Woodlands Primary School Computing Overview Cycle A 2024/2025

Reception Overview

	Autumn 1 All About Me	Autumn 2 Minibeasts	Spring 1 Journeys	Spring 2 Journeys	Summer 1 Amazing Animals	Summer 2 Super Veggies
Objectives from Development Matters	Explore how things work. Talk about members of their immediate family.	Explore how things work.	Talk about members of their immediate family and community. (Online safety)	Explore how things work.	Recognise some environments that are different from the one in which they live.	Recognise some environments that are different from the one in which they live.
Key Learning	**Cyber Sid** **AUP (Acceptable use policy) Rules** Provide children with loose parts to play with and investigate. Encourage the children to explore the EYFS environment and provision available. Provide opportunities to explore mechanical toys e.g cars, code critters, IWB, Children send in family photographs to build a class display. Encourage children to refer to books, wall displays and online resources. This will support their	**Cyber Sid** Drawing programs - draw images of Autumn animals and leaves Use of cameras / IPads to take pics on an Autumn/Seasonal change walk Type labels for Autumn objects found on walk e.g conkers, leaves	**Cyber Sid** Online Relationships (PROJECT EVOLVE) Barefoot computing - People who help us. Use of walkie talkies to guide a friend on a journey Simple coding - Let's go code (activity set). Directional activities	Barefoot computing - Super Space link with algorithm and Simple coding Directional activities Code Critters Simple coding - Let's go code (activity set). Directional activities	Barefoot computing - Spring time - Make a rabbit run - link to Code Critters (rabbit) Encourage children to refer to books, wall displays and online resources. This will support their investigations and extend their knowledge and ways of thinking. Small groups work in a computer room or on iPads - research different habitats and animals around the world.	Make a podcast/video of their favourite memory from Reception. Look for opportunities via literacy speaking and listening for the children to record a story. Small groups work in the computer room or on iPads if staffing allows. If it is difficult, bring an iPad trolley to EYFS.

	investigations and extend their knowledge and ways of thinking.					
Key Vocab	online safety, internet, Interactive Whiteboard, IPad, email, share, laptop, communicate, printer, telephone, wires, keyboard, keys screen, technology, on, off, mouse, equipment, remote	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online, typing, create, paint, online safety	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online directional language – right, left, up, down, sideways, forwards, backwards, moving, instructions, information, online safety	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online, coding critters, directional language -– right, left, up, down, sideways, forwards, backwards, instructions, moving	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online, coding critters, directional language – right, left, up, down, sideways, forwards, backwards, instructions, moving	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online, coding critters, directional language -– right, left, up, down, sideways, forwards, backwards, podcast, voice notes, sound, click, double click, mouse
How does this prepare the children for Key Stage 1?	Information technology Around Us topic Naming devices around the EYFS setting	Digital writing Digital painting Photography Using the iPads	Algorithms – using Beebots instructional language	Use of Beebots Use of ScratchJn -c oding software on IPads	Refining children's search skills using Google Use of Beebots Mouse control skills Familiarity with computing equipment and computer room	Photography - using iPads Mouse control skills Familiarity with computing equipment and computer room

Key Stage 1 and 2 Cycle A

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computer Systems and Networks	**Creative Media**	**Programming 1**	**Data and Info**	**Creating Media**	**Programming 2**
Year 1/2	Technology Around Us (Y1) Information Technology Around Us (Y2)	Digital Writing	Moving a Robot (Y1) Robot Algorithms (Y2)	Grouping Data	Digital Painting	Programming Animation (Y1) Programming Quizzes (Y2)
Year 3/4	The Internet	Audio Editing	Repetition in Shapes	Branching Database	Photo Editing	Repetition in Games
Year 5/6	Sharing Information	Video Production	Selection in Physical Computing	Flat-file Databases	Vector Drawing	Selection in Quizzes

Unit Summaries Cycle A

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computer Systems and Networks	**Creative Media**	**Programming 1**	**Data and Info**	**Creating Media**	**Programming 2**
Year 1/2	**Technology Around Us (Y1)** Recognising technology in school and using it responsibly. **Information Technology Around Us (Y2)** Identifying IT and how its responsible use improves our world in school and beyond.	**Digital Writing** Using a computer to create and format text, before comparing to writing non-digitally.	**Moving A Robot (Y1)** Writing short algorithms and programs for floor robots and predicting program outcomes. **Robot Algorithms (Y2)** Creating and debugging programs, using logical reasoning to make predictions.	**Grouping Data** Exploring object labels, then using them to sort and group objects by properties.	**Digital Painting** Choosing appropriate tools in a program to create art and making comparisons with working non-digitally.	**Programming Animations** Designing and programming the movement of a character on screen to tell stories.
Year 3/4	**The Internet** Recognising the internet as a network of networks including the WWW and why we should evaluate online content.	**Audio Editing** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**Repetition in Shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Branching Databases** Building and using branching database to group objects using yes/no questions.	**Photo Editing** Manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled.	**Repetition in Games** Using block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5/6	**Sharing Information** Identifying and exploring how information is shared between digital systems.	**Video Production** Planning, capturing, and editing video to produce a short film.	**Selection in Physical Computing** Exploring conditions and selection using a programmable microcontroller.	**Flat-file Databases** Using a database to order data and create charts to answer questions.	**Vector Drawing** Creating images in a drawing program by using layers and groups of objects.	**Selection in Quizzes** Exploring selection in programming to design and code an interactive quiz.

