



Nursery	Knowledge:
	To know that technology can be used in everyday life.
	<u>Skills:</u>
	Use technology in their play.
	Use technology to create a desired effect.
	Vocabulary:
	Computer, technology
	How does this prepare them for the following years?
	The children become familiar with the use of technology and gain confidence in selecting tools.
Reception	Knowledge:
	To know that technology can be used in everyday life.
	To know that technology can be used to create desired effects.
	<u>Skills:</u>
	To select tools for a desired effect. To be able to control movements.
	To use technology in their play.
	<u>Vocabulary:</u>
	Computer, technology, mouse, select, mouse
	How does this prepare them for the following years?
	The children become familiar with the use of technology and gain confidence in selecting tools to create desired effects.



Years

1/2

Cycle A



Autumn 1 and 2	Spring 1	Spring 2	Summer 1	Summer 2
We are Programmers	We are TV chefs	We are collectors	We are story tellers	We are astronauts
(Course A)	Software: iPads, iMovie or Microsoft Movie	Software: Combination of web-	Software: Book Creator	Software: Sprite Lab on
https://code.org/educate/curriculum/csf	Maker	browsing software e.g. Chrome,	Knowledge:	code.org
Software: Code.org	Knowledge:	Internet Explorer + PowerPoint/	To know how to create	Knowledge:
	How to respect others online and show	IWB Software to organise images.	content, e.g. a digit story book	To know what an algorithm is
Knowledge:	respect for their privacy and content.	Also use image libraries such as:	with text, voice recordings and	and how to use them.
How to stay safe online, including the		https://pixabay.com/	images (including some editing	
internet.	How to create content, e.g. working with		e.g. cropping, rotating).	To understand that algorithms
internet.	digital photos and video (including some	Knowledge:		will follow the instructions
How the internet can be explored to find out	editing e.g. cropping, rotating).	How to respect others online and	To know how to organise their	given.
new things.	To know how to organise their media e.g.	show sensitivity for their privacy.	media e.g. sorting files into their own content directory in	To know how to write their own
0	sorting files into their own content	Kanan harrista anna at anna an	Children's Work.	programs.
To know what an algorithm is and they will	directory in Children's Work.	Know how to report a worry	children's work.	programs.
only follow the instructions given.	directory in clinaren 5 work.	regarding content online.	To understand where	To know what debugging is and
	To understand where something is stored	Know common uses of information	something is stored e.g. on the	how to debug a simple
To know what debugging is and how to	e.g. on the computer, a network or online.	technology.	computer, a network or online.	program.
debug a simple program.	o			
	To know what retrieval is.	To know that the internet allows us	To know what retrieval is.	To know what persistence and
To know what repetition is and how this		to access images store on other		resilience mean.
links to looping.	<u>Skills:</u>	computers called web servers,	To understand how a talking	
	To use devices in a safe and responsible	anywhere in the world.	book differs from a paper-	Skills:
<u>Skills:</u>	manner.		based book.	Convert simple algorithms to
To use algorithms to program a device to solve a problem or to 'do' something.		Skills:		programs.
solve a problem of to do something.	To use an iPad safely to record content.	Copy and paste images from the	<u>Skills:</u>	
Write simple programs through being shown		internet into power point or IWB	Use sound recording	Predict what a simple program
how to use the code.org system	To stop, start and delete content when	slide.	equipment to record sounds.	will do.
	necessary.		Develop collaboration skills as	Spot and fix (debug) errors in
Recognise errors which must be fixed.	To use video editing software to edit	Organise and retrieve image safely	they work together in a group.	their programs.
-	footage and create a video.	on an online image library.	they work together in a group.	
Begin to use strategies to debug.		Organise picture content on power	Talk about and reflect on their	Vocabulary:
	To upload and save their footage, with	point or IWB slides in a coherent	use of ICT share recordings	Algorithm, coding, sprite,
Use loops for repetition in their coding.	support.	way under headings.	with an audience.	persistence and resilience.
	Vocabulary:	Save and retrieve content when		
Vocabulary:	Video, store, save, edit, upload.	required.	Vocabulary:	
Algorithms, program, device, instructions,	· · · ·		Store, retrieve, record, talking	
code, internet safety		Vocabulary:	book	
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How does this prepare them for the following years? In lower KS2 the children continue to develop their coding skills. They will continue to write code, debug it, and use loops. Developing early skills in computational thinking and reasoning will help the children as their skillset is further developed.	How does this prepare them for the following years? In lower KS2 the children undertake another topic which uses recording devices, where they need to plan, record and edit.	Internet, copy and paste, clipart, web server, save, retrieve <i>How does this prepare them for the</i> <i>following years?</i> The children will continue to use the internet safely. In lower KS2 they will continue to use more software to communicate their ideas to other people, in the 'We are Communicators' unit. They will also be presenting data and information on PowerPoint in the unit 'We are Meteorologists'.	How does this prepare them for the following years? In lower KS2 the children undertake another topic which uses recording devices, where they need to plan, record and edit.	How does this prepare them for the following years? Understanding how to write an algorithm is a recurring element of the computing curriculum and is revisited each year.





