G - O -	Collecting Data G - O -	Become a Data Master G - O -	Level up your skills G - O -	Assessment			
8.4	**App Design**	App for that G - O -	Tappy Tap App G - O -	School Lab Studios G - O -	User Input G - O -	App Development G - O -	Project Assessment	Fix it / Green for Growth		
8.5	**Cryptography**	Introduction to Encryption G - O -	Alan Turing & Enigma G - O -	Caesar Cipher G - O -	Vigenere Cipher G - O -	Test	Fix it / Green for Growth			
Contingency 8.6	**Modern Technologies**	GPS G - O -	Artificial Intelligence G - O -	Data Science 1 G - O -	Data Science 2 G - O -	Hacking G - O -				

	Year 9	Scheme of Work								
	Unit Name	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Lesson 7	Lesson 8	Lesson 9	Lesson 10
9.1	Small Basic	Introduction to Small Basic G - Identify the main features of the Development Environment and write a simple program O - Adapt a simple program by adding new lines of code.	Variables G - Identify a variable in a program and describe what they do O - Create a program using variables and arithmetic operators	Selection (If / Else) G - Describe how an If/Else statement works and use in a program O - Use an Elseif statement to add selection to your code with more than one branch	Iteration (For / While) G - Describe how iteration works and use a simple loop in a program O - Use For and While loops to make code iterate	Graphics Window G - Create simple shapes using the graphics window O - Use suitable statements to assign properties to individual shapes	Fun with Shapes G - Create patterns using the graphics window and iteration O - Create and adapt code using complex built in functions	Turtle Graphics G - Create simple shapes using the turtle object O - Create efficient complex shapes using the turtle by applying iteration and maths	Branching + Subroutines G - Describe how Branching and Subroutines work O - Use Branching and Subroutines within code	Arrays G - Use Arrays to store multiple values within a variable O - Use an Indexed array with more than one set of indices	Assessment
9.2	Graphics	Introduction to Fireworks G - O -	Vector Tools G - O -	Bitmap Tools G - O -	Advanced Tools G - O -	Assessment Task G - O -	Assessment Task G - O -	Assessment G - O -			
9.3	Web Development	Introduction to HTML G - O -	Write Basic HTML G - O -	Formatting a page G - O -	Links G - O -	Images G - O -	CSS G - O -	Creating a Web Form G - O -	Assessment		
9.4	Networks	Networks and Protocols G - Define what a computer network is and why they are used O Explain how data is transmitted between computers across networks using examples of protocols	Network Hardware G - Give examples of network hardware O Describe the use of different types of network hardware	Wired and Wireless G - Compare wired and wireless connection and give examples of specific technologies O Discuss factors that affect the performance of a network	The Internet G - Describe what the internet is and how data travels between computers O - Explain the use of packet switching and protocols	The World Wide Web G - Describe some components of the World Wide Web O Explain how webpages are fetched and viewed	Test	Fix it / Green for Growth			
9.5	Data Representation	Images - Binary Mosaic G - O -	Images - A Splash of Colour G - O -	Images - Collage G - O -	Sound - Good Vibrations G - O -	Sound - Sonic Playground G - O -	Test	Fix it / Green for Growth			

KS3 National Curriculum

KEY
- Partial (orange)
- Full (green)

		7.1 E-safety	7.2 Computer Basics	7.3 Scratch Programming	7.4 Binary Basics	7.5 Using Media	Contingency 7.6 Microbits	8.1 Algorithms	8.2 Grand Designs	8.3 Spreadsheets	8.4 App Design	8.5 Cryptography	Contingency 8.6 Modern Technologies	9.1 Small Basic	9.2 Graphics	9.3 Web Development	9.4 Networks	9.5 Data Representation	Contingency 9.6 Animation	
Computer Science	design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems			Full				Partial	Full	Full	Partial		Partial	Partial		Partial	Partial			12
	understand several key algorithms that reflect computational thinking			Partial			Partial	Full				Partial	Partial				Partial	Partial		9
	use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures			Full			Full			Partial	Full			Full		Full		Full		11
	understand simple Boolean logic and some of its uses in circuits and programming; understand how numbers can be represented in binary		Partial		Full												Partial	Full		5
	understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems	Partial	Full								Partial						Partial	Full		8
	understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits		Partial											Partial			Partial	Full		7
IT	undertake creative projects that involve selecting, using, and combining multiple applications	Full		Full		Full			Partial		Partial		Partial			Partial	Partial		Full	12
	create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability	Partial		Full					Partial	Partial	Partial				Partial	Full			Partial	10
DL	understand a range of ways to use technology safely, respectfully, responsibly and securely	Full				Full						Full				Partial	Partial			8

Progression / Links to…

	7.1	7.2	7.3	7.4	7.5	7.6	8.1	8.2	8.3	8.4	8.5	8.6	9.1	9.2	9.3	9.4	9.5	9.6
	KS3 7.5, 9.3 **KS4 CS** Legislation	**KS3** 7.6, 8.6, 9.4 **KS4 CS** System Architecture Memory / Storage Software	**KS3** 7.3, 8.4, 9.1 **KS4 CS** Python Programming	**KS3** 8.1, 9.2 **KS4 CS** Data Representation	**KS3** 8.2, 8.6, 9.3 **KS4 CS** Legislation **KS4 IM** Sources **KS4 BU** Report writing	**KS3** 7.3, 8.4, 9.1 **KS4 CS** System Architecture Python Programming	**KS3** 8.5 **KS4 CS** Algorithms	**KS3** 7.5, 8.6, 9.3 **KS4 CS** **KS4 IM** Planning	**KS3** 8.5, 9.1, 9.2 **KS4 CS** Python Programming **KS4 IM** Planning **KS4 BU** Finance	**KS3** 7.3, 7.6, 9.1 **KS4 CS** Python Programming **KS4 IM** Multimedia	**KS3** 8.1, 9.4 **KS4 CS** System Security	**KS3** 7.5, 8.5, 9.3 **KS4**	**KS3** 7.3, 7.6, 8.3, 9.3 **KS4 CS** Python Programming	**KS3** 7.5, 9.2 **KS4 IM** Graphics **KS4 BU** Graphics	**KS3** 8.4, 9.4 **KS4 CS** Networks Python Programming	**KS3** 7.1, 7.2, 9.3 **KS4 CS** Networks	**KS3** 7.4, 8.3 **KS4 CS** Data Representation	**KS3** 7.5, 9.2 **KS4 IM** Animation
	6	4	7	5	6	5	3	4	4	6	5	4	5	5	7	6	5	3