CS – Computer Science strand IT – Information Technology strand

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Coding and	- Play with	- Play with	- Sorting items	- Understand	- Understand	- Recap on	- Recap on	- Recap on
Computational	equipment	equipment	using criteria	the term	the terms	Computational	Computational	Computational
<b>Thinking</b>	that simulates	that simulates	- Grouping	'algorithm'	'algorithm',	Thinking	Thinking	Thinking
	control	control	items using	- Create a	'decompostion	vocabulary	vocabulary	vocabulary
Year 1: Unit	devices (push	devices (push	criteria	program using	', 'pattern	from previous	from previous	from previous
1.2, 1.4, 1.5,	button toys)	button toys)		simple	recognition',	year groups	year groups	year groups
1.7			- Follow	algorithms	'abstraction'	and apply	and apply	and apply
	- Explore	- Follow	simple	- Compare	and 'system'.	them to	them to	them to
Year 2: Unit	outcomes	simple	instructions	'objects'	- Understand	simulate real	simulate real	simulate more
2.1	when	instructions	- Create	within code	why	life scenarios	life scenarios	complex real
	individual		simple	- Use the	sequencing is	- Use and	- Understand	life scenarios
Year 3:	buttons are	- Create	instructions	'repeat' and	important	create own	how different	- Recap using
ToodleBit 1	pressed on a	simple	- Consider	'timer'	- Solve	algorithms	types of data	variables,
and 2	robot	instructions	how order of	command	problems	- Sequence	is stored on a	'If/Else',
			instructions	- Understand	using	steps correctly	computer	'Forever' and
Year 4:	- Follow	- Using	affects result	the term	computational	to create a	- Understand	'While' code
ToodleBit 3	simple	direction keys		'debugging'	thinking	song	how	blocks
and 4	instructions		- Using	- Debug simple	- Identify	- Use physical	computers in a	- Use
		- Build one	direction keys	programs	computers	inputs and	network	decomposition
Year 5:	- Using	step	- Create and	- Make	around us in	outputs	communicate	within real life
ToodleBit 5	direction keys	instructions	debug a set of	predictions	the World	- Use variables	- Control a	coding
and 6			instructions	and analyse	- Manipulate	to store and	loop using	problems
	<ul> <li>Understand</li> </ul>	- Debug a	<ul> <li>Change and</li> </ul>	own code and	physical	manipulate	'while' and	- Understand
Year 6:	whether an	simple	extend	code of others	computing	data	'forever'	and use
ToodleBit 7	algorithm has	algorithm and	algorithms	- Plan and use	resources	- Use "If/Else"	coding blocks	'arrays'
and 8	been	make	- Share	algorithms to	(ToodleBit)	commands	- Recap on	
	successful or	corrections	algorithms	achieved a	- Use loops,	when coding	using 'If/Else'	
	not		with peers	'desired result'	inputs and	- Plan, test and	commands	

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CS – Computer Science strand IT – Information Technology strand

	5				
- Play with a	- Build one	outputs to	debug own	when coding	
simple	and two step	solve	coding	- Recap on	
adventure	instructions	problems	creation	using variables	
programme or	using printable	- Use		and physical	
simulation	code cards	debugging and		input/outputs	
	- Explain what	logical		- Use 'For' and	
	a block of	reasoning to		'If/Then'	
	code is	create own		coding blocks	
	- Read through	game		- Plan, test and	
	combined			debug own	
	blocks of code			coding	
	- Create			creation	
	background				
	and characters				
	- Design and				
	execute a				
	simple				
	program,				
	using inputs				
	and outputs				
	- Create and				
	debug simple				
	programs				
	- Use logical				
	reasoning to				
	predict the				
	behaviour of				
	simple				
	programs				

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CS – Computer Science strand IT – Information Technology strand

