



Computing Knowledge and Skills Progression Map

Year group/Expected level	Information Technology Skills	Computer Science Skills	Digital Literacy Skills	Domain
Nursery <i>Please refer to the EYFS planning for key themes and to the EYFS Statutory Framework for the 7 Areas of Learning(AoL) and Development Matters (DM) for the Early Learning Goals (ELGs).</i> <i>The aspects for developing pre-computing skills are taken from every AoL and the statements in the adjacent columns are accompanied with the initials of the AoL (Please see below for a complete list of AoLs and their ELGs.)</i> <i>Full details of the EYFS Curriculum can be found in the EYFS Folder under Curriculum.</i>	Developmental skills which are key for children to be able to access the 3 elements of computing:			
	Use one-handed tools and equipment. (PD)	Use talk to organise themselves and their play: “Let’s go on a bus... you sit there... I’ll be the driver.” (CL)	Make healthy choices about activity. (PSED)	
The Early Years Foundation Stage (EYFS) Learning and Development has seven Areas of Learning and 17 Early Learning Goals: ❖ Communication and Language (CL) ➤ Listening, Attention and Understanding ➤ Speaking ❖ Personal, Social and Emotional Development (PSED) ➤ Self-Regulation ➤ Managing Self ➤ Building Relationships	❖ Physical Development (PE) ➤ Gross Motor Skills ➤ Fine Motor Skills ❖ Literacy (L) ➤ Comprehension ➤ Word Reading ➤ Writing ❖ Mathematics (M) ➤ Number ➤ Numerical Patterns		❖ Understanding The World (UW) ➤ Past and Present ➤ People, Culture and Communities ➤ The Natural World ❖ Expressive Art and Design (EAD) ➤ Creating with Materials ➤ Being Imaginative and Expressive	
Key vocabulary linked specifically to computing terms and language: Computer, keyboard, mouse, numbers, letters.				
Progression in computing knowledge and skills: ❖ Children recognise that a range of technology is used in places such as their home and school. ❖ They play with equipment that simulates control devices (push button toys). ❖ Explore outcomes when individual buttons are pressed on a robot.				

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Reception <i>Please refer to the EYFS planning for key themes and to the EYFS Statutory Framework for the 7 Areas of Learning(AoL) and Development Matters (DM) for the Early Learning Goals (ELGs).</i> <i>The aspects for developing pre-computing skills are taken from every AoL and the statements in the adjacent columns are accompanied with the initials of the AoL (Please see below for a complete list of AoLs and their ELGs).</i> <i>Full details of the EYFS Curriculum can be found in the EYFS Folder under Curriculum.</i>	<i>Developmental skills which are key for children to be able to access the 3 elements of computing:</i>			
	Develop their small motor skills so that they can use a range of tools competently, safely and confidently. (PD)	- Use talk to help work out problems and organise thinking and activities. (CL) - Explain how things work and why they might happen. (CL)	Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of ‘screen time’ (PSED)	
The Early Years Foundation Stage (EYFS) Learning and Development has seven Areas of Learning and 17 Early Learning Goals: ❖ Communication and Language (CL) ➤ Listening, Attention and Understanding ➤ Speaking ❖ Personal, Social and Emotional Development (PSED) ➤ Self-Regulation ➤ Managing Self ➤ Building Relationships	❖ Physical Development (PE) ➤ Gross Motor Skills ➤ Fine Motor Skills ❖ Literacy (L) ➤ Comprehension ➤ Word Reading ➤ Writing ❖ Mathematics (M) ➤ Number ➤ Numerical Patterns		❖ Understanding The World (UW) ➤ Past and Present ➤ People, Culture and Communities ➤ The Natural World ❖ Expressive Art and Design (EAD) ➤ Creating with Materials ➤ Being Imaginative and Expressive	
Key vocabulary linked specifically to computing terms and language: Computer, keyboard, mouse, screen, numbers, letters, games, selecting a game, whiteboard, video, sound, headphones, internet, robot, equipment, touch pad, on/off, icon.				
Progression in computing knowledge and skills: ❖ Children recognise that a range of technology is used in places such as their home and school. ❖ They play with equipment that simulates control devices (push button toys). ❖ Explore outcomes when individual buttons are pressed on a robot. ❖ They select and use technology for particular purposes. ❖ Begin to use a keyboard (with support) and notice the effect on screen.		❖ They learn to play simple games on the computer. ❖ With help can search for and choose images from the internet. ❖ With support can enter text into a search engine to find specific given web sites. ❖ Begin to develop simple classification skills by carrying out simple sorting activities. ❖ Understand that cameras can take still and moving images (video). ❖ Understand that technological devices can be used to record and play back sounds.		

