

National Curriculum in Computing				National Curriculum in Computing											
Key stage 1				Key stage 2											
Pupils should be taught to:				Pupils should be taught to:											
	Key Words	Program	Year 1	Year 2	Key Words	Program	Year 3	Year 4	Year 5	Year 6					
Computer Science	A	understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions	Algorithm, program, instructions	SNAP! Hour of code, Examples A-E. Hour of code, Beebots	Pupils understand that in order to make a device/computer work a program must be created.	understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions	G (A&B)	1 - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems 2 - solve problems by decomposing them into smaller parts	Design,write, debug, program, simulation,problem solving, malfunction	SNAP! Scratch, Blockly Turtle, Examples H-Q,	Pupils can design a simple algorithm.	Pupils can design and write a program to accomplish a specific task. They should understand how to break down a problem into smaller tasks.	1 - Pupils can design, write and debug a program that accomplishes a specific goal. 2 - This should include control or simulation of a physical system. 3 - Pupils should be able to solve problems by decomposing them into smaller parts	1 - Pupils can design, write and debug a program that accomplishes a specific goal. 2 - This should include control or simulation of a physical system. 3 - Pupils should be able to solve problems by decomposing them into smaller parts	
	B	create and debug simple programs	Create, debug, program		Pupils can create a simple program.	Pupils can create and debug a simple program	H (A&B)	1 - use sequence, selection, and repetition in programs 2 - work with variables and various forms of input and output	sequence, selection, repetition,variables,inpu t, output		Pupils can design and write a program to accomplish a specific task.	Pupils can use events, control and sensing in a program.	1 - use sequence, selection, and repetition in programs 2 - work with variables and various forms of input and output	1 - use sequence, selection, and repetition in programs 2 - work with variables and various forms of input and output	
	C	use logical reasoning to predict the behaviour of simple programs	Predict		Pupils can predict the behaviour of an algorithm.	use logical reasoning to predict the behaviour of simple programs	I (A&C)	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	logic, algorithm, debug		Pupils can predict the behaviour of a simple program and detect errors.	Pupils can predict the behaviour of an algorithm and detect and correct errors in it using logical reasoning	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	
							J	understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration	network, internet, www			Pupils can understand the basic design of a network and that different devices communicate with each other using the network.	1 - understand computer networks, including the internet 2 - how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration	1 - understand computer networks, including the internet 2 - how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration	
Digital Literacy	D	use technology purposefully to create, organise, store, manipulate and retrieve digital content	Create, save, open, delete	Web Browser, Revelation Natural Art, Microsoft Word	1 - Pupils explore information from various sources, showing they know that information exists in different forms. 2 - They use ICT to work with text, images and sound to help them share their ideas.	use technology purposefully to create, organise, store, manipulate and retrieve digital content	L (D)	select, use and combine a variety of software (including internet services) 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	design, write, debug, program, collect, analyse, evaluate, data	Powerpoint, Excel, Publisher, Moviemaker, Audacity, Web browser	1 - Pupils use ICT to save information and to find and use appropriate stored information, following straightforward lines of enquiry. 2 - They use ICT to generate, develop, organise and present their work. They share and exchange their ideas with others.	select, use and combine a variety of software (including internet services) on a range of digital devices to design and create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	select, use and combine a variety of software (including internet services) 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	select, use and combine a variety of software (including internet services) 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	
	E	recognise common uses of information technology beyond school	Discussion		Pupils can recognise common uses of IT beyond school.	Pupils can recognise common uses of IT beyond school.					Pupils can recognise common uses of IT beyond school.				
	F	1 - use technology safely and respectfully, keeping personal information private 2 - identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	E-Safety		Pupils can understand about information online. About how it is not necessarily reliable. About how information is shared with the whole world.	1 - use technology safely and respectfully, keeping personal information private 2 - identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	M (F)	use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	E-safety			1 - use technology safely and respectfully, keeping personal information private 2 - identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	Pupils can use technology safely and respectfully especially with respect to online technology	use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
							K (F)	use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	search, effective,ranking, understanding, verification, reliability			Pupils understand the need for care in framing questions when collecting, finding and interrogating information. They interpret their findings, question plausibility and recognise that poor-quality information leads to unreliable results.	use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	