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Years	Autumn 1 and 2	Spring 1	Spring 2	Summer 1	Summer 2
	We are Programmers	We are photographers	We are researchers	We are zoologist	We are painters
1/2	(Course B)	Hardware: digit camera devices/iPads			Knowledge:
	https://code.org/educate/curriculum/csf	Software: Picasa /Pixelr /Picasa Web/	Software: Freemind / Linkbunch /	Software: Excel	Know how to create content on
Cycle B	Software: Code.org	Photoshop Elements	PowerPoint- Smart NoteBook	Knowledge:	paint and similar apps.
,	Knowledge:	Knowledge:	Knowledge:	To know how to create	
	To know what an algorithm is and they will	How to respect others online and show	How to respect others online and	content, e.g. input data into	To understand how this use of
	only follow the instructions given.	respect for their privacy and content.	show sensitivity for their privacy.	Excel and use this to create	ICT differs from using paint and
				graphs and charts.	paper.
	To know what debugging is and how to	How to create content, e.g. working with	Know how to report a worry	To know how to organise their	
	debug a simple program.	digital photos and video (including some	regarding content online and who	media e.g. sorting files into	To know how to organise their
		editing e.g. cropping, rotating).	to go to / how to get support.	their own content directory in	media e.g. sorting files into their own content directory in
	To know how to write their own programs.	To know how to organise their media e.g.	Know common uses of information	Children's Work.	Children's Work.
		sorting files into their own content	technology, beyond school.		children's work.
	To know what repetition is and how this	directory in Children's Work.		To understand where	To understand where
	links to looping.		To know how to use search engine	something is stored e.g. on the	something is stored e.g. on the
		To understand where something is stored	safely to find information on a	computer, a network or online.	computer, a network or online.
		e.g. on the computer, a network or online.	topic.		
	<u>Skills:</u>		<u>Skills:</u>	To know what retrieval is.	To know what retrieval is.
	To use algorithms to program a device to	To know what retrieval is.	Use collaboration skills through	<u>Skills:</u>	
	solve a problem or to 'do' something.		working as part of a group.	Collect data using tick charts or	Skills:
	Write simple programs through being shown	<u>Skills:</u>		tally charts.	Select and use appropriate
	how to use the code.org system	Use a digital camera or camera app to take	Develop research skills through	the simula shouting of the sec	painting tools to create and
		digital photographs.	searching for information on the	Use simple charting software to produce pictograms and	change images on the
	Recognise errors which must be fixed.		internet.	other basic charts.	computer.
	0	Review and reject or pick the images they	Improve note-taking skills through		Create an illustration for a
	Begin to use strategies to debug.	take.	the use of mind mapping.	Take, edit and enhance	particular purpose.
		Edit and enhance their photographs.	the use of mind mapping.	photographs.	particular purpose.
	Use loops for repetition in their coding.	Eart and emilance their photographs.	Develop presentation skills through		Reflect on their work and act on
		Select their best images to include in a	creating and delivering a short	Record information on a digital	feedback received.
	Use logical reasoning to predict the	shared portfolio.	multimedia presentation.	map.	
	behaviour of simple programs.	Vocabulary:	Vocabulary:	Vocabulary:	Vocabulary:
		Digital photo, photography, edit, save,	Research, online safety, search	Excel, save, retrieve, tally,	Paint, portrait, save, retrieve.
	Vocabulary:	store, online portfolio	engines	charts, graphs.	
	Algorithms, program, device, instructions, code, internet safety				How does this prepare them for
	code, memer salery	How does this prepare them for the	How does this prepare them for the	How does this prepare them for	the following years?
		following years?	following years?	the following years?	
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How does this prepare them for the following years?In lower KS2 the children undertake another topic which uses recording devices, where they need to plan, record and edit.The children will continue to use the internet safely. In lower KS2 the children will output to use more software to communicate their ideas to other people, in the 'We are Communicators' unit. They will also be presenting data and information on PowerPoint in the unit 'We are developed in KS2.In lower KS2 the children will use Excel and similar programs agin, developing skills further in the 'We are Opinion Pollsters' and 'We are Meteorologists'.In upper KS2 the children embark on another art unit called 'We are Artists', in which the children to make artwork using a wider range of software.	•	•	• •	-	
	following years? In lower KS2 the children continue to develop their coding skills. They will continue to write code, debug it, and use loops. Developing early skills in computational thinking and reasoning will help the children as their skillset is further	another topic which uses recording devices,	internet safely. In lower KS2 they will continue to use more software to communicate their ideas to other people, in the 'We are Communicators' unit. They will also be presenting data and information on PowerPoint in the unit 'We are	use Excel and similar programs again, developing skills further in the 'We are Opinion Pollsters' and 'We are	embark on another art unit called 'We are Artists', in which the children to make artwork