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Year 1 <i>Please refer to the 3BM scheme of work for detailed planning guidance and the knowledge organisers.</i> <i>For further information please also see National Curriculum programme of study for Computing.</i>	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	- Can use a mouse, finger etc. to select & move items on the screen, assembling or matching objects. - Can take a digital picture or video clip, or record a sound, as part of a task. - Can use some software to create / assemble digital content for clear purpose, (could be text, images, animation, graph, sound, etc.) - Can make straight-forward edits of their digital work (text, image, sound etc.) using simple editing tools, to both correct or improve it. - Can access a resource and then find answers to straight-forward questions. - Can recognise and talk about some common uses of IT in the world around them. - Can save and retrieve some work (and print if appropriate to task).	- Can give simple instructions to control a device, like a 'floor' robot, or on-screen object. - Can use trial and error to produce an accurate set of simple instructions, to control a floor 'robot' or on-screen object. - Can name some digital devices that need precise instructions (algorithms) to work / be controlled. - Understands that software may represent a fantasy situation and can make sensible (logical) decisions/choices when 'playing' a straight-forward 'game'. - Understands some basic computing terms and concepts, such as ... algorithm, program, sequence, etc.	- Knows about the Internet and beginning to understand some key, age appropriate, safety 'rules'. - Can share some information with others, ('closed' blog). - Can find some straight-forward information from a 'safe', selected online resource.	❖ Cyber walk. ❖ I can sort objects. ❖ Design a plate. ❖ Sharing my iceberg work. ❖ Beebot journey. ❖ I am a problem solver. ❖ Design a plate. ❖ Smartie the Penguin. ❖ How does my garden grow?

Year group/ Expected level	NC Pupils should be taught	Information Technology Skills	Computer Science Skills	Digital Literacy Skills	Domain
Year 1 Contd.					
Key year group vocabulary: Technology, start up, shut down, save, application, text, program, mouse, keyboard, mouse, communicate, e-safety, personal information, digital, create, command, debug, input, output, save, retrieve, print, rotate, repeat, algorithm, device, reasoning, safe, common uses of IT, image, text, font, edit, digital, sequence, cursor, click to select, keyboard, resize, organise, instructions, explain, label, adjust size, type, rules.			End of learning sequence questions (Assess and review) ❖ Can you think of some common uses of IT in the world? ❖ What sort of information is personal and why is it important to follow safety rules when online? ❖ What is a search engine? When would we use one?		
KS1 progressive vocabulary across the 3 computing aspects (some of the below will be a repetition of the words/terminology listed in the key vocabulary box above). These are words that, wherever possible, pupils become should be familiar with. This in turn will broaden their computing vocabulary, knowledge and understanding.					
Information Technology Screen, mouse, image, keyboard, paint, words, word banks, videos, colour, brush, tools, settings, undo, redo, text, image, size, launch, application, software, window, minimise, restore, move, screen, close, click, drag, log on, log off, click, double click, command, effect, document, digital sound, photograph, capture, collection, chart, retrieve, save.		Computer Science Algorithm, instruction, order, debug, program, turn, left, right, clockwise, anti-clockwise, blocks, sequence, repeat.		Digital Literacy Safe, meet, accept, reliable, online, trusted, adult, safety, personal information, private, think first, share, don't share, stranger, danger.	

