

Computing Progression 2025 - 26

Year 1												
EYFS	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:
	Unit: Computer systems and networks – Technology around Us		Unit: Creating Media – Digital painting		Unit: Programming A – Moving a robot		Unit: Data and Information – Grouping data		Unit: Creating Media – Digital Writing		Unit: Programming B – Programming animations	
	Prior Learning: Children exposed to computing technology within YR and had experience with the iPads.		Prior Learning: Children exposed to various paint / editing software with iPads and PCs.		Prior Learning: Children exposed to understanding of giving and following instructions.		Prior Learning: Children exposed to grouping and labelling household / school items within YR.		Prior Learning: Children exposed to the key components of a computer earlier in Y1.		Prior Learning: Children have learnt to program a Bee-Bot earlier in Y1. Prior learning of four directional movements.	
	Big Question - Can I recognise technology in school and use it responsibly?		Big Question – Can I create my own digital painting?		Big Question – Can I program a bee-bot to move in all four directions?		Big Question – Can I compare groups and record my answers?		Big Question – Can I understand how to type text on a physical keyboard?		Big Question – Can I code my Sprite to move in all four directions?	
	Strands: CS, ET, IT, SS	Curriculum links: 1.4, 1.5, 1.6	Strands: CM, DD, ET	Curriculum links: 1.4	Strands: AL, DD, IT, PG	Curriculum links: 1.1, 1.2, 1.3, 1.5	Strands: DI	Curriculum links: 1.4, 1.6	Strands: CM, DD, ET	Curriculum links: 1.4, 1.6	Strands: AL, DD, PG	Curriculum links: 1.1, 1.2, 1.3, 1.4
	To identify technology.	<i>Name the main parts of a computer.</i>	To identify and understand which freehand tools are suitable to create a digital painting.	<i>Name the most suitable tools to draw lines.</i>	To explain and enact what a given command will do.	<i>Name and describe the movements of the four directions.</i>	To identify that objects can be counted.	<i>Identify attributes of an object.</i>	To understand that a keyboard is used to enter text into a computer.	<i>Name the key features of a keyboard.</i>	To choose a command for a given purpose.	<i>Name the four directional movements.</i>
	To identify a computer and its main parts.	<i>How to type basic words, including their name, on a keyboard and edit text within a word document.</i>	To understand how to use shape and line tools.	<i>How to create marks and shapes with the square and line tool.</i>	Compare the differences between forwards and backwards commands to make a sequence.	<i>Identify the key features of a Bee-Bot and understand how they work.</i>	To understand that objects can be grouped by the properties.	<i>Group objects together based on their properties to answer questions.</i>	To recognise the shift key changes the output of keys.	<i>How to add and remove typed text.</i>	Understand that a series of commands can be joined together.	<i>How to basic blocks of code to move Sprite around the screen.</i>
	To identify key rules to keep us safe and healthy when using technology.	.	To understand painting a picture on a computer and on paper.	<i>How to create dots using colour.</i>	To combine the four direction commands to make sequences.	<i>Write simple code to move the Bee-Bot.</i>	Understand that information can be presented in many different ways.		To understand that text can be added, removed or change appearance.	<i>How to use key features such as underline, bold, and italic.</i>	To explain that each sprite has its own instructions (code).	<i>How to design and create a project containing my algorithm.</i>
	Cross curriculum Links: N/A		Cross curriculum Links: Art & Design		Cross curriculum Links: English - Writing		Cross curriculum Links: N/A		Cross curriculum Links: English - Writing		Cross curriculum Links: N/A	
	Education for a Connected World: - Health, well-being and lifestyle - Self Image and identity - Managing Online Information.		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: N/A	
	Future Learning: Computer systems and networks - IT around Us (Year 2)		Future Learning: Creating media – Digital photography (Year 2)		Future Learning: Programming A – Robot algorithms (Year 2)		Future Learning: Data and Information – Pictograms (Year 2)		Future Learning: Creating Media – Desktop publishing (Year 3) Creating Media – Webpage creation (Year 6)		Future Learning: Programming A – Robt algorithms (Year 2)	