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Years	<u>Autumn 1</u>	<u>Autumn 2</u>	Spring 1	Spring 2	Summer 1	Summer 2
	We are Programmers	We are Programmers	We are musicians	We are presenters	We are communicators.	We are HTML Editors
3/4	(Course C Part 1)	(Course D Part 2)	Software: Isle of Tune (Web-	Videoing performance	Software: Web-based email-	Software: Web-Based e.g. Code
	https://code.org/educate/c	https://code.org/educate/c	based)	Software: iMovie	LGFL via Outlook/ PowerPoint/	Academy HTML Introduction
Cycle A	urriculum/csf	urriculum/csf	Knowledge:	Knowledge:	Web-based Wiki-Software/	Knowledge:
	Software: Code.org	Software: Code.org	To know how to select, use	To know how to select, use and	Word.	To understand/recognise that
	Knowledge:	Knowledge:	and combine a variety of	combine a variety of software	Knowledge:	their online actions impact
	To know what sequencing	To know what sequencing	software (including internet	(including internet services) on a	To understand/recognise that	others.
	in programming refers to.	in programming refers to.	services) on a range of digital	range of digital devices to design	their online actions impact	
			devices to design and create	and create a range of programs,	others.	To develop some awareness of
	To know what repetition is.	To know what repetition is.	a range of programs, systems	systems and content that		their digital footprint as they
	To be oble to similate the	To know what selection and	and content that accomplish	accomplish given goals.	To develop some awareness of	use the internet.
	To be able to explain the thinking behind their	variables refer to in	given goals.		their digital footprint as they use the internet.	To know that they can talk to
	algorithms.	advanced coding.	Collect, analyse, evaluate	Collect, analyse, evaluate and	use the internet.	To know that they can talk to the police, in confidence to
	algorithms.	auvanceu counig.	and present data and	present data and information.	To know that they can talk to	child line, CEOP (Child
	To develop a more	To be able to explain the	information.	Understand the qualities of	the police, in confidence to	Exploitation + Online Protection
	considered approach,	thinking behind their		effective video, such as the	child line, CEOP (Child	Command) etc.
	planning code rather than	algorithms.	Skills:	importance of narrative,	Exploitation + Online	,
	using trial and error		Use one or more programs to	consistency, perspective and scene	Protection Command) etc.	To understand how different
	approach.	To develop a more	edit music.	length.		computers around a network,
		considered approach,			To understand how different	or around the world, are
	<u>Skills:</u>	planning code rather than	Create and develop a musical	Skills:	computers around a network,	connected (both physically and
	To write simple algorithms	using trial and error	composition, refining their	Gain skills in shooting live video,	or around the world, are	through their networking
	which have been planned	approach.	ideas through reflection and	such as framing shots, holding the	connected (both physically and	programming).
	and considered.		discussion.	camera steady, and reviewing.	through their networking	
		<u>Skills:</u>		<i>"</i>	programming).	To understand some technical
	To be able to explain	To write simple algorithms	Use collaboration skills.	Edit video, including adding	To know that information is	aspects of how the internet makes the web possible.
	choices made when coding.	which have been planned	Davidaria en entre en ef	narration and editing clips by	digitised before being sent on.	makes the web possible.
	To debug coding when	and considered.	Develop an awareness of how their composition can	setting in/out points.	digitised before being sent on.	Understand some of the risks in
		To be able to explain	enhance work in other		Skills:	using the web.
	necessary.	choices made when coding.	media.	Vocabulary:	Develop a basic understanding	using the web.
		choices made when coung.	incula.	Framing, editing, shooting,	of how email works gain skills	
	Vocabulary:	To debug coding when	Vocabulary:	narration, reviewing.	in using email.	<u>Skills:</u>
	Sequencing, programming,	necessary.	Program, composition,			To use HTML tags for
	repetition, looping, algorithm	,	collaborate, media.	How does this prepare them for the	Be aware of broader issues	elementary mark up.
		Vocabulary:		following years?	surrounding email, including	To use hyperlinks to connect
		Sequencing, programming,		In upper KS2 the children use other	'netiquette' and e-safety.	ideas and sources.
				software programs creatively to		





