

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year R	Begin to understand that ICT (the internet) gives rapid access to a wide variety of information and resources • Talk about their use of ICT and other ways of finding information • Begin to develop key questions and find information to answer them- TEACHER MODELLED NOT INDEPENDENT ACCESS	Begin to understand that computers provide access to a variety of information in different forms • Begin to appreciate the relationship between graphical representations and real data	Data logging Be aware that digital devices (such as metal detectors, thermometers and microphones) can be used to show external changes	Digital imagery Understand that computers are good for still and moving images (video) • Understand there are a variety of tools in a graphics package and they each have a different purpose • Understand digital still or video cameras (and later visualiser or scanners) can capture an image. • Talk about their use of a paint package and their choice of tools	Begin to understand that all kinds of ICT tools are used for different modes of communication • Understand that messages can be sent electronically over distances and that people can reply to them. • Understand that communications can be in pictures, sound and text	Understand that devices respond to commands • Talk about devices in the home that are controlled by commands. • Begin to be aware of and have opportunities to use computer controlled devices in the outside world (pelican crossing, automatic doors, cash point machines supermarket technology Understand that technological devices can be used to record and play back sounds • Be aware that sound can be recorded on the computer as a sound file. • Recognise that an electronic keyboard can be used to select and control sounds
Year 1	Computing systems and networks – Technology around us	Creating media – Digital painting	Programming A – Moving a robot	Data and information – Grouping data	Creating media – Digital writing	Programming B – Programming animations



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	Decemining	Choosing appropriate	Writing short algorithms	Exploring object labels,	Using a computer to	
	Recognising	tools in a program to	and programs for floor	then using them to sort	create and format text,	Designing and
	technology in school	create art and making	robots and predicting	and group objects by	before comparing to	programming the
	and using it responsibly.	comparisons with	program outcomes.	properties.	writing non-digitally.	movement of a
		working non-digitally.				character on screen to
	Use technology		Understand what	Use technology	Use technology	tell stories.
	purposefully to create,	Use technology	algorithms are, how	purposefully to create,	purposefully to create,	
	organise, store,	purposefully to create,	they are implemented	organise, store,	organise, store,	Understand what
	manipulate and	organise, store,	as programs on digital	manipulate and	manipulate and	algorithms are, how
	retrieve digital content.	manipulate and	devices, and that	retrieve digital content.	retrieve digital content.	they are implemented
	Recognise common	retrieve digital content.	programs execute by	Recognise common	Use technology safely	as programs on digital
	uses of information		following precise and	uses of information	and respectfully,	devices, and that
	technology beyond	Image document PDF	unambiguous	technology beyond	keeping personal	programs execute by
	school.	portable format	instructions.	school.	information private;	following precise and
	Use technology safely	pondbie forman	Create and debug		identify where to go for	unambiguous
	and respectfully,		simple programs.	Sound effects dialogue	help and support when	instructions.
	keeping personal		Use logical reasoning to	PowerPoint voice	they have concerns	Create and debug
	information private;		predict the behaviour	memo	about content or	simple programs.
	identify where to go for		of simple programs.	memo	contact on the internet	Use logical reasoning to
	help and support when		Recognise common		or other online	predict the behaviour
	they have concerns		uses of information		technologies.	of simple programs.
	about content or		technology beyond			Use technology
	contact on the internet		school.		Type insert copy paste	purposefully to create,
	or other online				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	organise, store,
	technologies.		Presentation digital			manipulate and
			9			retrieve digital content.
			image			
	Input output debug					Algorithm edit video
	program instructions					camera decomposition
. X. C.	robot			Derter and information		
Year 2	Computing systems	Creating media –	Programming A – Robot	Data and information –	Creating media –	Programming B –
	and networks –	Digital photography	algorithms	Pictograms	Making music	Programming quizzes
	Information technology					
	around us Identifying IT	Capturing and	Creating and	Collecting data in tally	Using a computer as a	Designing algorithms
	and how its responsible	changing digital	debugging programs,	charts and using	tool to explore rhythms	and programs that use
	use improves our world	photographs for	and using logical	attributes to organise	and melodies, before	events to trigger
	in school and beyond.	different purposes.	reasoning to make	and present data on a	creating a musical	sequences of code to
			predictions.	computer.	composition.	make an interactive
	Use technology	Use technology				quiz.
	purposefully to create,	purposefully to create,	Understand what	Use technology	Use technology	
	organise, store,	organise, store,	algorithms are, how	purposefully to create,	purposefully to create,	