	Key vocabulary: technology, computer, mouse, trackpad, keyboard, screen, double-click, typing.		Key vocabulary: Paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush size, pictures, painting, computers.		Key vocabulary: Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program.		Key vocabulary: Object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most fewest, least, the same		Key vocabulary: Word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse,		Key vocabulary: ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset,	

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					<i>select, font, undo, redo, format, compare, typing, writing</i>	<i>algorithm, predict, effect, change, value, instructions, design</i>
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Year 2												
EYFS	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:
	Unit: Computer systems and networks – IT Around Us		Unit: Creating media – Digital photography		Unit: Programming A – Robot algorithms		Unit: Data and information - Pictograms		Unit: Creating Media – Digital Music		Unit: Programming B – Programming quizzes	
	Prior Learning: Children introduced to basic computing in Year 1. Children able to identify main parts of a computer and able to type basic words.		Prior Learning: Children introduced to digital painting in Year 1. Children able to use tools to create lines, shapes and dots of colour.		Prior Learning: Children programmed a Bee-Rot to move in all four directions in Year 1. Children understand basic commands and predict the movement outcomes of the Bee-Bot.		Prior Learning: Children labelled objects and grouped them based on different properties in Year 1.		Prior Learning: Children previously exposed to listening to music and understanding how we think and feel.		Prior Learning: Children exposed sequences and instructions in Year 1.	
	Big Question – Can I identify IT systems in school and beyond and use it safely?		Big Question – Can I capture a photograph using a digital device then use a range of tools to improve the photo?		Big Question – Can I debug a simple program?		Big Question – Can I group different objects by attribute and present my findings using a pictogram?		Big Question – Can I use a computer / device to create patterns of music and suggest improvements?		Big Question – Can I use ScratchJr to create my own quiz?	
	Strands: CS, IT, NW, SS	Curriculum links: 1.4, 1.5, 1.6	Strands: CM, CS, DD, ET	Curriculum links: 1.4, 1.5, 1.6	Strands: AL, DD, PG	Curriculum links: 1.1, 1.2, 1.3, 1.4	Strands: DI, ET	Curriculum links: 1.4, 1.6	Strands: CM, DD, DI, ET	Curriculum links: 1.4	Strands: DD, PG	Curriculum links: 1.1, 1.2, 1.3
	To identify the uses and features of IT within and beyond the school environment.	<i>Name different types of IT devices.</i> <i>Explain and describe different uses of computers.</i>	To understand how to take a photograph using a digital device.	<i>Use a digital device to capture a photograph in both landscape and portrait.</i>	To identify and describe that a series of instructions are a sequence.	<i>How to choose a series of instructions that can be run as a program.</i>	To understand and use a tally chart to collect data.	<i>Describe how objects can be grouped by different attributes.</i>	To identify that computers can be used to play sounds of different instruments	<i>Use a computer / iPad to experiment with different sounds / musical patterns.</i>	To describe a series of instructions as a ‘sequence’.	<i>Name different series of words that can be used to create a sequence.</i>
	To understand how IT can benefit our lives.	<i>List the different uses of IT and identify the rules to keep us safe.</i>	To identify the tools used to improve an image.	<i>Use editing tools to improve a photograph and the effect of light has on the photo.</i>	To understand what happens when we change the order of instructions.	<i>How to create and run a program with a given set of instructions.</i>	To compare objects that have been grouped by attribute.	<i>Enter data into a computer.</i>	To identify that the same pattern can be represented in different ways.	<i>Use a computer to view data in different formats.</i>	To recall that a series of instructions can be issued before they are enacted.	<i>Explain what happens if the order of instructions changes.</i>
