

## **CULTURAL CAPITAL**

In today's digital world, it is essential that children leave primary school as competent, confident, creative and responsible users of information and communication technology. By helping children become digitally literate, our computing curriculum supports their readiness for the modern workplace and the opportunities that lie ahead. The ability to analyse problems in computational terms, and the knowledge of how to write computer programs in order to solve such problems, will help equip children with the skills and creativity needed to understand and change the world.



## Cycle A

Reception	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6			
Topic theme	Houses and Homes	Fabulous Festivals	Transport and Travel	Once Upon a Time	Marvellous Minibeasts	(Think Big)			
Computing Outcomes	ELG (End of Reception):	LG (End of Reception):							
	Children at the expected level o	Children at the expected level of development will:							

## Cycle B

Reception	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6			
Topic theme	Superheroes/Super	Time for Toys	Dinosaurs	Once upon a Time	5,4,3,2,1 Blast Off!	On the Farm			
	Me/Super People								
Computing	ELG (End of Reception):								
Outcomes	Children at the expected level o	Children at the expected level of development will:							

Computing	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1 & 2	Paddington	Scientists and Inventors	Tin Forest	Grow, Grow, Grow	Our Village in the Past	Under the Sea
Cycle A						
National Curriculum	To recognise common	To recognise common	To use technology	Use technology	To understand what	To use technology
objectives	uses of information	uses of information	purposefully to create,	purposefully to create,	algorithms are; how they	purposefully to create,
	technology beyond school	technology beyond school	manipulate and retrieve	organise, store,	are implemented as	organise, store, manipulate
			digital content	manipulate and retrieve	programs on digital	and retrieve digital content
	To use technology safely	To use technology safely	, C	digital content	devices; and that	
	and respectfully, keeping	and respectfully, keeping	To recognise common		programs execute by	To recognise common uses
	personal information	personal information	uses of information	Recognise common uses	following precise and	of information technology
	private; identify where to	private; identify	technology beyond school	hevond school	unambiguous instructions	beyond school
	go for help and support	where to go for help and	Create and debug simple		To success and delayer	To use technology safely
	when they have concerns	support when they have	programs		To create and debug	and respectfully, keeping
	about content or contact	concerns about content or			simple programs	personal information
	on the internet or other	other online technologies			To use logical reasoning to	for help and support when
	online technologies	other online technologies.			no use logical reasoning to	they have concerns about
					simple programs	content or contents about
					simple programs	the internet or other online
						technologies
Brogrossion of skills	Introduction to	Onling safety	Animation	Big Science Event	Scratch lunior	Searching online
Progression of skills	Computing	Know and understand the	Work with others or	Lise a granhing nackage to	Introduction	Explore information from a
	Show an awareness of a	four rules beyond words	independently to	collect organise and	Control a device on and	variety of sources
	range of inputs to a	and explain why they are	contribute to a digital	classify data selecting	off screen making	(electronic naper based
	computer (IWB, mouse	important	class resource	appropriate tools to	predictions about the	observations of the world
	touch screen.	mportant	which includes text.	create a graph and answer	effect their programming	around them. etc.).
	microphone, keyboard,	Explain the four rules to	graphic and sound.	questions.	will have.	
	etc)	someone else				Show an awareness of
			Save, retrieve and edit	Enter information into a	Children can plan ahead.	different forms of
	Begin to show an	Present information to	their work.	simple database or word		information
	awareness that computers	explain how to behave	Constant size allo subscribes	processor and use it to		
	can be linked to share	safely online	Create a simple animation	answer questions.		Children use a search
	resources		to tell a story.			engine to find specific
				They save, retrieve and		relevant information to use
				edit their work.		in a presentation for a topic.
						Save and retrieve their
						work.

Resources	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/mem
	mbers/2016/01/13/key-	mbers/2016/01/26/key-	mbers/2018/02/26/ks1-	bers/2019/06/25/ks1-
	stage-1-online-safety-	stage-1-animation-	scratch-jnr-introduction/	internet-search/
	introduction/	challenge/		
	https://123sow.co.uk/me			
	mbers/2018/03/15/ks1-			
	online-safety-experts/			