Year group/ Expected level	NC Pupils should be taught	Information Technology Skills	Computer Science Skills	Digital Literacy Skills	Domain
Year 2 <i>Please refer to the 3BM scheme of work for detailed planning guidance and the knowledge organisers.</i> <i>For further information please also see National Curriculum programme of study for Computing.</i>	Use technology purposefully to create, organise, store, manipulate and retrieve digital content Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	- Can use some software to create / assemble digital content for clear purpose, (could be text, images, animation, graph, sound, etc.) - Can make straight-forward edits of their digital work (text, image, sound etc.) using simple editing tools, to both correct or improve it. - Can navigate their way within some straight-forward digital content, such as selected history content, to find some specific information. - Can create and amend a (multi-media) resource for a clear purpose, starting to show a sense of the 'audience'. - Can create & store some data, (simple data file), and then find answers to straight-forward questions. - Can recognise and talk about some common uses of IT in the world around them. - Can save and retrieve work (and print if appropriate to task).	- Can give a set of simple instructions to program (control) a device, like a 'floor' robot, or on-screen object. - Can use trial and error to produce an accurate set of 'instructions' to control a floor 'robot' or on-screen object; refine (de-bug) and improve / make changes. - Can talk about some electronic devices and understands that they need precise instructions (algorithms) to work / be programmed (controlled). - Demonstrates logical 'trial and error' when using a computer simulation or game, and predicts the consequences of decisions/choices made. - Understands some basic computing terms and concepts, such as: (school) network, algorithm, program, debug, editing, website, etc.	- Can talk about key online safety 'rules' and knows where to go / report if a problem. - Can create and share some information online, (such as in school MLE, 'closed' email system or blog), understanding need to be respectful and safe. - Can find some straight-forward information from (selected) website resource(s) and knows not all websites 'good to use'.	❖ Minibeasts. ❖ Finding out . ❖ Getting to school safely. ❖ Do you like my blog? ❖ Say no to graffiti. ❖ How does it work. ❖ Exploring block coding with Scratch. ❖ Words, words, words. ❖ Demolition Robot. ❖ Instructions and recipes. ❖ I can debug. ❖ Let's send a message. ❖ Follow my footprint. ❖ Digiduck Dilemmas.

Year group/ Expected level	NC Pupils should be taught	Information Technology Skills	Computer Science Skills	Digital Literacy Skills	Domain
Year 2 Contd.					
Key year group vocabulary: Software, create, assemble digital content, purpose, graph, chart, image, edit, tools, resource, data, save, retrieve, network, decision, choice, device, data file, common uses of IT, animation, trial and error, on-screen.		End of learning sequence questions (Assess and review) ❖ What is an algorithm? ❖ Why is a computer good for storing information? ❖ What do we mean by data?			
KS1 progressive vocabulary across the 3 computing aspects (some of the below will be a repetition of the words/ terminology listed in the key vocabulary box above). These are words that, wherever possible, pupils should become familiar with. This in turn will broaden their computing vocabulary, knowledge and understanding.					
Information Technology Screen, mouse, image, keyboard, paint, words, word banks, videos, colour, brush, tools, settings, undo, redo, text, image, size, launch, application, software, window, minimise, restore, move, screen, close, click, drag, log on, log off, click, double click, command, effect, document, digital sound, photograph, capture, magnified, collection, chart, retrieve, save.		Computer Science Algorithm, instruction, order, debug, program, turn, left, right, clockwise, anti-clockwise, blocks, sequence, repeat.		Digital Literacy Safe, meet, accept, reliable, online, trusted, adult, safety, personal information, private, think first, share, don't share, stranger, danger.	