	To explain how to use IT safely.		To describe what makes a good photograph.	<i>Describe the reasons why a photograph may need to be improved.</i>	To predict the outcome of a program.	<i>How to debug a program.</i>	Understand how a computer program can present information in different ways.	<i>Use a computer to answer questions.</i> <i>Use a computer to answer comparison questions.</i>	To compare playing music on instruments with making music on a computer.	<i>Compose a musical rhythm and a melody.</i> <i>Play the same music in different ways (tempo) and its affects.</i>	To use logical reasoning to predict the outcome of a program.	<i>Create and debug a program the children have written.</i> <i>To run a program on a device.</i>
	Cross curriculum Links: N/A		Cross curriculum Links: Art & Design		Cross curriculum Links: N/A		Cross curriculum Links: Maths		Cross curriculum Links: Music		Cross curriculum Links: N/A	
	Education for a Connected World: • Health, wellbeing and lifestyle.		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: N/A	
	Future Learning: Computing systems and networks – Connecting Computers (Year 3)		Future Learning: Creating media – Stop-frame animation (Year 3)		Future Learning: Programming A – Sequencing sounds (Year 3)		Future Learning: Data and Information – Branching databases (Year 3)		Future Learning: Creating Media – Audio production (Year 4)		Future Learning: Programming B – Making Quizzes (Year 5)	
	Key vocabulary: Information Technology (IT), computer, barcode, scanner / scan.		Key vocabulary: Device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light, sources,		Key vocabulary: Instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition.		Key vocabulary: More than, less than, most, least, common, popular, organise, data, object, tally, chart, votes, total, pictogram, enter, data, compare,		Key vocabulary: Music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, notes, create, emotion, beat, instrument, open, edit		Key vocabulary: Sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm,	

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		<i>flash, focus, background, editing, filter, format, lighting.</i>		<i>objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing</i>		<i>build, match, compare, debug, features, evaluate, decomposition, code.</i>
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Year 3												
EYFS	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:
	Unit: Computing systems and networks – Connecting computers		Unit: Creating media – Stop-frame animations		Unit: Programming A – Sequencing sounds		Unit: Data and information – Branching databases		Unit: Creating Media – Desktop publishing		Unit: Programming B – Events and actions in programs	
	Prior Learning: Children explored different technologies and uses of IT devices in Year 1&2. Children able to identify the main parts of a computer and different uses of IT.		Prior Learning: Children explored digital photography in Year 2. Children learnt how to take a photograph and edit using the correct tools.		Prior Learning: Children explored programming via Bee-Bots in Year 1, and robot algorithms in Year 2 in addition to ScratchJr.		Prior Learning: Children explored data and information in KS1 (grouping Y1 & pictograms Y2).		Prior Learning: Children have knowledge and understanding of using digital devices to combine text and images building on work from KS1 (Creating Media units).		Prior Learning: Children have experience of programming throughout KS1. Programming A (Spring 1, Y3) children introduced to Scratch programming environment and the concept of sequences.	
	Big Question – Can I understand and identify the key components of a computer network?		Big Question – Can I plan and create a stop-frame animation?		Big Question – Can I create and programme a musical instrument using Scratch?		Big Question – Can I identify an object, using yes / no answers, in a branching database?		Big Question – Can I choose a suitable layout for a given purpose?		Big Question -	
	Strands: CS, IT, NW	Curriculum links: 2.2, 2.4, 2.6	Strands: CM, DD, ET, NW	Curriculum links: 2.6, 2.7	Strands: AL, CM, DD, ET, PG	Curriculum links: 2.1, 2.2, 2.3, 2.6	Strands: DD, DI, ET	Curriculum links: 2.6	Strands: CM, DD, ET, IT	Curriculum links: 2.5, 2.6	Strands: DD, ET, PG	Curriculum links: 2.1, 2.2, 2.3, 2.6
	To identify input and output devices.	<i>Describe the differences between an input and output device.</i>	To understand that animation is a sequence of pictures and photographs.	<i>Break a story into settings, character and events.</i>	To explain what a sequence is and that a program is a sequence of commands.	<i>How to identify and build a sequence of commands.</i>	To identify the attributes to collect data about an object.	<i>How to create yes / no questions as a way to group attributes.</i>	To recognise how text and images can be used together to convey information.	<i>Describe the differences between landscape and portrait.</i>	To explain what a sequence is and understand that programs start with an input.	<i>How to build a sequence of commands.</i>