Computing	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1 & 2	When I grow up	Explorers	Great Fire of London	The Little Gardener	Chocolate	Wild and Wonderful
Cycle B						Creatures
National	To recognise common uses	To recognise common uses	To use technology	Use technology	To use technology	To understand what
Curriculum	of information technology	of information technology	purposefully to create,	purposefully to create,	purposefully to create,	algorithms are; how they
objectives	beyond school	beyond school	organise, store, manipulate	organise, store, manipulate	organise, store, manipulate	are implemented as
			and retrieve digital content	and retrieve digital content	and retrieve digital content	programs on digital
	To use technology safely	To use technology safely			recognise common uses of	devices; and that programs
	and respectfully, keeping	and respectfully, keeping	To recognise common uses	Recognise common uses of	information technology	execute by following
	personal information	personal information	of information technology	information technology	beyond school	precise and unambiguous
	private; identify where to	private; identify	beyond school	beyond school		instructions
	go for help and support	where to go for help and			To use technology safely	
	when they have concerns	support when they have			and respectfully, keeping	To create and debug simple
	about content or contact	concerns about content or			personal information	programs
	on the internet or other	contact on the internet or			private	
	online technologies	other online technologies.				To use logical reasoning to
						predict the behaviour of
						simple programs
Progression of	Introduction to Computing	Online safety	Graphics	Big Science Event	e-book	BeeBot Fun Challenge
skills	Show an awareness of a	Know and understand the	Use a range of tools in a	Use a graphing package to	Work with others or	Control a device, on and off
	range of inputs to a	four rules beyond words	paint package/image	collect, organise and	independently	screen, making predictions
	computer (IWB, mouse	and explain why they are	manipulation software to	classify data, selecting	and with support to	about the effect their
	touch screen, microphone,	important	create and modify a picture	appropriate tools to create	contribute to a digital class	programming will have.
	keyboard, etc)		or to communicate an idea.	a graph and answer	resource which includes	
		Explain the four rules to		questions.	text, graphic and sound	Children can plan ahead.
	Begin to show an	someone else				
	awareness that computers			Enter information into a	Save and retrieve and edit	
	can be linked to share	Present information to		simple database or word	their work.	
	resources	explain how to behave		processor and use it to		
		safely online		answer questions.		
				They save, retrieve and edit		
				their work.		
Resources		https://123sow.co.uk/mem	https://123sow.co.uk/mem		https://123sow.co.uk/mem	https://123sow.co.uk/mem
		bers/2016/01/13/key-	bers/2018/05/22/ks1-		bers/2016/01/13/key-	bers/2016/10/18/key-
		stage-1-online-safety-	graphics/		stage-1-e-book-challenge/	stage-1-bee-bot-fun/
		introduction/				

	https://123sow.co.uk/mem		
	bers/2018/03/15/ks1-		
	online-safety-experts/		

Computing	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 3 & 4	Groovy Greeks	The Fiery Earth	Frozen Planet	Anglo Saxons	Egyptians	Local Area Study
Cycle A						
National Comission	l les technology sefely	Design units and debug	Coloct was and combine a	Coloct was and combine a	Design units and dahug	
National Curriculum	use technology salely,	Design, write and debug	Select, use and compline a	Select, use and compline a	Design, write and debug	onderstand computer
objectives	respectfully and	programs that accomplish	Variety of software	(in charling interment	programs that accomplish	intervent including the
	responsibly; recognise		(including internet	(including internet	specific goals, including	internet; now they can
	acceptable/unacceptable	controlling or simulating	services) on a range of	services) on a range of	controlling or simulating	provide multiple
	behaviour; identify a	physical systems; solve	digital devices to design	digital devices to design	physical systems; solve	services, such as the world
	range of ways to report	problems by decomposing	and create a range of	and create a range of	problems by decomposing	wide web; and the
	concerns about	them into smaller	programs, systems and	programs, systems and	them into smaller	opportunities they offer for
	content and contact.	Parts	content that	content that	Parts	communication and
			accomplish given goals,	accomplish given goals,		collaboration
		Use sequence, selection,	including collecting,	including collecting,	Use sequence, selection,	
		and repetition in	analysing, evaluating and	analysing, evaluating and	and repetition in	Use search technologies
		programs; work with	presenting data	presenting data and	programs; work with	effectively, appreciate how
		variables and various	and information	information	variables and various	results are selected and
		forms of input and output			forms of input and output	ranked, and be discerning in
						evaluating digital content
		Use logical reasoning to			Use logical reasoning to	
		explain how some simple			explain how some simple	
		algorithms work and to			algorithms work and to	
		detect and correct errors			detect and correct errors	
		in algorithms and			in algorithms and	
		programs			programs	
Progression of skills	Online Safety Comic	Scratch Quiz	Stop-motion animation	Big Science Event	Computer coding	Networks, the Internet and
	Understand what the	Children are able to type a	Manipulate digital images	Make simple use of a	Children are able to type a	searching
	rules are to keep you safe	short sequence of	using a range of tools in	spreadsheet to store data	short sequence of	Show an understanding of
	online	instructions and to plan	appropriate software to	and produce graphs.	instructions and to plan	the school network and how
		ahead when programming	convey a specific mood or		ahead when programming	it links computers to
	Use software to present	devices on and off screen.	idea	Children work as a class or	devices on and off screen.	resources in school and
	their ideas to explain			group to create a data		beyond.
	some of the risks of being	Program a simple quiz to	Make a short film /	collection sheet and use	Engage in Logo based	
	online and present the	ask questions using an	animation from images	it to setup a straight	problem solving activities	Compare this with other
	SMART rules in a fun way	output and give feedback	(still and / or moving) that	forward database	that require children to	networks they may
		on input answers	they have sourced,	to answer questions.	write procedures etc. and	encounter at home or in the
	Explain why these changes		captured or created		to predict, test and	wider world (e.g. banks)
	in behaviour are needed	To use a range of outputs		Enter information and	modify.	
	in a non-frightening way	to give feedback to		interrogate it ( by		Perform a search using
	using engaging and	answers provided to		searching, sorting,		different search engines and
		questions		graphing etc).		check the results against