	manipulate and retrieve digital content.	manipulate and retrieve digital content.	they are implemented as programs on digital	organise, store, manipulate and	organise, store,	Understand what algorithms are, how
	Recognise common	Recognise common	devices, and that	retrieve digital content.	manipulate and	they are implemented
	uses of information	uses of information	programs execute by	Use technology safely	retrieve digital content.	as programs on digital
	technology beyond	technology beyond	following precise and	and respectfully,		devices, and that
	school.	0, ,	unambiguous			programs execute by
	Use technology safely	school.	instructions.	keeping personal		following precise and
	and respectfully,		Create and debug	information private;		unambiguous
	keeping personal		simple programs.	identify where to go for		instructions.
	information private;		Use logical reasoning to	help and support when		Create and debug
			predict the behaviour	they have concerns		simple programs.
	identify where to go for		of simple programs.	about content or		Use logical reasoning to
	help and support when			contact on the internet		predict the behaviour
	they have concerns			or other online		of simple programs.
	about content or			technologies.		1 1 0
	contact on the internet					
	or other online					
	technologies.					
Year 3	Computing systems	Creating media – Stop-	Programming A –	Data and Information –	Creating media –	Programming B – Events
	and networks –	frame animation	Sequencing sounds	Branching databases	Desktop publishing	and actions in
	Connecting computers					programs
		Capturing and editing	Creating sequences in	Building and using	Creating documents by	
	Identifying that digital	digital still images to	a block-based	branching databases	modifying text, images	Writing algorithms and
	devices have inputs,	produce a stop-frame	programming	to group objects using	and page layouts for a	programs that use a
	processes and outputs and how devices can	animation that tells a	language to make	yes/no questions.	specified purpose.	range of events to
	be connected to make	story.	music.	Select, use and	Use search	trigger sequences of actions.
	networks.	Select, use and	Design, write and	combine a variety of	technologies	actions.
		combine a variety of	debug programs that	software on a range of	effectively, appreciate	Design, write and
	Use sequence,	software on a range of	accomplish specific	digital devices to	how results are	debug programs that
	selection and repetition	digital devices to	goals, including	design and create a	selected and ranked	accomplish specific
	in programs; work with	design and create a	controlling or simulating	range of programs,	and be discerning in	goals, including
	variables and various	range of programs,	physical systems; solve	systems and content	evaluating digital	controlling or simulating
	forms of input and	systems and content	problems by	that accomplish given	content.	physical systems; solve
	output.	that accomplish given	decomposing them	goals, including	Select, use and	problems by
	Understand computer	goals, including	into smaller parts.	collecting, analysing,	combine a variety of	decomposing them
	networks, including the	collecting, analysing,	Use sequence,	evaluating and	software on a range of	into smaller parts.
	internet; how they can	evaluating and	selection and repetition	presenting data and	digital devices to	Use sequence,
	provide multiple	presenting data and	in programs; work with	information.	design and create a	selection and repetition
	services, such as the	information.	variables and various		range of programs,	in programs; work with



	World Wide Web and the opportunities they offer for communication and collaboration. Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Malware mail servers chart data graph opinion questions rating scale research survey	Sequence input output debug graphics algorithm animation program script storyboard	forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Virus scanning Software hardware personal information attachment email e- safety spam spoofed link video conference virus	Movie maker input Commentary analysis audio close-up editing footage panning shooting video camera zooming	systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Internet protocol Diagnostic tools domain names IP address command prompt internet network packet of data ping router wi-fi
Year 4	Computing systems	Creating media –	Programming A –	Data and information –	Creating media –	ping router wi-fi Programming B –
	Recognising the internet	Audio editing Capturing and editing audio to produce a podcast, ensuring that	Using a text-based programming language to explore	Data logging Recognising how and why data is collected over time, before using	Photo editing Manipulating digital images and reflecting on the impact of	Repetition in games Using a block-based programming language to explore
	networks including the	copyright is considered.		ever inne, before using	changes and whether	count-controlled and



