



Sequence of teaching overview in Computing 2024 2025

	Autumn Term (15 weeks)			Spring Term (11 weeks)			Summer Term (13 weeks)					
THRIVE VALUES	<p>Team – We work collaboratively to explore, research and explain. We explore different types of relationships we could be a part of online and how to keep safe in these situations.</p> <p>Healthy – We show a growth mindset and stretch our minds when exploring different computing systems and networks.</p>			<p>Responsibility – We ensure we use all technology responsibly and safely. We take time to reflect on previous learning and use this knowledge to help us progress.</p> <p>Innovative – We are innovative by using our own ideas when programming. We use logical reasoning when exploring different algorithms to create and debug programs.</p>			<p>Valued – We value accuracy and access to information. We value freedom of information.</p> <p>Empathetic – We have the opportunity to revisit skills which need more practice and take the opportunity to support one another. We understand that we learn from our mistakes.</p>					
	<p>Unit Outcome Instructions</p>			<p>Unit Outcome BeeBots</p>			<p>Unit Outcome Using a computer</p>					
EYFS	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary			
	Follow instructions as part of practical activities and games.	Learn to give simple instructions.	Explore algorithms..	Understand directional names.	Follow a simple sequence of instructions.	Explore and tinker with hardware.	Experiment with programming and learn how to give simple commands.	Learn to debug instructions.	Forward, back, backwards, right, left, arrow, direction, turn, straight on, directions, route, directions, program, algorithm, instructions, right, circle, algorithm, debug, arrow, circle, sequence.	Explore keyboards and how to locate relevant keys.	Learn how to log in and out.	Develop basic mouse skills.
	Instructions, blindfold, step over, walk around, turn, left, right, to the side, straight on, stand still, stop, duck, under, bend down, walk, hop, tiptoe, shuffle, skip, run, timer, describe, adjective, two-part instructions, timer, describe, adjective, two-part instructions, algorithm, order, sequence, algorithm, predict, prediction, next, last, first, second, third.									computer, monitor, keyboard, mouse, letters, numbers, uppercase, lowercase, type, computer, monitor, keyboard, mouse, log in, log out, computer safety, protect, password, private, secure, security, lock, personal, left-click, right-click, arrow, cursor, arrow, cursor, paint, stamp.		
Year One	<p>Unit Outcome Online Safety (PM)</p>			<p>Unit Outcome Creating Media – Digital writing (TC)</p>			<p>Unit Outcome Data Handling – Grouping data (TC)</p>					



Sequence of teaching overview in Computing 2024 2025

	Computing Systems and Networks – Technology around us (TC)			Programming A – Moving a robot (TC)			Programming B – Programming animations (TC)		
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
		<p>Online Safety: Explore tools and become familiar with key icons. To turn on, log on and off a computer.</p> <p>Computing systems and networks: Recognising technology in school and using it responsibly.</p>	<p>Online Safety: Login, password, private, home screen, avatar, log out, toolbar, menu, internet, online, exit.</p> <p>Computing Systems and Networks: technology, computer, mouse, trackpad, keyboard, screen, double-click, typing</p>	<p>Creating Media: Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.</p> <p>Programming A: Writing short algorithms and programs for floor robots, and predicting program outcomes.</p>	<p>Digital Writing: word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse, select, font, undo, redo, format, compare, typing, writing.</p> <p>Programming A: Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program.</p>	<p>Data Handling: Exploring object labels, then using them to sort and group objects by properties.</p> <p>Programming B: Designing and programming the movement of a character on screen to tell stories.</p>	<p>Data Handling: object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same</p> <p>Programming B: ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design.</p>		
Year Two	Unit Outcome Online Safety (PM) Computing Systems and Networks – IT around us (TC)			Unit Outcome Creating Media – Digital music (PM) Programming A – Robot algorithms (TC)			Unit Outcome Data Handling – Pictograms (TC) Programming B – Programming quizzes (TC)		
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	Online Safety:		Online Safety: Email, attachment, reply, personal/	Creating Media: To make music digitally using 2Sequence.		Creating Media: music, quiet, loud, feelings, emotions,	Data Handling: Collecting data in tally charts and using		Pictograms: more than, less than, most, least,



Sequence of teaching overview in Computing 2024 2025

	<p>To understand that information put online leaves a digital footprint or trail. To understand how we should talk to others in an online situation. To identify the steps that can be taken to keep personal data and hardware secure.</p> <p>Computing Systems and Networks: Identifying IT and how its responsible use improves our world in school and beyond.</p>	<p>private, information, digital footprint, protection, secure.</p> <p>Computing Systems and Networks: Information technology (IT), computer, barcode, scanner/scan.</p>	<p>To explore, edit and combine sounds.</p> <p>Programming A: Creating and debugging programs, and using logical reasoning to make predictions.</p>	<p>pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit.</p> <p>Programming A: instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition.</p>	<p>attributes to organise and present data on a computer.</p> <p>Programming B: Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p>	<p>common, popular, organise, data, object, tally chart, votes, total, pictogram, enter, data, compare, objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing</p> <p>Programming B: sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code.</p>			
Year Three	<p>Unit Outcome Online Safety (PM) Computing Systems and Networks – Connecting computers (TC)</p>			<p>Unit Outcome Creating Media – Stop-frame animation (PM) Programming A – Sequencing sounds (TC)</p>			<p>Unit Outcome Data Handling – Branching databases (PM) Programming B – Events and actions in programs (TC)</p>		
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	<p>Online Safety: Understand how to stay safe online using; safe passwords,</p>			<p>Creating Media: Animation, frame, fps (frames per</p>			<p>Data Handling: Building and using branching databases to</p>		
<p>Online safety: Password, personal information, blog,</p>			<p>Data Handling: attribute, value, questions, table,</p>						