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Year 3 <i>Please refer to the 3BM scheme of work for detailed planning guidance and the knowledge organisers.</i> <i>For further information please also see National Curriculum programme of study for Computing.</i>	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. To design, write and 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 output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	- Can use some software to create / assemble digital content for clear purpose, (could be text, images, animation, graph, sound, etc.) - Can make straight-forward edits of their digital work (text, image, sound etc.) using simple editing tools, to both correct and improve it. - Can create and amend a (multi-media) resource that shows a sense of 'audience'. - Can navigate their way within some straight-forward digital content, such as selected history content, to find some specific information. - Can create & store some data, (simple data file), and then find answers to straight-forward questions. - Can recognise and talk about some common uses of ICT in the world around them.	- Demonstrates logical 'trial and error' when using a computer simulation, 'model' or game, and predicts some consequences of decisions/choices made. - Can produce an accurate set of simple instructions (code), to program (control) an on-screen object (or floor 'robot'), using trial and error to refine (de-bug). - Can also talk about how the sequence of events in some simple instructions (algorithms) or code are 'working'. - Can talk about some digital devices beyond school, that need precise instructions (algorithms) to work / be programmed (controlled). - Knows some relevant computing terms such as computer network, Internet, algorithm, program, World Wide Web, website, etc.	- Can talk about key online safety 'rules' and knows where to go / report if a problem. - Can create and share some information online (such as in school MLE, email/blog), understanding need to be respectful and safe. - Can find some straight-forward information from (selected) website resource(s) and knows not all websites 'good to use'.	❖ Do you like my presentation? ❖ Creating a tessellation. ❖ Finding out about Teacher based – retrieving documents. ❖ I can make my own game. ❖ Create a duck and fly. ❖ Creating a Kodu. ❖ I can use block coding. ❖ How does that work? ❖ I can make my own game using 2DIY? ❖ Words, words, words. ❖ Would I lie to you? ❖ Evaluating information. ❖ Internet scenario. ❖ Safe surfing with dongle.

Year group Expected level	NC Pupils should be taught	Information Technology Skills	Computer Science Skills	Digital Literacy Skills	Domain
Year 3 Contd.	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 Use search technologies effectively, appreciate how results are selected and ranked Understand the opportunities [networks] offer for communication and collaboration Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Can save and retrieve work from electronic folders (and print if appropriate to task).			
Key year group vocabulary: Software, editing tools, improve, amend, correct, alter, change, code, World-Wide Web, website, email, blog, electronic folders, communication, content.			End of learning sequence questions (Assess and review) ❖ Can you think of some computing terms? ❖ What is meant by an electronic folder? ❖ Can you think of an important online safety rule?		
Lower KS2 progressive vocabulary across the 3 computing aspects (some of the below will be a repetition of the words/ terminology listed in the key vocabulary box above). These are words that, wherever possible, pupils should become familiar with. This in turn will broaden their computing vocabulary, knowledge and understanding.					
Information Technology Draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, link, minimise, restore, move, split, folder, print, search, password, screenshot, snipping tool, shift, highlight, cursor, toolbar, spellcheck, embed, file format, animate, still image, record, insert, table, database.		Computer Science Decompose, logical sequence, flowchart, algorithm, correct, errors, program, instructions, commands, forward, left, right, screen.		Digital Literacy Filter, Google, search engine, image, subject, address, communicate, sender, safe, secure, internet, world wide web, social media, accept, reliable, trusted, password, cyber bullying, account, private, public.	

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Year 4 <i>Please refer to the 3BM scheme of work for detailed planning guidance and the knowledge organisers.</i> <i>For further information please also see National Curriculum programme of study for Computing.</i>	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 To design, write and 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 output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	- Can use software to create and combine content (be it text, pictures / images, graphs, animation, podcast etc.) for meaningful purpose(s). - Can also edit and amend their digital work (text, image, sound etc.) using simple editing tools, to both correct and improve it. - Can create and amend a multi-media resource that shows a sense of 'audience'. - Can navigate their way within range of (selected) online content, to find specific information. - Can include some information / content from an online resource within a 'presentation'. - Can use a data file to find answers to straight-forward questions, (such as through data logging or a survey or a prepared database or a simple spreadsheet, etc).	- Demonstrates logical choices and prediction when using a computer simulation, 'model' or game and can make simple edits to solve a problem. - Can produce, debug and edit an accurate sequence of instructions, include use of repeat, to control on-screen objects. - Can plan and create a program using decomposition; includes the use of selection (IF/ELSE) and/or variables. - Can talk about different types of input options e.g. motion /touch, microphone, data logging sensor; and output options e.g. switch, speakers, screen etc. - Developing and using a wider computing 'vocabulary' relevant to work, such as de-bug, Apps, data logging, search engine, spam, Wiki, etc.	- Can talk about key online safety 'rules', knows what may be unacceptable behaviour, and knows where to go / report if a problem. - Can create and share some information online (such as school MLE, email / blog), demonstrating need to be respectful and safe. - Can find straight-forward information from (selected) website resource(s) and knows sites can contain, true or false facts, or opinion.	❖ Weather data. ❖ Creating an alien landscape. ❖ Dancing with Scratch. ❖ I can create a game using j2code. ❖ Creating a Game in 2DIY. ❖ Apple Hunt. ❖ Dancing with Scratch. ❖ Words, words, words. <i>(Ongoing link to other areas of the curriculum)</i> ❖ Apple Hunt. ❖ Internet search and presentation. ❖ Internet scenario card.