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Spreadsheets	- Understand	- Play a variety	- Understand	- Understand	- Create a	- Use number	- Create	- Use 'copy'
	that your use a	of games that	rows and	rows and	table of data	formatting	formula in	and 'paste'
Year 1: Unit	mouse to	help them to	columns	columns	Create charts	tools	spreadsheet	shortcuts
1.3	move around	learn mouse	- Use save and	- Use save and	and graphs	- Add a	to convert	effectively
	the screen	control and	open function	open function	from data	formula cell to	between units	- Use 'count'
Year 2: Unit		technique	- Enter data	- Enter data	- Use 'more	automatically	of measure	tool to solve a
2.3	- Drag name		- Move and	- Move and	than', 'less	make	- Use 'how	problem
	on a screen or	- Develop	locks cells	locks cells	than' and	calculation	many' tool in	- Use formula
Year 3: Unit	interactive	mouse control	- Use 'count'	- Use 'count'	'equals' tools	- Use 'timer',	different	wizard to
3.3	whiteboard to	- moving,	and 'speak'	and 'speak'	- Describe a	'random	context within	create
	indicate they	clicking,	tool	tool	cell location	number' and	spreadsheet	formulae
Year 4: Unit	are here	dragging etc		- Use 'copy'	on a	'spin' tools to	- Use	- Use
4.3	today. (Begin	and use simple		and 'paste'	spreadsheet	create fun	'advanced	spreadsheet
	with picture of	drag and drop		tool	- Find specific	ways to	mode' to	to solve range
Year 5: Unit	child; extend	matching		- Use 'total'	locations in a	explore	produce	of real-life
5.3	by adding	software - first		tool	spreadsheet	number	formulae that	problems
	their name,	with pictures		- Using images		- Use a series	solves	
Year 6: Unit	then remove	or sounds		(coins) in a		of data to	mathematical	
6.3	picture)	moving to		spreadsheet		create a line	equations (e.g.	
		letters and		- Create table		graph	finding area)	
	- Perform	text		of data		- Make	- Use	
	simple tasks			- Create block		practical use	spreadsheet	
	like clicking on			graph		of a	to model a	
	specific					spreadsheet	real-life	
	pictures					(e.g.	situation and	
						budgeting)	come up with	
						- Convert	solutions that	
						between	can be	

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CS – Computer Science strand	IT – Information Technology strand	DL – Digital Literacy strand		
			currencies	practically applied (e.g.
			using spreadsheet	budgeting,
			- Use images	shopping etc)
			within	
			spreadsheet in	
			cross- curricular	
			context (e.g.	
			place value)	

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CS – Computer Science strand IT – Information Technology strand

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Internet and	- With	- Support	- Logging in	- Use search	- Understand	- Understand	- Know who to	- Identify
<u>Email</u>	support, type	children in	- Taking	tools and	what makes a	security	tell if	benefits and
	and send a	exchanging	ownership of	refine	good	symbols online	something	risks of mobile
Year 1: Unit	short email	emails,	work	information	password	(e.g. padlock)	online upsets	devices and
1.1	from a class	perhaps with	- Finding saved	- Understand	- Understand	- Understand	them	other software
	account (e.g. a	an imaginary	work and	approval of	that some	the term	- Understand	broadcasting
Year 2: Unit	letter to	story	other	content by	information	'phishing' and	and use	location of
2.2, 2.5	Santa)	character	resources	others	may not be	be aware of	SMART rules	user
		(adult receives	- Using icons	- Understand	accurate or	scam websites	- Think	- Understand
Year 3: Unit		the emails and	to find	how to use,	true	- Explain how	critically about	the term
3.2, 3.5		replies	resources	open and send	- Create a	a digital	what they	'digital
		appropriately)	- Adding	emails	'spoof'	footprint can	share online	footprint' and
Year 4: Unit			pictures and	- Discuss own	website	link to identity	- Have a clear	understand
4.2, 4.7			text to work	experiences	- Identify	theft	idea about	how people
			- Using	and what	physical and	- Identify risks	good	use
Year 5: Unit			common icons	makes them	emotional	of installing	passwords	information to
5.2			(e.g. Save,	happy or sad	effects from	paid and free	- Understand	create 'online
			Print, Open,	- Understand	accessing	software	how image	presence'
Year 6: Unit			New)	the term	different	- Understand	manipulation	- Understand
6.2			- Exploring	ʻdigital	content	the terms	can have	consequences
			Games	footprint'	- Relate	'malware' and	advantages	of promoting
			- Logging out	- Identify steps	cyberbullying	'virus'	and	inappropriate
				to keep data	to real world	- Understand	disadvantages	content and
				and	contexts	the term	- Understand	how to put a
				information		'plagiarism'	importance of	stop to it
				secure online	- Highlight	- Understand	citing sources	- Understand
					strengths and	the difference	when	importance of
				- Understand	weaknesses of	between using	researching	balancing