Sequence of teaching overview in Computing 2024 2025

	<p>reliable websites and appropriate content/ ratings.</p> <p>Computing Systems and Networks: Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p>permission, vlogs, appropriate, internet, website, spoof, verify, reputable source, inappropriate, permission.</p> <p>Computing Systems and Networks: digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets.</p>	<p>Create a 'stop motion' animation using onion skinning.</p> <p>Programming A: Creating sequences in a block-based programming language to make music.</p>	<p>second), pause, onion skinning, stop-motion.</p> <p>Programming A: 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.</p>	<p>group objects using yes/no questions.</p> <p>Programming B: Writing algorithms that use a range of events to trigger sequences of action.</p>	<p>objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree.</p> <p>Programming B: motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions</p>
Year Four	<p>Unit Outcome Online Safety (PM) Computing Systems and Networks – The internet (TC)</p>		<p>Unit Outcome Creating Media – Audio production (PM) Programming A – Repetition in shapes (PM)</p>		<p>Unit Outcome Data Handling – Data logging (TC) Programming B – Repetition in games (TC)</p>	
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	<p>Online safety: Understand how to stay safe online by recognising; phishing, malware, plagiarism and a healthy screen-time.</p>	<p>Online safety: Report, SMART rules, spam, attachment, phishing, digital footprint, malware, software, virus, AdFly, ransomware, cookies, plagiarism, watermark, citation, copyright, collaborating, data</p>	<p>Creating Media: Compose a piece of electronic music.</p> <p>Programming A: Use and build procedures in 2Logo.</p>	<p>Creating Media: Pulse, rhythm, tempo, pitch, texture, melody, dynamics, bpm, snyth, harmonious.</p> <p>Programming A: 2Logo, grid, run speed, logo commands (e.g., FD</p>	<p>Data Handling: Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</p> <p>Programming B:</p>	<p>Data Handling: data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion.</p> <p>Programming B:</p>



Sequence of teaching overview in Computing 2024 2025

	<p>Computing Systems and Networks: Recognising that the internet is a network of networks including the WWW, and why we should evaluate online content.</p>	<p>analysis, collaborative database.</p> <p>Computing Systems and Networks: internet, network, router, security, switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, World Wide Web, content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, content, adverts.</p>		<p>BK RT LT), prediction, pen up, pen down, multi-line mode, debugging, repeat, procedure, SETPC, SETPS.</p>	<p>Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</p>	<p>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.</p>			
Year Five	<p>Unit Outcome Online Safety (PM) Computing Systems and Networks – Systems and searching (TC)</p>		<p>Unit Outcome Creating Media – 3D modelling (PM) Programming A – Selection in physical computing (TC)</p>		<p>Unit Outcome Data Handling – Flat-file databases (TC) Programming B – Selection in quizzes (TC)</p>				
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	<p>Online Safety: To understand how to stay safe online by protecting privacy and using reliable methods of communication.</p>	<p>Online safety: Responsibility, SMART rules, encrypt, critical thinking, image manipulation, avatar, citation, validity, reliability, plagiarism, bibliography, copyright, creative</p>	<p>Creating Media: Design and print a 3D model using a 2D net.</p> <p>Programming A: Exploring conditions and selection using a</p>	<p>Creating Media: Net, template, 3D view, pattern fill, points, design brief, 3D printing.</p> <p>Programming A: microcontroller, USB, components,</p>	<p>Data Handling: Using a database to order data and create charts to answer questions.</p>	<p>Data Handling: database, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation.</p>			



Sequence of teaching overview in Computing 2024 2025

	<p>Computing Systems and Networks: Recognising IT systems in the world and how some can enable searching on the internet.</p>	<p>commons license, communication.</p> <p>Computing Systems and Networks: 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.</p>	<p>programmable microcontroller.</p>	<p>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.</p>	<p>Programming B: Exploring selection in programming to design and code an interactive quiz.</p>	<p>Programming B: Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator.</p>					
Year Six	<p>Unit Outcome Online Safety (PM) Computing Systems and Networks – Communication and collaboration (TC)</p>		<p>Unit Outcome Creating Media – Web page creation (TC) Programming A – Variables in games (TC)</p>		<p>Unit Outcome Data Handling – Introduction to spreadsheets (TC) Programming B – Sensing movement (TC)</p>						
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary		
	<p>Online safety: Understand how to stay safe online by exploring online behaviours and screen time.</p> <p>Computing Systems and Networks:</p>		<p>Online safety: Secure websites, location sharing, spoof websites, phishing, password, PEGI, digital footprint, inappropriate, print screen, screen time, data analysis.</p> <p>Computing Systems and Networks:</p>		<p>Creating Media: Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.</p>		<p>Creating Media: 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,</p>		<p>Data Handling: Answering questions by using spreadsheets to organise and calculate data.</p>		<p>Data Handling: 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,</p>



Sequence of teaching overview in Computing 2024 2025

	<p>Exploring how data is transferred by working collaboratively online.</p>	<p>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.</p>	<p>Programming A: Exploring variables when designing and coding a game.</p>	<p>subpage, evaluate, implication, external link, embed.</p> <p>Programming A: variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, code, test, debug, improve, evaluate, share, assign, declare.</p>	<p>Programming B: Designing and coding a project that captures inputs from physical devices.</p>	<p>evaluate, results, sum, comparison, software, tools.</p> <p>Programming B: 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.</p>
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