	appropriate images to					each other, explaining why
	support their key message	To ask more complex		Know how to enter simple		they might be different.
		questions using		formulae into a		
		randomisation for outputs		spreadsheet		Show an awareness of the
		and multiple choice inputs				need for accuracy in spelling
						and syntax to search
						effectively.
Resources	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/me	https://code.org/student/	https://123sow.co.uk/mem
	mbers/2017/06/30/ks2-	mbers/2018/01/05/ks2-	mbers/2016/01/26/key-	mbers/2017/10/11/ks2-	elementary	bers/2017/10/30/ks2-
	online-safety-comic/	scratch-quiz/	stage-2-animation-	spreadsheets/		networks-the-internet-and-
			challenge/			searching/

Computing	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 3 & 4	Planet Earth	Flintstones	Romans	Europe	Baghdad	Rainforests
Cycle B						
National Curriculum	Use technology safely,	Select, use and combine a	Design, write and debug	Select, use and combine a	Use search technologies	Select, use and combine a
objectives	respectfully and	variety of software	programs that accomplish	variety of software	effectively, appreciate	variety of software
	responsibly; recognise	(including internet	specific goals, including	(including internet	how results are selected	(including internet services)
	acceptable/unacceptable	services) on a range of	controlling or simulating	services) on a range of	and ranked,	on a range of digital devices
	behaviour; identify a	digital devices to design	physical systems; solve	digital devices to design	and be discerning in	to design and create a range
	range of ways to report	and create a range of	problems by decomposing	and create a range of	evaluating digital content	of programs, systems and
	concerns about	programs, systems and	them into smaller	programs, systems and		content that accomplish
	content and contact.	content that accomplish	Parts	content that	Select, use and combine a	given goals, including
		given goals, including		accomplish given goals,	variety of software	collecting, analysing,
		collecting, analysing,	Use sequence, selection,	including collecting,	(including internet	evaluating and presenting
		evaluating and presenting	and repetition in	analysing, evaluating and	services) on a range of	data and information
		data and information	programs; work with	presenting data	digital devices to design	
			variables and various	and information	and create a range of	
			forms of input and output		programs, systems and	
					content that accomplish	
			Use logical reasoning to		given goals, including	
			explain how some simple		collecting, analysing,	
			algorithms work and to		evaluating and presenting	
			detect and correct errors		data and information	
			in algorithms and			
			programs			
Progression of skills	Online Safety –	Garage Band	Scratch Animation	Big Science Event	Topic research and	Choose your own
	Introduction to the	Create multiple track	Children are able to type a	Make simple use of a	presentation	adventure
	SMART rules	compositions that	short sequence of	spreadsheet to store data	Perform a search using	Record and present
		contain a variety of	instructions and to plan	and produce graphs.	different search engines	information integrating a
	Understand that there are	sounds.	ahead when programming		and check the results	range of appropriate
	rules to keep you safe		devices on and off screen.	Children work as a class or	against each other,	media combining text and
	online	Keep a basic rhythm		group to create a data	explaining why they might	graphics in printable form
		throughout adding layers	Apply repetition to your	collection sheet and use	be different.	and sound and video for
	Understand some of the	of sound to create a	program by decomposing	it to setup a straight		on-screen presentations
	risks of being online and	musical 'story'.	it into manageable chucks	forward database	Show an awareness of the	which include hyperlinks.
	understand that the		for programming	to answer questions.	need for accuracy in	Begin to show an awareness
	SMART rules are designed	Combine more complex			spelling and syntax to	of the intended audience
	to suggest changes to	chord progressions or	Analyse your program and	Enter information and	search effectively.	and seek feedback
	behaviour intended to	sections to the music such	algorithm to discover any	interrogate it (by		
	keep you safe online	as a verse, chorus and	errors and debug your	searching, sorting,		
		bridge section.		graphing etc).		