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CS – Computer Science strand IT – Information Technology strand DL – Digital Literacy strand

the meaning of key internet of key internet terms communicatio (Internet/Worl of Wide Web/Browser/ Website/Web page/Web Address/Searc Address/Searc of key internet methods of and copying information and copying information search with other techniques to parts of life opinions about series of influences of advantages and disadvantages
terms (Internet/Worl d Wide web/Browser/ Website/Web page/Web emails communicatio information search techniques to parts of life techniques to parts of life positive and techniques to parts of life positive and positive and techniques to parts of life positive and techniques to parts of life par
(Internet/Worl d Wide
d Wide Web/Browser/ respond to Website/Web page/Web emails reshord technology on advantages and
Web/Browser/ respond to negative information opinions about website/Web series of page/Web emails technology on advantages and
Website/Web series of influences of - Understand advantages page/Web emails technology on advantages and
page/Web emails technology on advantages and
Address/Searc - Write rules wider world and disadvantages
h Engine) on how to stay disadvantages of technology
- Identify basic safe using - Structure of different and how
parts of a web email search queries forms of technology
search engine - Explore to locate communicatio affects health
- Use scenarios specific n and the
information involving real information environment
from a web life - Use search
search results applications technology to
page - Attach answer a
- Search for appropriate series of
answers, using   files to emails   questions
search engines - Understand - Write own
the term 'CC' search
and how to questions for
use it others
- Analyse web
pages for
credibility of
information

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CS – Computer Science strand IT – Information Technology strand

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Art and Design	- With help,	- Understand	- Know	- Use simple	- Identify the	- Produce	- Review and	- Identify
	begin to	there are a	difference	drawing tools	difference	physical and	analyse a	technological
Year 1: Unit	experiment	variety of tools	between	- Open and	between	digital	computer game	changes over
1.6	and use art	in a graphics	traditional	use clipart	various types	animation	- Design own	time and
	tools to create	(art) package	book and e-	- Resize	of art created	- Use 'onion	computer	compare
Year 2: Unit	a composition		book	drawing tools	by technology	skin' tool	game, based on selected theme	modern
2.6		- Begin to	- Add and edit	- Use 'fill' tool		- Add	- Upload images	technology
	<ul> <li>Discuss and</li> </ul>	experiment	text and	- Use	- Use	backgrounds	or use drawing	with older
Year 3: N/A	talk about art	and use art	pictures	repeating	technology to	and sounds	tools to create	technology
	composition	tools to create	- Add	patterns	take photos	- Understand	game	
Year 4: Unit	with adult	a composition	animation and	- Edit and	and videos for	the term 'stop	environment	- Record voice
4.6		for a purpose	sound	improve work	a specific	motion	- Design	using a digital
	- Use an object		- Record own	based on	purpose and	animation'	characters and	device and
Year 5: Unit	based graphics	- Write a	voice and	feedback	effect	- Create own	include	input it to
5.5, 5.6	program (e.g.	simple	music			stop motion	animation and	another
	whiteboard	sentence	- Save and		- Record	animation	sounds - Select	
Year 6: N/A	software) to	about	open previous		sound using a	- Publish work	appropriate	- Record and
	create a scene	composition	work		digital device	to a shared	options to make	edit sound
	by dragging		- Share work		and input it to	platform	unique game	effects and
	objects into	- Understand	on a shared		another		and maximise	music for a
	place on a	the difference	platform				playability	purpose
	background	between			- Use sound		- Evaluate own	
		image and text			effects and		and peers'	- Using a
					music for a		games to help	variety of
					purpose		improve design	software
							- Use different	independently
					- Use editing		viewpoints in	, children to
					software to		3D modelling software	create