Computing Vocabulary Cycle A

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computer Systems and Networks	**Creative Media**	**Programming 1**	**Data and Info**	**Creating Media**	**Programming 2**
Year 12	**Technology Around Us Online (Y1)** Base unit, click, computer, device, drag, desktop, double-click, file, full stop, iPad, input device, keyboard, laptop, mouse, monitor, responsibly, open, password, program, save, safely, screen, spacebar, text, technology, typing, trackpad. **Information Technology Around Us (Y2)** Barcode, computer, devices, games console, handles, information technology (IT), memory stick, password, projector, release, resize, safety, scan, scanner, social media, USB.	**Digital Writing** Backspace, bold, capital letters, compare, font, format, italic, keyboard, keys, letters, letters, Microsoft Word, mouse, numbers, redo, select, space, text cursor, toolbar, toolbar, type, underline, undo, word processor.	**Moving a Robot (Y1)** Algorithm, backwards, Bee-bots, clear, commands, directions, forwards, go, instructions, left, plan, program, right, robot, route, turn. **Robot Algorithms (Y2)** Algorithm, backwards, clear, debugging, decomposition, fixing, forwards, go, Instruction, left, mat, order, prediction, program, programmers, right, route, sequence, turn, unambiguous.	**Grouping Data** Colour, data, fewest, group, image, label, least, less, more, most, object, property, same, search, shape, size, value.	**Digital Painting** Brush style, colour, computers, erase, fill tool, fill line tool, paint program, paintbrush, painting, pictures, shape tools, tool, undo.	**Programming Animation** Algorithm, appropriate, background, Bee-Bot, block, change, command, compare, delete, effect, instruction, joining, predict, program, programming area, programming blocks, programming, reset, run, Scratch Jn, sprite, start block, value.
Year 3/4	**The Internet** Accurate, adverts, content, download, files, Information, internet, links, network, network security, network switch, ownership, permission, router, routing, server, sharing, use, web address router, web browser, web page, website, Wireless Access Point (WAP), World Wide Web (WWW)	**Audio Editing** Align, audio, edit, export, headphones, import, input device, layer, load, microphone, MP3, output device, playback, podcast, record, save, selection, sound, speaker, trim.	**Repetition in Shapes** Code snippet, commands, count-controlled loop, debug, decompose, design, logo, pattern, procedure, program, repeat, repetition, trace, turtle, value.	**Branching Databases** Attribute, branching databases, compare, database, decision tree, equal, even, information, objects, order, organise, questions, selecting, separate, structure, table, value.	**Photo Editing** Adjustments, alter, background, clone, combine, composite, copy, crop, cut, digital, edit, effects, font, foreground, hue, Image, made up, paste, retouch, rotate, saturation, save, select, sepia, undo, vignette, zoom.	**Repetition in games** Algorithm, animate, block, code, costume, count-controlled loop, debug, design, duplicate, evaluate, event block, forever, infinite loop, loop, modify, programming, refine, repeat, repetition, Scratch, sprite, value.

Year 5/6	**Sharing Information** Algorithm, connection, content creator, crawler, digital, index, input, links, ordering, output, process, ranking, refine, search, search engine, search engine optimisation (SEO), selection, system, web crawler.	**Video Production** Audio, camera, clip, close, delete, edit, evaluate, export, filming, high angle, import, lens, long shot, low angle, microphone, mid-range, moving subject, normal angle, pan, panning, reorder, reshoot, share, side by side, split, static camera, talking head, trim, video camera, video, zoom.	**Selection in Physical Computing** Action, components, condition, connect, connection, controller, count-controller, crocodile clips, crumble, debug, infinite, input, LED, loop, microcontroller, motor, output, repetition, selection, sparkle, switch.	**Flat-file Databases** Axis, chart, compare, criteria, data, database, field, filter, graph, group, information, order, presentation, record, search, sort, value.	**Vector Drawing** Align, colour, copy, duplicate, group, layers, modify, move, object, order, paste, reflection, resize, reuse, rotate, select, toolbar, tools, ungroup, vector drawing, zoom.	**Selection in Quizzes** Algorithm, answers, condition, conditional statement, count-control loop, debug, design, false, implement, input, outcomes, program, questions, run, selection, task, test, true.