	To recognise that digital devices can change how we work.	<i>Use a digital device for different activities.</i>	To understand the main components to plan and create an animation.	<i>How to plan and create a storyboard.</i>	To understand that programs start because of an input.	<i>How to combine and order commands in a program.</i>	To understand that a database is helpful in real world situations.	<i>How to arrange objects into a tree structure.</i>	To define landscape and portrait as two different page orientations.	<i>Identify a placeholder.</i>	To identify that a program includes sequences of commands.	<i>How to order commands within a program.</i>
	To understand how a computer can be connected to share information.	<i>Explain how information is passed between devices.</i>	To evaluate the quality of a animation.	<i>Draw a sequence of pictures to create an effective flip book animation on paper.</i>	To understand that the order of commands can affect a program’s output.	<i>How to create a sequence of commands to create a final project.</i>		<i>How to compare two branching database structures.</i>	To recognise that DTP pages can be structured with placeholders.	<i>How to add, edit, and organise images onto a placeholder.</i>	To identify that the sequence of a program is a process.	<i>How to create a sequence of commands to produce a given output.</i>
	Cross curriculum Links: - Maths – Number Problems - Art & Design – Techniques.		Cross curriculum Links: - English writing – draft and write narratives. - History – The Roman Empire.		Cross curriculum Links: N/A		Cross curriculum Links: Science		Cross curriculum Links: English – non-narrative writing		Cross curriculum Links: N/A	
	Education for a Connected World: Privacy and Security		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: Managing online information		Education for a Connected World: N/A	

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	Future Learning: Computing systems and networks – Connecting computers – The Internet (Year 4)	Future Learning: Creating Media – Photo editing (Year 4)	Future Learning: Programming B – Repetition in games (Year 4)	Future Learning: Data and information – Data logging (Year 4)	Future Learning: Creating Media – Webpage creation (Year 6)	Future Learning: Programming A & B (Year 4)
	Key vocabulary: <i>Digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets.</i>	Key vocabulary: <i>Animation, flip book, stop-frame, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition.</i>	Key vocabulary: <i>Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, run the code, order, note, chord, algorithm, bug, debug, code.</i>	Key vocabulary: <i>Attribute, value, questions, table, objects, equal, branching, even, separate, structure, compare, order, organise, selecting, information, decision tree.</i>	Key vocabulary: <i>Text, images, advantages, disadvantages, communicate, font, style, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy, paste, purpose, benefits.</i>	Key vocabulary: <i>Motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions</i>

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Year 4												
EYFS	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:
	Unit: Computing systems and networks – Connecting computers – The Internet		Unit: Creating Media – Audio production.		Unit: Programming A – Repetition in shapes		Unit: Data and information – Data logging		Unit: Creating Media – Photo editing		Unit: Programming B – Repetition in games	
	Prior Learning: Children have learnt about the main components of a computer, different uses for IT and the differences between input and output devices.		Prior Learning: Children have learnt different aspects of creating media in KS1 and Y3, including Digital Music in Y2.		Prior Learning: Children have explored sequences of commands during programming units in Year 3.		Prior Learning: Children have experience of understanding data and how it can be collected throughout KS1 & KS2.		Prior Learning: - Children have explored the use of digital devices and using these devices to create media. Children have explored images and their manipulation in Year 2.		Prior Learning: Children have experience of using ScratchJr, Scratch and programming Bee-Bots & robots in KS1. Repetition (Spring 1, Year 4).	