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How does this prepare them for the following years? In upper KS2 the children continue to develop their coding skills through using code.org where they will build on the skills learnt this year but will require more on logic than trial and error.	repetition, looping, algorithm, variables, selection <i>How does this prepare</i> <i>them for the following</i> <i>years?</i> In upper KS2 the children continue to develop their coding skills through using code.org where they will build on the skills learnt this year but will require more on logic than trial and	How does this prepare them for the following years? In upper KS2 the children use other software programs creatively to make pieces of art. This unit gives the children the opportunity to explore software creativity.	make pieces of art. This unit gives the children the opportunity to explore software creativity.	Work collaboratively with a remote partner to experience video conferencing. <u>Vocabulary:</u> Digit footprints, emails, netiquette, collaboration, video calling. <i>How does this prepare them for the following years?</i> In upper KS2 the children will build on the skills developed in this unit when they start a	Code up a simple web page with useful content. <u>Vocabulary:</u> HMTL, Hyperlinks, code <i>How does this prepare them for</i> <i>the following years?</i> In upper KS2 the children undertake a web develop unit which builds on the skills of HTML.
					HTML.





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Years	<u>Autumn 1</u>	<u>Autumn 2</u>	Spring 1	Spring 2	Summer 1	<u>Summer 2</u>
	We are Programmers	We are Programmers	We are opinion pollsters	We are meteorologists	We are network engineers	We are software developers
3/4	(Course D Part 1)	(Course C Part 2)	Software: Excel / InspireData	Software: Excel / Google Drive/	Software: Access to school	
	https://code.org/educate/c	https://code.org/educate/c	/ Google Drive	PowerPoint / IWB software	network and command prompt	Knowledge:
Cycle B	urriculum/csf	urriculum/csf	Knowledge:	Hardware: data loggers, video	Knowledge:	To know how to design, write
- /	Software: Code.org	Software: Code.org	To know the importance of	recorders/webcams	To understand how different	and debug programs that
	Knowledge:	Knowledge:	privacy in relation to data	Knowledge:	computers around a network,	accomplish specific goals,
	To know what sequencing	To know what sequencing	and how to share	To know how to use software with	or around the world, are	including controlling or
	in programming refers to.	in programming refers to.	information responsibly.	support, then independently before	connected (both physically and	simulating physical systems.
				combining software and selecting it	through their networking	
	To know what repetition is.	To know what repetition is.	To know how to use software	for themselves.	programming).	Splitting problems into smaller
			with support, then			parts is part of computational
	To be able to explain the	To know what selection and	independently before	To know how to collect, analyse,	To know that information is	thinking.
	thinking behind their	variables refer to in	combining software and	evaluate and present data and	digitised before being sent on.	
	algorithms.	advanced coding.	selecting it for themselves.	understand this is an important		<u>Skills:</u>
				application of computers.	To understand the physical	Develop an educational
	To develop a more	To be able to explain the	To know how to collect,		hardware connections	computer game using selection