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CS – Computer Science strand IT – Information Technology strand DL – Digital Literacy strand - Adapt 3D edit and presentations model by about specific change altering points composition topic to create own version - Edit and design 3D model for a purpose - Print own design as 2D net and create 3D model

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CS – Computer Science strand IT – Information Technology strand DL – Digital Literacy strand

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

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CS – Computer Science strand IT – Information Technology strand

	T	1	Т	1			Т	T
Databases and	- With help,	- Begin to	-	- Understand	- Use 'YES' and	- Use graphing	- Understand	- Use previous
Graphing	begin to	develop	Understanding	limitations of	'NO' questions	and data tools	different ways	database skills
	develop	simple	data in picture	pictograms/bi	- Contribute to	from previous	to search a	to create a
Year 1: Unit	simple	classification	form	nary tree	shared	year groups in	database	database
1.3	classification	skills by	- Contributing	- Use 'YES' or	branching	real life	- Use 'find'	about a real-
	skills by	carrying out	to class	'NO' questions	database	context (e.g.	tool to search	life context
Year 2: Unit	carrying out	simple sorting	project	to separate	- Create own	rainforest	for specific	and find
2.4	simple sorting	activities	- Using	information	branching	sorting, rain	information	statistical
	activities	independently	pictogram to	- Understand	database	fall graph)	- Use 'sort',	information
Year 3: Unit			record results	the term	- Select and		'group' and	about it
3.6, 3.8				'binary tree'	save		'arrange' tool	
				- Use a binary	appropriate		- View data in	- Use data
Year 4: N/A				tree to sort	images		different	points to
				pictures	- Use and		tables, based	create
Year 5: Unit				- Understand	debug own		on clarity	conclusions
5.4				the term	branching		- Use	about data
				'database'	database		'statistics' and	
Year 6: N/A				- Use database			'report' tool to	- Adapt
				to answer	- Set up graph		find statistical	inefficient
				simple and	with a given		information	databases and
				more complex	number of		about a	debug them
				search	fields		database	
				questions	- Enter data			
					for a graph			
					- Share graphs			
					on shared			
					platform			
					- Use graphs in			
					a range of			

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CS – Computer Science strand	IT – Information Technology strand	DL – Digital Literacy strand	
		contexts - Present	
		results in a	
		range of	
		graphical	
		formats	

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CS – Computer Science strand IT – Information Technology strand

	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Writing and	- Begin to use	- Begin to	- Write simple	- Write simple	- Understand	- Develop	- Develop	- Develop
<b>Presenting</b>	a keyboard	understand	sentences	sentences	the names of	typing speed	typing speed	typing speed
	(with support)	that ICT can be	with some	with more	fingers	with some	with more	with more
Year 1: N/A	and notice the	used to	accuracy,	accuracy,	- Understand	accuracy at 30	accuracy at 35	accuracy at 40
	effect on	communicate	using the	using the	the terms 'top	WPM	WPM	WPM
Year 2: Unit	screen	ideas in	keyboard	keyboard	row', 'home	- Use text	- Record	- Work
2.8		different ways			row', 'bottom	formatting to	information	collaboratively
	- With		- Begin using	- Understand	row' and 'top	fit for purpose	visually	with others to
Year 3: Unit	support, begin	- With	technology to	digital content	row'	and audience	- Understand	research and
3.4	to write	support, enter	create writing	may be	- Use two	- Interpret	the terms	plan a blog
	simple words	text into a	for a purpose	represented in	hands to type	variety of	'concept	- Use software
Year 4: Unit		search engine		many forms	on the	communicatio	maps', 'stage',	to create a
4.4	- Identify the	to find specific	- To use the	- Create a quiz	keyboard	ns to include	'nodes' and	blog, with
	difference	given web	backspace key	about a story	- Can type	in report	'connections'	focus to
Year 5: Unit	between text	sites (e.g.	to edit	- Talk about	individual and	- Create mind-	- Create a	varying
5.7	and images	CBeebies)	mistakes,	work and alter	series of	map	basic concept	audiences
			where	based on	words with	- Use ideas	map	- Understand
Year 6: Unit	- With help,	- With help,	appropriate	feedback	speed and	from mind-	- Work	that blogs
6.4, 6.7	add captions	search for and		- Add	accuracy	map to	collaboratively	need to be
	to	choose images	- Search for	appropriate		structure	with others to	maintained
	photographs,	from the	and add	pictures/clip-		writing	create a	regularly
	graphics and	internet	pictures to a	art and		- Assess	concept map	- Post
	sound		document	information		suitability of		comments and
	(perhaps	- With adult		- Use a variety		work		blog posts on
	choosing	support; they		of software to		produced		existing blogs
	words from a	create talking		manipulate				- Understand
	prepared word	books about		content				approval
	list)	their visit		- Present				process of