	Big Question – Can I think critically to question what I read on the internet?		Big Question – Can I plan and create a podcast with multiple audio layers?		Big Question – Can I create a program with a infinite and count-controlled loop?		Big Question – Can I collect and interpret data?		Big Question – Can I experiment with editing tools to alter an image?		Big Question -	
	Strands: CM, IT, NW, SS	Curriculum links: 2.4, 2.5, 2.6, 2.7	Strands: CM, CS, DD, DI, ET	Curriculum links: 2.5, 2.6, 2.7	Strands: AL, ET, PG	Curriculum links: 2.1, 2.2, 2.3, 2.6	Strands: CS, DI, ET	Curriculum links: 2.2, 2.6	Strands: CM, DD, ET, IT, SS	Curriculum links: 2.6, 2.7	Strands: AL, DD, PG	Curriculum links: 2.1, 2.2, 2.3
	To understand that physical computers are connected via networks.	<i>How to access the internet using different browsers such as Google Chrome, Edge, and Safari.</i>	To identify that sound can be recorded.	<i>Record sound using a computer.</i>	To identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves.	<i>How to convert everyday tasks as a set of instructions including repetition.</i>	To suggest questions that can be answered using a table of data.	<i>How to use a digital device to collect data automatically.</i>	To understand and recognise that digital images can be manipulated.	<i>Use an application to change the whole of a digital image.</i>	To explain that we can use a loop command in a program to repeat instructions.	<i>How to use an infinite loop to produce a given outcome.</i>
	To understand networked devices, make up the internet.	<i>How to protect ourselves while being online.</i>	To identify that an input device is needed to record sound.	<i>Play recorded audio through an output device.</i>	To explain that we can use a loop command in a program to repeat instructions.	<i>How to use an infinite loop to produce a given outcome.</i>	To understand and identify that data can be collected over time.	<i>How to choose an appropriate timeframe to collect data.</i>	To understand that digital images can be changed for different purposes.	<i>Use an application to change part of a digital image.</i>	To identify a loop within a Program.	<i>How to use a count-controlled loop to produce a given outcome.</i>
	To understand how content can be added to the Internet and accessed via the World Wide Web (www).		To identify that output devices are needed to play audio.	<i>Import audio into an existing project.</i>	To identify and recognise loops and patterns in a sequence.	<i>How to use a count-controlled loop to produce a given outcome.</i>	To understand that sensors are input devices.	<i>How to use a computer to sort data by one attribute.</i>	To choose the most appropriate tool for a particular purpose.	<i>Use an application to add composition of a digital image.</i>	To explain that in programming there are indefinite loops and count-controlled loops.	<i>Plan a program that includes appropriate loops.</i>
	Cross curriculum Links: RSE and Health Education.		Cross curriculum Links: - Science (sound) - English		Cross curriculum Links: N/A		Cross curriculum Links: - Science – LKS2 - Maths - data		Cross curriculum Links: N/A		Cross curriculum Links: N/A	
	Education for a Connected World: Managing online information.		Education for a Connected World: Copyright and ownership		Education for a Connected World: N/A		Education for a Connected World: N/A		Education for a Connected World: Self-image and identify		Education for a Connected World: N/A	

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	Future Learning: Computing systems and networks – systems and searching (Year 5)	Future Learning: Creating Media – Video Production (Year 5).	Future Learning: Programming – Sensing movement (Year 6)	Future Learning: Data and information – Flat-file databases (Year 5)	Future Learning: Creating Media – Video production	Future Learning: Programming – Variables in games (Year 6)
	Key vocabulary: <i>Internet, network, router, security, switch, server, wireless access point (WAP), website, web page, web address, World Wide Web, content, links, files, use, download, sharing, permission, information, accurate, honest, content, adverts.</i>	Key vocabulary: <i>Audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback.</i>	Key vocabulary: <i>Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure.</i>	Key vocabulary: <i>Data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion.</i>	Key vocabulary: <i>Image, edit, digital, crop, rotate, undo, save, adjustments, effects, colours, hue, saturation, sepia, vignette, image, retouch, clone, select, combine, made up, real, composite, cut, copy, paste, alter, background, foreground, zoom, undo, font.</i>	Key vocabulary: <i>Scratch, programming, sprite, blocks, code, loop, repeat, value, infinite loop, count-controlled loop, costume, repetition, forever, animate, event block, duplicate, modify, design, algorithm, debug, refine, evaluate.</i>

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Year 5												
EYFS	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:
	Unit: Computing systems and networks – systems and searching.		Unit: Creating Media – Video production.		Unit: Programming A – Selection in physical computing.		Unit: Data and Information – Flat-file databases		Unit: Creating Media – Introduction to vector graphics		Unit: Programming B – Making Quizzes	
	Prior Learning: Children have learnt about the Internet and the Web Wide Web.		Prior Learning: Children have learnt about photo editing (Year 4) and stop-frame animation (Year 3) where they have learnt about some features of video production.		Prior Learning: Children have experience of using block-based language (Scratch, ScratchJnr) and understand the concepts of sequence and repetition.		Prior Learning: Children have knowledge and understanding of why and how information might be stored in a database (Branching databases, Year 3)		Prior Learning: Children have learnt about digital painting in KS1 and basics of desktop publishing in Year 3.		Prior Learning: Children have knowledge and understanding from Spring 1 (selection).	