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Year 4 Contd.	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. Use search technologies effectively, appreciate how results are selected and ranked. Understand the opportunities [networks] offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Can save and retrieve work from electronic folders (and print if appropriate to task).			
Key year group vocabulary: Content, podcast, animation, image, text, multi-media, accurate, selection, combine, result, respectfully, responsibly, acceptable and unacceptable online behaviour, facts, true, false, survey, data-logging, search engine, spam, Wiki, Apps.			End of learning sequence questions (Assess and review) ❖ How would you go about amending some text? ❖ Can you explain how a spreadsheet is useful when logging the outcomes of a survey?		
Lower KS2 progressive vocabulary across the 3 computing aspects (some of the below will be a repetition of the words/ terminology listed in the key vocabulary box above). These are words that, wherever possible, pupils should become familiar with. This in turn will broaden their computing vocabulary, knowledge and understanding.					
Information Technology Draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, link, minimise, restore, move, split, folder, print, search, password, screenshot, snipping tool, shift, highlight, cursor, toolbar, spellcheck, embed, file format, animate, still image, record, insert, table, database.		Computer Science Decompose, logical sequence, flowchart, algorithm, correct, errors, program, instructions, commands, forward, left, right, screen.	Digital Literacy Filter, Google, search engine, image, subject, address, communicate, sender, safe, secure, internet, world wide web, social media, accept, reliable, trusted, password, cyber bullying, account, private, public.		

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Year 5 <i>Please refer to the 3BM scheme of work for detailed planning guidance and the knowledge organisers.</i> <i>For further information please also see National Curriculum programme of study for Computing.</i>	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 and 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 output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	- Can use software effectively to create, design and manipulate for purposeful outcomes, such as DT, art or music projects. - Can combine resources from different sources into a digital presentation, showing clear sense of intended purpose and 'audience'. - Can find specific and valid information (i.e. be discerning) using sensible key words / search terms, from (selected) online web content, as fits the task. - Can (collect), analyse and draw conclusions from data, (such as through data logging or a survey or a prepared database or through manipulating a spreadsheet, etc). - Can save and retrieve work from various electronic folders on network (and controlled online environments where relevant).	- Can test, debug and edit a program that accomplishes a given goal, (simple computer 'game' or model or simulation), to solve a problem. - Can create an accurate program to accomplish a given goal, including the use of repetition (loops), selection (IF/ELSE) and variables. Can use logical reasoning to deconstruct programs, evaluate their effectiveness and make them more challenging and / or 'elegant' / efficient. - Can use different types of input options and output options such as through sensing and control 'kits' and/or software, to solve a problem. - Has an understanding of computer networks (local, internet services and WWW).	- Can talk about key online safety 'rules', knows what may be unacceptable behaviour, and knows where to go / report if a problem. - Can demonstrate 'web-savvy' awareness, from a range of given scenarios, including conduct, contact and content 'risks' and issues. - Can communicate and collaborate online (such as in MLE blog/Wiki /forum), demonstrating respectful and safe behaviours. - Understands some simple steps to 'validate' information found on the Web, and appreciates how search results are selected and ranked.	❖ Design a poster. ❖ Can you finish my story? ❖ Simply delicious. ❖ Creating a multi-level platform game in 2DIY. ❖ Building a sustainable house. ❖ Starting with Scratch. ❖ Logo block of flats. ❖ Robot Rampage. ❖ Tell me a joke. ❖ Stop! Check!