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WWW and why we		count-controlled loops	data loggers to carry	the required purpose is	infinite loops when
should evaluate online	Use search	when drawing shapes.	out an investigation.	fulfilled.	creating a game.
content.	technologies				
	effectively, appreciate	Design, write and	Use sequence,	Use search	Design, write and
Understand computer	how results are	debug programs that	selections and	technologies	debug programs that
networks, including the	selected and ranked	accomplish specific	repetition in programs;	effectively, appreciate	accomplish specific
internet; how they can	and be discerning in	goals, including	work with variables and	how results are	goals, including
provide multiple	evaluating digital	controlling or simulating	various forms of input	selected and ranked	controlling or simulating
services, such as the	content.	physical systems; solve	and output.	and be discerning in	physical systems; solve
World Wide Web, and	Select, use and	problems by	Select, use and	evaluating digital	problems by
the opportunities they	combine a variety of	decomposing them	combine a variety of	content.	decomposing them
offer for	software on a range of	into smaller parts.	software on a range of	Select, use and	into smaller parts.
communication and	digital devices to	Use sequence,	digital devices to	combine a variety of	Use sequence,
collaboration.	design and create a	selection and repetition	design and create a	software on a range of	selection and repetition
Use search	range of programs,	in programs; work with	range of programs,	digital devices to	in programs; work with
technologies	systems and content	variables and various	systems and content	design and create a	variables and various
effectively, appreciate	that accomplish given	forms of input and	that accomplish given	range of programs,	forms of input and
how results are	goals, including	output.	goals, including	systems and content	output.
selected and ranked	collecting, analysing,	Use logical reasoning to	collecting, analysing,	that accomplish given	Use logical reasoning to
and be discerning in	evaluating and	explain how some	evaluating and	goals, including	explain how some
evaluating digital	presenting data and	simple algorithms work	presenting data and	collecting, analysing,	simple algorithms work
content.	information.	and to detect and	information.	evaluating and	and to detect and
Select, use and	Use technology safely,	correct errors in		presenting data and	correct errors in
combine a variety of	respectfully and	algorithms and		information.	algorithms and
software on a range of	responsibly; recognise	programs.		Use technology safely,	programs.
digital devices to	acceptable/unaccept	Select, use and		respectfully and	Select, use and
design and create a	able behaviour; identify	combine a variety of		responsibly; recognise	combine a variety of
range of programs,	a range of ways to	software on a range of		acceptable/unaccept	software on a range of
systems and content	report concerns about	digital devices to		able behaviour; identify	digital devices to
that accomplish given	consent and contact.	design and create a		a range of ways to	design and create a
goals, including		range of programs,		report concerns about	range of programs,
collecting, analysing,		systems and content		content and contact.	systems and content
evaluating and	chart data-logging	that accomplish given			that accomplish given
presenting data and	forecast graph	goals, including			goals, including
information.	measurement	collecting, analysing,			collecting, analysing,
Use technology safely,	prediction spreadsheet	evaluating and			evaluating and
respectfully and	temperature	presenting data and			presenting data and
responsibly; recognise	lemperatore	information.			information.
acceptable/unaccept					
able behaviour; identify					



	a range of ways to report concerns about consent and contact. code HTML HTTP (hyper text transfer protocol) hyperlink tag URL web page attachment email e-safety spam spoofed link video conference virus					
Year 5	Op art geometric landscape sprite symmetry vector graphics	Creating media – Video editing Planning, capturing and editing video to produce a short film. Use search technologies effectively, appreciate	Programming A – Selection in physical computing Exploring conditions and selection using a programmable microcontroller. Design, write and	Data and Information – Flat-file databases Using a database to order data and create charts to answer questions. Use search technologies	Creating media – Vector drawing Creating images in a drawing program by using layers and groups of objects. Select, use and combine a variety of	Programming B – Selection in quizzes Exploring selection in programming to design and code an interactive quiz. Design, write and debug programs that
		how results are selected and ranked and by discerning in evaluating digital content. Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given	debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and	effectively, appreciate how results are selected and ranked and by discerning in evaluating digital content. Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content	software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting a range of ways to report concerns about content and contact.	accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output.
		goals, including collecting, analysing, evaluating and presenting data and information.	output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in	that accomplish given goals, including collecting, analysing, evaluating and presenting data and information		Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs.