	Big Question – Can I explain and describe how to influence search results?		Big Question – Can I use different filming techniques and editing tools to record a video?		Big Question – Can I design and create a project that includes selection?		Big Question – Can I use a real-world database to answer questions?		Big Question – Can I use layering to create a vector drawing?		Big Question – Can I design a program that contains “if, then, else”?	
	Strands: CS, DD, ET, IT, NW	Curriculum links: 2.1, 2.2, 2.4, 2.6	Strands: CM, CS, DD, ET, SS	Curriculum links: 2.5, 2.6, 2.7	Strands: CS, DD, PG	Curriculum links: 2.1, 2.2, 2.3, 2.6	Strands: DD, DI, ET	Curriculum links: 2.5, 2.6	Strands: CM, DD, DI, ET	Curriculum links: 2.6	Strands: AL, DD, PG	Curriculum links: 2.1, 2.2, 2.3, 2.6
	To recognise that a system is a set of interconnected parts which work together.	<i>Describe the input and output of a search engine.</i>	To explain the features of video as a visual media format.	<i>Name the features of a video recording digital device.</i>	To explain that a condition can only be true or false.	<i>Create a simple circuit that is connected to a computer and a microcontroller.</i>	To explain that a computer program can be used to organise data.	<i>Choose different ways to view data and ask questions that need more than one attribute to answer.</i>	<i>Identify that a vector drawing comprises separate objects.</i>	<i>Identify a vector drawing and its features.</i>	To explain that a condition can only be either true or false.	<i>Create a condition-controlled loop.</i>
	To recognise inputs, processes, and outputs in IT systems.	<i>How to demonstrate that different search terms produce different results.</i>	To recognise which devices can and can’t record video.	<i>To name the different filming techniques used to create video.</i>	To explain that a condition-controlled loop will stop when a condition is met.	<i>Design & create a simple program that includes count-controlled loops.</i>	To explain that tools can be used to select data to answer questions.	<i>Choose which attribute to sort data by to answer a given question.</i>	<i>To recognise that each object in a drawing is in its own layer.</i>	<i>Add, delete, group/ungroup, and reposition multiple objects between different layers of a drawing.</i>	To explain that a condition-controlled loop will stop when a condition is met.	<i>Use a condition in a “if/then” statement to start an action.</i>
	To explain why search engines create indices, and that they are different for each search engine.		To understand the purpose of a storyboard.	<i>Use a digital device, incorporating the techniques to create different effects.</i>	To explain that when a condition is met, a loop will complete a cycle before it stops.	<i>Identify whether a condition is either true or false.</i>	To outline how ordering data allows us to answer some questions.	<i>Choose suitable ways to present information to other people.</i>	<i>To recognise that vector images can be scaled without impact on quality and objects can be modified in groups.</i>	<i>Create a vector drawing for a given purpose.</i>	To explain that when a condition is met a loop will complete a cycle before it stops.	<i>Use selection to switch program flow.</i>
	To explain that ranking search results to make them more useful.		To identify videos can be improved through and reshooting or editing.	<i>How to demonstrate when a shoot needs to be reshot.</i>	To explain that selection can be used to branch the flow of a program.	<i>To explain the importance of instruction order in ‘if...then...else...’ Statements.</i>	To explain that computer programs can be used to compare data visually.	<i>Select most appropriate graph to visually compare data.</i>	<i>To explain how alignment and size guides can help create a more consistent drawing</i>	To explain that selection can be used to branch the flow of a program.	<i>Use “if, then, else” to switch program flow in one or two ways.</i>	
	Cross curriculum Links: RSE and Health Education		Cross curriculum Links: N/A		Cross curriculum Links: Science (LKS2) – Electricity		Cross curriculum Links: Maths (statistics)		Cross curriculum Links: Art & Design		Cross curriculum Links: N/A	

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			Design & technology			
	Education for a Connected World: - Privacy and Security - Managing online information	Education for a Connected World: Online relationships	Education for a Connected World: N/A	Education for a Connected World: N/A	Education for a Connected World: N/A	Education for a Connected World: N/A
	Future Learning: Computing systems and networks – Communication and collaboration (Year 6).	Future Learning: Creating Media – Webpage creation (Year 6)	Future Learning: Programming B – Making Quizzes (Year 5)	Future Learning: Data and Information – Introduction to spreadsheets (Year 6)	Future Learning: Creating Media – Webpage creation	Future Learning: Programming – Variables in games (Year 6).