	considered approach, planning code rather than	thinking behind their algorithms.	analyse, evaluate and present data and understand	<u>Skills:</u>	necessary for computer networks to work.	and repetition.
	using trial and error	algorithms.	this is an important	Understand different measurement	networks to work.	
	approach.	To develop a more	application of computers.	techniques for weather, both		Understand and use variables.
	approach.	considered approach,	application of computers.	analogue and digital.	<u>Skills:</u>	
	Skills:	planning code rather than	Skills:	Use computer-based data logging to	Understand and use some	Start to debug computer
	To write simple algorithms	using trial and error	Understand some elements	automate the recording of some	features of internet protocols.	programs.
	which have been planned	approach.	of survey design.	weather data.	Use some diagnostic tools for	Decognics the importance of
	and considered.		er euroy aceigin		investigating network	Recognise the importance of user interface design, including
		<u>Skills:</u>	Understand some ethical and	Use spreadsheets to create charts	connections.	consideration of input and
	To be able to explain	To write simple algorithms	legal aspects of online data	analyse data, explore		output.
	choices made when coding.	which have been planned	collection.	inconsistencies in data and make	Develop a basic understanding	- alpan
		and considered.		predictions.	of how domain names are	Vocabulary:
	To debug coding when		Use the web to facilitate data		converted to IP addresses.	Selection, repetition, variables,
	necessary.	To be able to explain	collection.	Work with data they have		debug, interface design.
		choices made when coding.		generated or collected for	Vocabulary:	
	Vocabulary:		Gain skills in using charts to	themselves, as well as big, public	Domain name, hardware,	How does this prepare them for
	Sequencing, programming,	To debug coding when	analyse data.	datasets.	networks, diagnostic tools,	the following years?
	repetition, looping,	necessary.		Practise using presentation	connections, IP address.	These skills are repeated in the
	algorithm	Vocabulary:	Gain skills in interpreting	software and, optionally, video.		code.org courses throughout
		Sequencing, programming,	results.		How does this prepare them for	their school experience.
		repetition, looping,		Vocabulary:	the following years?	
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How does this prepare them for the following years? In upper KS2 the children continue to develop their coding skills through using code.org where they will build on the skills learnt this year but will require more on logic than trial and error.	algorithm, variables, selection How does this prepare them for the following years? In upper KS2 the children continue to develop their coding skills through using code.org where they will build on the skills learnt this year but will require more on logic than trial and error.	Vocabulary: Survey, data collection, interpret and analyse. How does this prepare them for the following years? In upper KS2 the children will continue to use the internet safely and learn about privacy in the blogging unit.	Software, collecting data, analysing and evaluating data, automate, spreadsheets. <i>How does this prepare them for the</i> <i>following years?</i> In upper KS2 the children will begin to use other software apps, applying the skills learnt and learn about privacy in the blogging unit.	In upper KS2 the children will be on their understanding of computer networks in the web developer unit.	