	Explain what each of the		program so it works as		Record and present	Manipulate digital images
	SMART rules means and		expected	Know how to enter simple	information integrating a	using a range of tools in
	why they are important			formulae into a	range of appropriate	appropriate software to
	rules			spreadsheet	media combining text and	convey a specific mood or
					graphics in printable form	idea.
					and sound and video for	
					on-screen presentations	
					which include hyperlinks.	
					Begin to show an	
					awareness of the	
					intended audience and	
					seek feed-back.	
Resources	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/me		https://123sow.co.uk/mem
	mbers/2016/04/06/key-	mbers/2016/04/06/key-	mbers/2017/07/19/ks2-	mbers/2017/10/11/ks2-		bers/2016/01/26/key-stage-
	stage-2-introducing-the-	stage-2-garageband-	scratch-animation/	spreadsheets/		2-choose-adventure/
	smart-rules/	music-challenge/				

Computing	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 5 & 6	Crime and Punishment	World War II	Is Britain still Great?	River Deep, Mountains	Amazing Mayans	Lands End to John O'Groats
Cycle A				High!		
National Curriculum	Use technology safely,	Select, use and combine a	Understand computer	Select, use and combine a	Understand computer	Design, write and debug
objectives	respectfully and	variety of software	networks including the	variety of software	networks including the	programs that accomplish
	responsibly; recognise	(including internet	internet; how they can	(including internet	internet; how they can	specific goals, including
	acceptable/unacceptable	services) on a range of	provide multiple	services) on a range of	provide multiple	controlling or simulating
	behaviour; identify a	digital devices to design	services, such as the world	digital devices to design	services, such as the world	physical systems; solve
	range of ways to report	and create a range of	wide web; and the	and create a range of	wide web; and the	problems by decomposing
	concerns about	programs, systems and	opportunities they offer	programs, systems and	opportunities they offer	them into smaller
	content and contact.	content that	for communication and	content that	for communication and	Parts
		accomplish given goals,	collaboration	accomplish given goals,	collaboration	
		including collecting,		including collecting,		Use sequence, selection,
		analysing, evaluating and		analysing, evaluating and	Use search technologies	and repetition in programs;
		presenting data		presenting data	effectively, appreciate	work with variables and
		and information		and information	how results are selected	various
					and ranked, and be	forms of input and output
					discerning in evaluating	
					digital content	Use logical reasoning to
						explain how some simple
						algorithms work and to
						detect and correct errors in
						algorithms and programs
Progression of skills	Online Safety – SMART	Stop-motion animation	Networks, the Internet	Big Science Event	Networks, the Internet	Scratch project
	podcast	Use images that they have	and searching	Set up and use their own	and Sharing	Independently create
	Understand what the	sourced/ captured/	Show an understanding of	spreadsheet, which	Show an understanding of	sequences of commands to
	rules are to keep you safe	manipulated as part of a	how filtering and	contains formulae to	how filtering and	control devices in
	online	bigger project (eg	monitoring tools affect	investigate mathematical	monitoring tools affect	response to sensing (i.e. use
		presentation or	their use of the school	models. Ask "what if"	their use of the school	inputs as well as outputs).
	Explain some of the risks	document).	network and Internet and	questions and change	network and Internet and	
	of being online and		compare this with their	variable in their model.	compare this with their	Design, build, test, evaluate
	present the SMART rules		experience of access		experience of access	and modify
	using audio to suggest		outside school.	Understand the need for	outside school.	the system; ensuring that it
	changes to behaviour are			accuracy when creating		is fit for purpose.
	needed to keep you safe		Use collaborative tools	formulae and check	Use collaborative tools	
	online		and e-mail showing a	regularly for mistakes, by	and e-mail showing a	
			sensitivity for this type of	questioning results.	sensitivity for this type of	
	Combine a variety of		remote collaboration and		remote collaboration and	
	audio features to enhance		communication	Relate their use of	communication	
	your message e.g. backing			spreadsheets to model		
	music and sound effects					

			situations to the wider	
	Create and share more		world.	
	sophisticated podcasts			
	and consider the effect		Children are able to	
	that their podcasts will		identify their own	
	have on the audience.		opportunities for data	
			logging and carry out their	
			own experiments.	
			They check and question	
			results and are able to	
			spot trends in data and	
			identify when problems	
			may have occurred.	
Resources	https://123sow.co.uk/me		https://123sow.co.uk/me	
	mbers/2016/04/06/key-		mbers/2017/10/11/ks2-	
	stage-2-smart-rule-		spreadsheets/	
	podcast/			