	Key vocabulary: System, connection, digital, input, process, storage, output, search, search engine, refine, index, bot, ordering, links, algorithm, search engine optimisation (SEO), web crawler, content creator, selection, ranking.	Key vocabulary: Video, audio, camera, talking head, panning, close up, video camera, microphone, lens, mid-range, long shot, moving subject, side by side, angle (high, low, normal), static, zoom, pan, tilt, storyboard, filming, review, import, split, trim, clip, edit, reshoot, delete, reorder, export, evaluate, share.	Key vocabulary: Microcontroller, USB, components, connection, infinite loop, output component, motor, repetition, count-controlled loop, Crumble controller, switch, LED, Sparkle, crocodile clips, connect, battery box, program, condition, Input, output, selection, action, debug, circuit, power, cell, buzzer	Key vocabulary: Database, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation.	Key vocabulary: Vector, drawing tools, object, toolbar, vector drawing, move, resize, colour, rotate, duplicate/copy, zoom, select, align, modify, layers, order, copy, paste, group, ungroup, reuse, reflection.	Key vocabulary: Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator.

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Year 6												
EYFS	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:	Children will learn that:	Children will learn how to:
	Unit: Computing systems and networks – Communication and collaboration		Unit: Creating Media – Web page creation		Unit: Programming – Variables in games		Unit: Data and Information – Introduction to spreadsheets		Unit: Creating Media – 3D Modelling		Unit: Programming B – Sensing movement	
	Prior Learning: Children have prior understanding of computing systems, key components, and the internet.		Prior Learning: Children have prior understanding of digital writing, digital painting, desktop publishing, digital photography, photo editing, and vector drawing.		Prior Learning: Prior experience of using Scratch throughout KS2. Should understand construction of sequence, repetition, and selection.		Prior Learning: Children have experienced data in tables and charts in the Y4 data logging and Y5 branching database units.		Prior Learning: Children should have experienced 2D graphics during Year 5.		Prior Learning: Children should have a solid understanding of sequence, repetition and selection independently within programming using various coding programs.	
	Big Question – Can I communicate responsibly online and report concerns about inappropriate content?		Big Question – Can I plan and create a web page with links to external web pages?		Big Question – Can I create a simulation of a scoreboard using variables?		Big Question – Can I choose suitable ways to present data?		Big Question – Can I construct a 3D model based on a design?		Big Question – Can I use a conditional statement to compare a variable to a value?	
	Strands: DD, ET, IT, NW	Curriculum links: 2.4, 2.6, 2.7	Strands: CM, DD, ET, IT, NW	Curriculum links: 2.5, 2.6, 2.7	Strands: DD, PG	Curriculum links: 2.1, 2.2, 2.3, 2.6	Strands: CM, DI, ET, PG	Curriculum links: 2.6	Strands: CM, DD, ET	Curriculum links: 2.6, 2.7	Strands: CS, DD, PG	Curriculum links: 2.1, 2.2, 2.3, 2.6
	To recognise that data is transferred across networks using agreed protocols (methods). To recognise that connections between computers allow access to shared stored files. To recognise computers connected to the internet allow people in different places to work together. To understand what you should and shouldn't share online.	<i>Describe methods of communicating and collaborating using the internet.</i> <i>Name and explain which types of media can be shared through the internet.</i>	To recognise that web pages are written by people. To recognise that web pages can contain different media types. To recognise that a website is a set of hyperlinked web pages. To recognise components of a web page layout. To consider the ownership and use of images (copyright).	<i>Create a new web page with text, various styles, hyperlinks to internal and external web sites.</i>	To define a 'variable' as something that is changeable. To define a program variable as a placeholder in memory for a single value. To recognise that the value of a variable can be used by a program. The importance of setting up a variable at the start of a program (initialisation). To understand that variables have one value at any time and a variable name is meaningless to a computer.	<i>Identify examples of information that is variable.