Woodlands Primary School Computing Overview   Cycle B   2023/24

Reception Overview

	Autumn 1 Marvellous Me	Autumn 2 Houses and Homes	Spring 1 Amazing Animals	Spring 2 Near and Far	Summer 1 All Creatures Great and Small	Summer 2 Under the Sea
Online Safety	Self-image and Identity	Managing Online Information Online Bullying	Health and Wellbeing Online Relationships	Online Reputation	Health and Wellbeing	Copyright and Ownership Privacy and Security
Objectives from Development Matters	Explore how things work. Talk about members of their immediate family.	Explore how things work.	Online Safety Day (February) Know and talk about the different factors that support their overall health and wellbeing: - regular physical activity - sensible amounts of 'screen time' - being a safe pedestrian.	Explore how things work. Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.	Recognise some environments that are different from the one in which they live. Explore the natural world around them, making observations and drawing pictures of animals and plants.	Recognise some environments that are different from the one in which they live. Know some similarities and differences between the natural world around them and contrasting environments
Key Learning	Provide mechanical and computing equipment for children to play with and investigate. Technology Hunt around the school and computer room Busy Bodies – Barefoot Education	Drawing programs Use of cameras / IPads to take pics on mini beast hunt Home task- Technology Hunt around the home	Identify and give examples of rules to keep us safe and healthy when using technology (link with the AUP) Identify how the internet can be used to communicate Technology hunt around the school and computer room Online Safety Day Activities (theme changes each year)	Simple coding using Code Critters Directional activities Walkie Talkies to guide a friend on a journey Boats Ahoy from Barefoot Education	Simple coding using Code Critters Use books, classroom displays and online resources to support learning	Small groups to the computer room to develop mouse control by playing online mouse control games Summer Fun - Barefoot Computing

Key Vocab	Interactive Whiteboard, IPad, tablet, email, share, laptop, communicate, printer, telephone, wires, keyboard, screen, computer, mouse.	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online	Online, safety, rules, safe, technology, internet, devices, communicate.	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online, coding critters, directional language	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online, coding critters, directional language	Interactive Whiteboard, IPad, tablet, email, share, laptop, camera, photograph, video, internet, website, search, online, coding critters, directional language, podcast, voice notes
How does this prepare the children for Key	Technology Around Us topic	Digital writing Digital Painting Digital Photos	Algorithms – using Beebots and instructional language	Use of Beebots Use of Scratch Junior coding software on IPads	Refining children's search skills using Kiddle	Photography Developing familiarity with desktop computers in readiness for KS 1 computing sessions

Email communication between home and school (sharing news etc) ongoing.

Key Stage 1 and 2   Cycle B   2023/2024

	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)	Pictograms	Digital Photos	Programming Animations (Y1) Programming Quizzes (Y2)
Year 3/4	Connecting Computers	Stop-Frame Animation	Sequencing Sounds	Data Logging	Desktop Publishing	Events and Actions in Programs
Year 5/6	Internet Communication	Webpage Creation	Selection in Quizzes Variables in Games		Introduction to Spreadsheets	Sensing

Unit Summaries Cycle B

	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.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Digital Photography** Capturing and changing digital photographs for different purposes.	**Programming Animations (Y1)** Designing and programming the movement of a character on screen to tell stories. **Programming Quizzes (Y2)** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
Year 3/4	**Connecting Computers** Identifying that digital device have inputs, processes, and outputs and how devices can be connected to make networks.	**Stop Frame Animation** Capturing and editing digital still images to produce a stop-frame animation that tells a story.	**Sequencing Sounds** Creating sequences in a block-based programming language to make music.	**Data Logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**Desktop Publishing** Creating documents by modifying text, images, and page layouts for a specific purpose.	**Events and Actions in Programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year5/ 6	**Internet Communication** Recognising how the WWW can be used to communicate and be searched to find information.	**Webpage Creation** Designing and creating webpages, considering copyright, aesthetics, and navigation.	**Selection in Quizzes** Exploring selection in programming to design and code an interactive quiz. **Variables in Games** Exploring variables when designing and coding a game.		**Introduction to Spreadsheets** Answering questions by using spreadsheets to organise and calculate data.	**Sensing** Designing and coding a project that captures inputs from a physical device.

Computing Vocabulary Cycle B

	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, new page, numbers, open, redo, save, 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.	**Pictograms** Attribute, block diagram, compare, conclusion, count, data, explain, least common, least popular, least, less than, more common, more than, most popular, most, object, organise, sharing, tally chart.	**Digital Photography** Background, camera, capture, compose, device, digital, editing, filter, flash, focal point, focus, foreground, format, framing, horizontal, image, landscape, light sources, lighting, photograph, pixel, portrait, subject, vertical.	**Programming Animation (Y1)** 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. **Programming Quizzes (Y2)** Actions, algorithm, blocks, build, change, command, compare, debug, design, evaluate, features, match, modify, outcome, predict, program, project, run, Sequence, sprite, start.
Year 34	**Connecting Computers** Connection, digital device, digital, input, network cables, network sockets, network switch, network, non-digital, output, process, program, server, wireless access point (WAP).	**Stop Frame Animation** Animation, animation, character, consistency, delete, evaluation, events, flip book, frame, frame, import, media, onion skinning, sequence, setting, stop frame, transition.	**Sequence in Music** Algorithm, backdrop, blocks, bug, chord, code, code, commands, costume, debug, design, event, glide, go to, motion, note, order, point in direction, programming blocks, programming, run the code, Scratch, sequence, sprite, stage, task, turn.	**Data Logging** Analyse, collection, conclusion, data logger, data point, data set, data, export, import, input device, interval, layout, logged, logging, review, sensor, table.	**Desktop Publishing** Advantages, benefits, communicate, content, copy, desktop publishing, disadvantages, font style, font, images, landscape, layout, layout, orientation, paste, placeholder, portrait, purpose, template, template, Text.	**Events and Actions** Action, algorithm, **code,** debugging, design, errors, event, extension block, logic, motion, move, pen up, pen, resize, set up, sprite, test.

	Communication	**Web Page Creation**	**Selection in Quizzes**	**Spreadsheets**	**Sensing**
Year 5/6	Address, chat, communication, data payload, data, address, digital footprint, domain Name Server (DNS), explore, header, internet, Internet Protocol (IP), one-to-many, one-to-one, one-way, packet, private, protocol, public, slide deck, two-way.	Breadcrumb troll, browser, copyright, device, embed, evaluate, external, Google Sites, header, homepage, hyperlink, Hypertext Markup Language (HTML), layout, link, logo, media, navigate, preview, purpose, subpage, web page, website.	Algorithm, answers, condition, conditional statement, count-control loop, debug, design, false, implement, input, outcomes, program, questions, run, selection, task, test, true. **Variables in Games** Algorithm, change, code, debug, design, evaluate, event, improve, name, output, program, project, set, share, test, value, variable.	Ascending, calculation, calculate, cell reference, cells, chart, collecting, columns, data, descending, Excel, formula, graph, input, labels, operation, output, results, rows, sigma, spreadsheet, structure, table, total.	Accelerometer, algorithms, code, compass, condition, create, debug, design, direction, else, flashing, if, input, Makecode, Micro:bit, navigation, output, plan, process, random, selection, sensing, step counter, task, test, then, trace, USB, value, variable.