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Year 5 Contd.	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 Use search technologies effectively, appreciate how results are selected and ranked Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.		Developing and using a wider computing 'vocabulary' in context of task, such as search engine, URL, variable, validate, digital footprint, spam, Wiki, etc.		
Key year group vocabulary: Manipulate, create, design, outcome digital presentation, purpose, audience, analyse, spam, valid, validate, URL, risks, content, identify, variables, multiples.		End of learning sequence questions (Assess and review) ❖ Explain the difference between hardware and software ❖ What is meant by Spam? ❖ Why is it important not to publish other people’s pictures or tag them on the internet without permission?			
Upper KS2 progressive vocabulary across the 3 computing aspects (some of the below will be a repetition of the words/ terminology listed in the key vocabulary box above). These are words that, wherever possible, pupils should become familiar with. This in turn will broaden their computing vocabulary, knowledge and understanding.					
Information Technology Window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, zoom, eraser, measurement, guide, audio, record, edit, podcast, digital content, downloadable, production, evaluation, screening, upload, insert, table, spreadsheet, cell, row, column, formula, calculate, edit, ascending, descending, Word, PowerPoint.		Computer Science Flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, script, repeat, commentary, sequence, software, hardware.		Digital Literacy Safety online, trustworthy, message, browser, spam, inbox, junk, sender, address bar, subject, secure, adverts, reporting, anonymous, https, site, domain.	

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Year 6 <i>Please refer to the 3BM scheme of work for detailed planning guidance and the knowledge organisers.</i> <i>For further information please also see National Curriculum programme of study for Computing.</i>	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 and 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 output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	- Can use software effectively to create, design and manipulate for purposeful outcomes, such as DT, art or music projects. - Can combine resources from different sources into a digital presentation, evaluate it, and show clearly intended purpose and 'audience' - Can be discerning and find valid information using sensible key words / search terms, from a range of online web content, as fits the task. - Can (collect), analyse, evaluate and draw conclusions from data, such as through survey, database or spreadsheet, etc. - Can save and retrieve work from various electronic folders on network (and controlled online environments where relevant).	- Can test, debug and edit a program that accomplishes a given goal, (simple computer 'game' or model or simulation), to solve a problem. - Can create & develop programs, by planning, debugging and applying programming skills of repetition (loops), selection (IF/ELSE) and variables, to accomplish specific goals. - Can use logical reasoning to deconstruct programs, evaluate their effectiveness and make them more challenging and / or 'elegant' / efficient. - Can use different types of input options and output options such as through sensing and control 'kits' and/or software to solve a problem. - Has an understanding of computer networks (local, internet services and WWW).	- Can demonstrate 'web-savvy' awareness, from a range of given scenarios, including conduct, contact and content 'risks' and issues. - Can discuss range of safety and eSecurity (privacy) issues and knows range of ways to report concerns or inappropriate behaviour. - Can communicate and collaborate online (such as in MLE blog/Wiki /forum), demonstrating respectful and safe behaviours. - Can check the results of web searches i.e. how useful, relevant, reasonable, valid, accurate, and appreciates how search results are selected & ranked.	❖ My exciting world landmarks. ❖ Do you agree? ❖ Party time. ❖ Codebug. ❖ Have fun with scratch. ❖ Logo Block of Flats. ❖ Words, words, words. ❖ What is the internet? ❖ What's wrong here? ❖ How fake is that? ❖ Are you a cyber-Superhero? ❖ Internet scenario -- How can we trust the internet? (All about explorers)

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Key year group vocabulary: Key words, model, simulation, test, digital footprint, demonstrate, computing vocabulary, URL, HTML, https, effectiveness, evaluate, option, computer kit, deconstruct, conclusions.			End of learning sequence questions (Assess and review) ❖ Why is it important to keep passwords private? ❖ Can you explain how an algorithm works? ❖ What is a computer network?		
Upper KS2 progressive vocabulary across the 3 computing aspects (some of the below will be a repetition of the words/ terminology listed in the key vocabulary box above). These are words that, wherever possible, pupils should become familiar with. This in turn will broaden their computing vocabulary, knowledge and understanding.					
Information Technology Window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, zoom, eraser, measurement, guide, audio, record, edit, podcast, digital content, downloadable, production, evaluation, screening, upload, insert, table, spreadsheet, cell, row, column, formula, calculate, edit, ascending, descending, Word, PowerPoint.			Computer Science Flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, script, repeat, commentary, sequence, software, hardware.		Digital Literacy Safety online, trustworthy, message, browser, spam, inbox, junk, sender, address bar, subject, secure, adverts, reporting, anonymous, https, site, domain.