</i> <i>Choose a name that identifies the role of a variable to make it easier for humans to understand it</i> <i>Recognise where in a program to set a variable.</i> <i>Use a variable in a conditional statement to control the flow of a program.</i> <i>Use the same variable in more than one location in a program.</i>	To identify questions that can be answered using spreadsheet data. To explain what an item of data is in a spreadsheet and how this determines how can process data. To explain that formulas can be used to calculate data. To explain why data should be organised in a spreadsheet and cells can be linked. To recognise that a cell's value automatically updates when the value in a linked cell is changed.	<i>Calculate data using a formula for each operation.</i> <i>Use new functions to create new data.</i> <i>Choose suitable ways to present spreadsheet data.</i>	To explain that 3D models can be created on a computer. To recognise that a 3D environment can be viewed from different perspectives. To recognise that digital tools can be used to manipulate 3D objects. To show how placeholders can create holes in 3D objects. To recognise that artefacts can be broken down into a collection of 3D objects.	<i>Position 3D shapes relative to one another.</i> <i>Use digital tools to modify 3D objects.</i> <i>Combine objects to create a 3D digital artefact.</i> <i>Use digital tools to accurately size 3D objects.</i> <i>Construct a 3D model which reflects a real world object.</i>	To define a 'variable' as something that is changeable. To define a program variable as a placeholder in memory for a single value. To explain that a variable has a name and a value. To identify that variables can hold numbers integers) or letters (strings). To explain the importance of setting up a variable at the start of a program (initialisation). To explain that the name of a variable needs to be unique.	<i>Identify a variable in an existing program.</i> <i>Experiment with the value of an existing variable.</i> <i>Choose a name that identifies the role of a variable to make it more usable (to humans).</i> <i>Decide where in a program to set a variable.</i> <i>Use a variable in a conditional statement to control the flow of a program.</i> <i>Use the same variable in more than one location in a program</i>

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	Cross curriculum Links: RSE and Health Education	Cross curriculum Links: English - composition	Cross curriculum Links: N/A	Cross curriculum Links: Maths – Number & statistics	Cross curriculum Links: Art & Design Design Technology Maths – 3D shapes	Cross curriculum Links: N/A
	Education for a Connected World: - Managing online information. - Self-image and identity.	Education for a Connected World: Copyright and ownership	Education for a Connected World: N/A	Education for a Connected World: N/A	Education for a Connected World: N/A	Education for a Connected World: N/A
	Future Learning:	Future Learning:	Future Learning: Programming B – Sensing movement	Future Learning:	Future Learning:	Future Learning:
	Key vocabulary: <i>Communication, protocol, data, address, Internet Protocol (IP), Domain Name Server (DNS), packet, header, data payload, chat, explore, slide deck, reuse, remix, collaboration, internet, public, private, one-way, two-way, one-to-one, one-to-many.</i>	Key vocabulary: <i>Website, web page, browser, media, Hypertext Markup Language (HTML), logo, layout, header, media, purpose, copyright, fair use, home page, preview, evaluate, device, Google Sites, breadcrumb trail, navigation, hyperlink, subpage, evaluate, implication, external link, embed.</i>	Key vocabulary: <i>Variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, code, test, debug, improve, evaluate, share, assign, declare.</i>	Key vocabulary: <i>Data, collecting, table, structure, spreadsheet, cell, cell reference, data item, format, formula, calculation, spreadsheet, input, output, operation, range, duplicate, sigma, propose, question, data set, organised, chart, evaluate, results, sum, comparison, software, tools.</i>	Key vocabulary: <i>TinkerCAD, 2D, 3D, shapes, select, move, perspective, view, handles, resize, lift, lower, recolour, rotate, duplicate, group, cylinder, cube, cuboid, sphere, cone, prism, pyramid, placeholder, hollow, choose, combine, construct, evaluate, modify.</i>	Key vocabulary: <i>Micro:Bit, MakeCode, input, process, output, flashing, USB, trace, selection, condition, if then else, variable, random, sensing, accelerometer, value, compass, direction, navigation, design, task, algorithm, step counter, plan, create, code, test, debug.</i>