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Years	<u>Autumn 1</u>	Autumn 2 and Spring 1	Spring 2	Summer 1	Summer 2
	We are bloggers	We are programmers	We are cryptographers	We are artists	We are web developers
5/6	Software: Word-press	Course E	Software: Scratch / Snap! / Black	Software: Scratch, Inkscape /	
		https://code.org/educate/curriculum/csf	Chamber	Illustrator / RoamerWorld	Software: Codeacademy
Cycle A	Ka availa da a	(Sprites, Digital Citizenship, Nested Loops, Functions +	Knowledge:	Knowledge:	
Cycle A	Knowledge:	Conditionals)	To use technology safely,	To know how to use software	Knowledge:
	To use technology safely,		respectfully and responsibly.	with support, then	Know that splitting problems
	respectfully and responsibly; recognise	Software: Code.org	respectfully and responsibly.	independently before	into smaller parts is part of
	acceptable/unacceptable	Knowledge:	To understand legal and ethical	combining software and	computational thinking.
	behaviour; identify a range	To understand the term cyber bullying and to spot when it is	responsibilities.	selecting it for themselves.	computational triming.
	of ways to report concerns	happening.		C C	To understand how different
	about content and contact.		To understand how different	To know what sequencing in	computers around a network,
	about content and contact.	To know how to be a responsible digit citizen.	computers around a network, or	programs refers to.	or around the world, are
	To understand how		around the world, are connected		connected (both physically and
	different computers around	To understand legal and ethical responsibilities.	(both physically and through their	That repetition is	through their networking
	a network, or around the		networking programming).	understanding the use of	programming).
	world, are connected (both	To know that sequencing in programming refers to the steps		repeating.	
	physically and through their	taken and in which order to achieve a goal.	To know that information is		To know that information is
	networking programming).		digitised before being sent on and	Understand the links between	digitised before being sent on
		To know that repetition is understanding the use of	the effects this has had on	geometry and art.	and the effects this has had on
	To know that information is	repeating.	communication.		communication.
	digitised before being sent			Skills:	
	on and the effects this has	To know variables refers to the idea of programming to be	To understand the need for private	Become familiar with the tools	To understand that their online
	had on communication.	prepared for multiple answers.	information to be encrypted.	and techniques of a vector	actions impact others.
				graphics package.	
	<u>Skills:</u>	To know how a simple algorithm works.	To appreciate the need to use		To understand legal and ethical
	Create a sequence of blog		complex passwords and to keep	Develop an understanding of	responsibilities.
	posts on a particular,	To know how to spot and correct errors in algorithms.	them secure.	turtle graphics.	
	theme or topic.				To understand how to become
		<u>Skills:</u>	<u>Skills:</u>	Experiment with the tools	aware of their digital footprint.
	Incorporate additional	Use technology safely, respectfully and responsibility.	To be familiar with semaphore and	available, refining and	
	media, such as photo, audio		Morse code.	developing their work as they	To know that they can talk to
	or video.	Recognise acceptable/unacceptable behaviour.		apply their own criteria to	the police, in confidence to
			To encrypt and decrypt messages in	evaluate it and receive	child line, CEOP (Child
	Comment critically on the	Identify a range of ways to report concerns about content and contact.	simple ciphers.	feedback from their peers.	Exploitation + Online Protection
	posts of others.		To have some understanding of	Develop some awareness of	Command) etc.
		To use sequence, selection, and repetition in programs.	how encryption works on the web.	computer-generated	
		io use sequence, selection, and repetition in programs.		art, in particular fractal-based	<u>Skills:</u>
			Vocabulary:	landscapes.	
				ianuscapes.	





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Develop a critical, reflective view of a range of media, including text.	output. Use logical reasoning to explain how some simple	Ciphers, code, encrypt, decrypt. How does this prepare them for the following years?	<u>Vocabulary:</u>	To develop a simple web page for a purpose. <u>Vocabulary:</u>
Vocabulary: Blog, blog post, medium, media, network How does this prepare them for the following	algorithms work and to detect and correct errors in algorithms and programs. Develop a more considered approach, planning code rather than using trial and error approach.	This topic prepares the children for KS3 when they continue to learn how to use technology safely, respectfully, responsibly and securely. In addition, it prepares them to begin understanding simple	Geometry, vector, turtle graphics, fractal-based landscapes. How does this prepare them for the following years?	Web, developer, communication, audience How does this prepare them for the following years?
years? This topic prepares the children for KS3 when they have to create a digital artefact for a given audience.	Vocabulary: Cyberbullying, digital citizen, sequencing, programming, loops, variables, algorithm, code <i>How does this prepare them for the following years?</i> This topic prepares the children for KS3 when they continue to learn how to use technology safely, respectfully, responsibly and securely.	Boolean logic through their knowledge of encryption and decryption.	This topic prepares them for KS3 as they undertake creative projects that involve selecting, using, and combining multiple applications.	This topic prepares the children for KS3 when they have to create a digital artefact for a given audience.