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CS – Computer Science strand IT – Information Technology strand DL – Digital Literacy strand

using	digital content	comments
Clicker/White	to others	- Demonstrate
board		awareness of
software		issues
		surrounding
		inappropriate
		posts and
		cyberbullying
		- Assess
		effectiveness
		and impact of
		a blog
		- Use software
		appropriately,
		based on
		specific
		audience (e.g.
		younger
		children)
		- Share quiz
		with peers and
		edit and
		improve,
		based on
		feedback
		- Design own
		quiz that
		requires user

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CS – Computer Science strand

IT - Information Technology strand

								to search a database
	Foundation 1	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Communicatio</b>	- With	- Understand	- Logging in to	- Perform	- Identify	- Name	- Use search	- Know the
n and	support, to	that cameras	an account	basic functions	examples of	different parts	technology	different
<b>Networks</b>	find a specific	can take still	(PurpleMash	of a computer	different	of a desktop	effectively to	between the
	program and	and moving	and ClassDojo)	(e.g. Logging	simulations	computer	find out	'World Wide
Year 1: Unit	open it	images (video)	- Taking	in, logging off,	(real or	- Understand	information	Web' and the
1.9			ownership of	opening	imaginary	function of	on topics of	'Internet'
	- Understand	- With	work	specific	situations)	different parts	interest	- Understand
Year 2: N/A	that	support,	- Respond to a	programs,	- Give	of a computer		their own
	technological	perform basic	teacher's task	opening work,	examples of			school
Year 3: Unit	devices can be	instructions	on ClassDojo	saving work)	simulations			network
3.7	used to record	(such as	- Finding saved		from own			- Use search
	and play back	logging in and	work and	- Add pictures	knowledge			technology
Year 4: Unit	sounds	logging out)	other	and sound to a	- Suggest			effectively to
4.8			resources	document	advantages			find out
		- To find a	- Using icons		and			information
Year 5: N/A		specific	to find	- Begin to use	disadvantages			on specific
		program and	resources	search	of simulations			people
Year 6: Unit		open it	- Adding	technology to	- Use			- Consider
6.6			pictures and	research	simulation to			major changes
		- With help,	text to work		test			in technology
		save their own	- Using	- Use a range	predictions			in the past,
		content in	common icons	of technology	- Evaluate			present and
		their own	(e.g. Save,	(e.g. cameras,	simulations,			future

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CS – Computer Science strand IT – Information Technology strand DL – Digital Literacy strand

	electronic	Print, Open,	microphones)	based on real		
		=	· ·			
	folder	New)	for a range of	life contexts		
		- Exploring	purposes	and usefulness		
	- Use voice	Games		- Recognise		
	amplifying or	- Logging out		patterns		
	changing	of an account		within		
	equipment	(PurpleMash		simulations		
	and notice the	and ClassDojo)				
	effect and	- Understand				
	record using a	the term				
	microphone	'technology'				
	•	- Consider				
		types of				
		technology				
		inside and				
		outside of				
		school				
		- Record				
		examples of				
		technology				
		outside of				
		school				

See following page for overview of units and where they fit at a glance:

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