Computing	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 5 & 6	Adventures in Space	Blood, Bones and Body	Vikings and Saxons	Shang Dynasty	Natural Resources	Think Global, Act Local
Cycle B		Bits				
National Curriculum	Use technology safely,	Design, write and debug	Select, use and combine a	Select, use and combine a	Design, write and debug	Select, use and combine a
objectives	respectfully and	programs that accomplish	variety of software	variety of software	programs that accomplish	variety of software
	responsibly; recognise	specific goals, including	(including internet	(including internet	specific goals, including	(including internet services)
	acceptable/unacceptable	controlling or simulating	services) on a range of	services) on a range of	controlling or simulating	on a range of
	behaviour; identify a	physical systems; solve	digital devices to design	digital devices to design	physical systems; solve	digital devices to design and
	range of ways to report	problems by decomposing	and create a range of	and create a range of	problems by decomposing	create a range of programs,
	concerns about	them into smaller	programs, systems and	programs, systems and	them into smaller	systems and content that
	content and contact.	Parts	content that	content that	Parts	accomplish given goals,
			accomplish given goals,	accomplish given goals,		including collecting,
		Use sequence, selection,	including collecting,	including collecting,	Use sequence, selection,	analysing, evaluating and
		and repetition in	analysing, evaluating and	analysing, evaluating and	and repetition in	presenting data
		programs; work with	presenting data	presenting data	programs; work with	and information
		variables and various	and information	and information	variables and various	
		forms of input and output			forms of input and output	
		Use logical reasoning to			Use logical reasoning to	
		explain how some simple			explain how some simple	
		algorithms work and to			algorithms work and to	
		detect and correct errors			detect and correct errors	
		in algorithms and			in algorithms and	
		programs			programs	
Progression of skills	Online Safety	Scratch game	E-book	Big Science Event	Computer Coding	Green Screen
	Presentation	Independently create	Multimedia work shows	Set up and use their own	Independently create	Create and share more
	Understand what the	sequences of commands	restrained use of	spreadsheet, which	sequences of commands	sophisticated video and
	rules are to keep you safe	to control devices in	effects that help to	contains formulae to	to control devices in	consider the effect that
	online	response to sensing (i.e.	convey meaning	investigate mathematical	response to sensing (i.e.	their video will have on the
		use inputs as well as	rather than impress.	models. Ask "what if"	use inputs as well as	audience.
	Use software to present	outputs).		questions and change	outputs).	
	their ideas to explain		Create an eBook in a	variable in their model.		Pupils use the basic
	some of the risks of being	Design, build, test,	format to be read on a		Design, build, test,	techniques to create an
	online and present the	evaluate and modify	computer including text	Understand the need for	evaluate and modify	informative green screen
	SMART rules in a fun way	the system; ensuring that	and images	accuracy when creating	the system; ensuring that	video.
		it is fit for purpose		formulae and check	it is fit for purpose.	
	Explain why these changes		Include sounds as hot-	regularly for mistakes, by		Pupils edit and enhance a
	in behaviour are needed	Program a controllable	spots or to narrate bits of	questioning results.		number of green screen
	in a non-frightening way	player sprite to collect	the story or information			videos to create and publish
	using engaging and	objects	and embedded video clips	Relate their use of		information as a video.
	appropriate images to		(either animation or	spreadsheets to model		
	support their key message		video)			

				situations to the wider		
				world.		
				Children are able to		
				identity their own		
				opportunities for data		
				logging and carry out their		
				own experiments.		
				They check and question		
				results and are able to		
				spot trends in data and		
				identify when problems		
				may have occurred.		
Resources	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/me	https://123sow.co.uk/me	https://code.org/student/	https://123sow.co.uk/mem
	mbers/2016/01/13/key-	mbers/2016/03/02/key-	mbers/2016/01/13/key-	mbers/2017/10/11/ks2-	elementary	bers/2018/09/04/ks2-
	stage-2-online-safety-	stage-2-scratch-game-	stage-2-e-book-challenge/	spreadsheets/		green-screen-presentation/
	challenge/	challenge/				8 p,
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