Years	Autumn 1 and 2	Spring 1	Spring 2	Summer 1 and 2
	We are Programmers	We are Computer Scientists	We are Programmers	We are app planners/ developers
5/6	(Course F)	(CS Unplugged, Count the Dots—Binary	(Lego or Sphero)	Software: Code.org alternative e.g. Appshed
	https://code.org/educate/curriculum/csf	Numbers)	Knowledge:	Knowledge:
Cycle B	Sprites, Digital Citizenship, Variables, Loops,	Software: CS Unplugged	To understand legal and ethical	To understand that some content may have been written to give a
	Data	Knowledge:	responsibilities.	balanced overview, while other elements may have been written
	Software: Code.org	To understand that computers use and rely		to advance one side of an argument.
	Knowledge:	on binary code.	To know that sequencing in	
	To know how to appropriately communicate		programming refers to the steps	To know how to use software under the control of the teacher.
	online.	To know what binary code is and how it is	taken and in which order to achieve	
		used.	a goal.	To understand how different computers around a network, or
	To know what sequencing is.		To know that repetition is	around the world, are connected (both physically and through their networking programming).
		To know how to design, write and debug	understanding the use of repeating.	their networking programming).
	To know what selection and variables refer	programs that accomplish specific goals, including controlling or simulating physical	understanding the use of repeating.	To know that information is digitised before being sent on and the
	to.	systems.	To know variables refers to the idea	effects this has had on communication.
		systems.	of programming to be prepared for	
		To know that information is digitised	multiple answers.	Develop an awareness of the capabilities of smartphones and
	To know that repetition is understanding the	before being sent on e.g. packets of		tablets.
	use of repeating.	information.	To know how a simple algorithm	
	- I II I II I I I I I I I I I I I I I I		works.	Understand geolocation, including GPS.
	To know that splitting problems into smaller	<u>Skills:</u>		
	parts is part of computational thinking.	To solve problems with binary code.	To know how to spot and correct	To know how to use a programming toolkit or development
	Chiller		errors in algorithms.	platform.
	Skills: To use sequence, selection, and repetition in	To use logical reasoning to explain how		
	programs.	some simple algorithms work and to detect	<u>Skills:</u>	Skills:
	programs.	and correct errors in algorithms and	Use technology safely, respectfully and responsibility.	To search using effective terms.
	To work with variables and various forms of	programs.	and responsibility.	Use software with increasing independence, combine software
	input and output.	To solve problems by decomposing them	To use sequence, selection, and	and select software themselves.
		into smaller parts.	repetition in programs.	
	To be able to debug specific programs by			Design, write algorithm and debug programs that accomplish
	reviewing code created.	Vocabulary:	To work with variables and various	specific goals, including controlling or simulating physical systems.
		Binary	forms of input and output.	
	To use logical reasoning to explain how	Diriary		Solve problems by decomposing them into smaller parts.
	some simple algorithms work, detecting and	How does this prepare them for the	Use logical reasoning to explain how	
	correcting errors.	following years?	some simple algorithms work and to	Identify interesting, solvable problems, evaluate competing
		In KS3 children use two or more	detect and correct errors in	products and pitch a proposal for a smartphone or tablet app.
		programming languages, at least one of	algorithms and programs.	
		programming languages, at least one of		Import existing media assets to their project.





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Develop a more considered approach,	which is textual, to solve a variety of	Develop a more considered	Thoroughly test and evaluate their app.
planning code rather than using trial and	computational problems; make appropriate	approach, planning code rather	
error approach, explaining their thinking.	use of data structures [for example, lists,	than using trial and error approach.	Vocabulary:
	tables or arrays]; design and develop		App, debug, network, geolocation, GPS, algorithm
<u>Vocabulary:</u>	modular programs that use	Vocabulary:	
Sequencing, variables, loops, selection,	procedures or functions. They continue to	Sequencing, programming, loops,	How does this prepare them for the following years?
coding, online safety	be taught how to use technology safely.	variables, algorithm, code	In KS3, children will undertake creative projects that involve
			selecting, using, and combining multiple applications, preferably
How does this prepare them for the		How does this prepare them for the	across a range of devices, to achieve challenging goals, including
following years?		following years?	collecting and analysing data and meeting the needs of known
In KS3 children learn to understand several		This topic prepares the children for	users. They continue to be taught how to use technology safely.
key algorithms that reflect computational		KS3 when they continue to create,	
thinking [for example, ones for sorting and		reuse, revise and repurpose digital	
searching]; use logical reasoning to compare		artefacts for a given audience, with	
the utility of alternative algorithms for the		attention to trustworthiness, design	
same problem. They continue to be taught		and usability.	
how to use technology safely.			