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		Use technology safely,	algorithms and			Select, use and
		respectfully and	programs.			combine a variety of
		responsibly; recognise	Select, use and			software on a range of
		acceptable/unaccept	combine a variety of			digital devices to
		able behaviour, identify	software on a range of			design and create a
		a range of ways to	digital devices to			range of programs,
		report concerns about	design and create a			systems and content
		content and contact.	range of programs,			that accomplish given
			systems and content			goals, including
			that accomplish given			collecting a range of
			goals, including			ways to report
			collecting, analysing,			concerns about
			evaluating and			content and contact.
			presenting data and			
			information.			
Year 6	Computing systems	Creating media –	Programming A –	Data and Information –	Creating media – 3D	Programming B –
	and networks – Internet	Webpage creation	Variables in games	Introduction to	modelling	Sensing
	communication			spreadsheets		
		Designing and creating	Exploring variables		Planning, developing	Designing and coding
	Recognising how the	webpages, giving	when designing and	Answering questions by	and evaluating 3D	a project that captures
	WWW can be used to	consideration to	coding a game.	using spreadsheets to	computer models of	inputs from a physical
	communicate and be	copyright, aesthetics		organise and calculate	physical objects.	device.
	searched to find	and navigation.	Design, write and	data.		
	information.		debug programs that		Select, use and	Design, write and
		Use search	accomplish specific	Select, use and	combine a variety of	debug programs that
	Design, write and	technologies	goals, including	combine a variety of	software on a range of	accomplish specific
	debug programs that	effectively, appreciate	controlling or simulating	software on a range of	digital devices to	goals, including
	accomplish specific	how results are	physical systems; solve	digital devices to	design and create a	controlling or simulating
	goals, including	selected, ranked and	problems by	design and create a	range of programs,	physical systems; solve
	controlling or simulating	be discerning in	decomposing them	range of programs,	systems and content	problems by
	physical systems; solve	evaluating digital	into smaller parts.	systems and content	that accomplish given	decomposing them
	problems by	content.	Use sequence,	that accomplish given	goals, including	into smaller parts.
	decomposing them	Select, use and	selection and repetition	goals, including	collecting a range of	Use sequence,
	into smaller parts.	combine a variety of	in programs; work with	collecting a range of	ways to report	selection and repetition
	Understand computer	software on a range of	variables and various	ways to report	concerns about	in programs; work with
	networks, including the	digital devices to	forms of input and	concerns about	content and contact.	variables and various
	internet; how they can	design and create a	output.	content and contact.	Use technology safely,	forms of input and
	provide multiple	range of programs,	Use logical reasoning to		respectfully and	output.
	services, such as the	systems and content	explain how some		responsibly; recognise	Use logical reasoning to
	World Wide Web, and	that accomplish given	simple algorithms work		acceptable/unaccept	explain how some



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the opportunities they	goals, including	and to detect and		able behaviour; identify	algorithms work and to
offer for	collecting a range of	correct errors in		a range of ways to	detect and correct
communication and	ways to report	algorithms and		report concerns about	errors in algorithms and
collaboration.	concerns about	programs.		content and contact.	programs.
Use search	content and contact.	Select, use and			Select, use and
technologies	Use technology safely,	combine a variety of			combine a variety of
effectively, appreciate	respectfully and	software on a range of			software on a range of
how results are	responsibly; recognise	digital devices to			digital devices to
selected and ranked,	acceptable/unaccept	design and create a			design and create a
and be discerning in	able behaviour; identify	range of programs,			range of programs,
evaluating digital	a range of ways to	systems and content			systems and content
content.	report concerns about	that accomplish given			that accomplish given
Select, use and	content and contact.	goals, including			goals, including
combine a variety of		collecting a range of			collecting a range of
software on a range of		ways to report			ways to report
digital devices to		concerns about			concerns about
design and create a		content and contact.			content and contact.
range of programs,		Use technology safely,			
systems and content		respectfully and			
that accomplish given		responsibly; recognise			
goals, including		acceptable/unaccept			
collecting a range of		able behaviour; identify			
ways to report		a range of ways to			
concerns about		report concerns about			
content and contact.		content and contact.			