Computing: Progression of Vocabulary

Birchwood Junior School

By computing role · Years 3 to 6

Our computing roles

Data handler | Programmer | Problem solver | Engineer | Publisher | Risk assessor

The key vocabulary children learn to use in each computing role, by year group.

	Year 3	Year 4	Year 5	Year 6
Data handler	**Branching databases** attribute, value, questions, table, objects, branching databases, equal, even, separate, order, organise, j2data, selecting, pictogram, information, decision tree	**Data logging** data, table (layout), input device, sensor, data logger, logging, data point, interval, analyse, import, export, logged, collection, review, conclusion	**Mars Rover** 8-bit binary, addition, ASCII, binary code, Boolean, byte, communicate, construction, CPU, data transmission, decimal numbers, design, discovery, distance, hexadecimal, input instructions, internet, Mars Rover, moon, numerical data, output, planet, radio signal, RAM, research, scientist, sequence, signal, simulation, space, subtraction, technology, transmit **Flat-file databases** database, data, information, record, field, sort, order, group, search, criteria, value, graph, chart, axis, compare, filter, presentation	**Big data** algorithms, barcode, binary, Boolean, brand, chips, commuter, contactless, data, encrypted, infrared, MagicBand, privacy, proximity, QR code, QR scanner, radio waves, RFID, signal, systems/data analyst, transmission, wireless **Spreadsheets** spreadsheet, data, data heading, data set, cells, columns and rows, data item, format, common attribute, formula, calculation, cell reference, sigma, graph, evaluate, results, comparisons, questions, software, tools, propose
Programmer	**Programming (Scratch)** **Sequencing in music** Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, event, task, design, run the code, order, note, chord **Events and actions** motion, event, sprite, algorithm, logic, move, resize, extension, block, pen up, set up, design, action, debugging, errors, setup, test	**Programming (Scratch)** **Repetition in Shapes** program, turtle, commands, code, snippet, algorithm, design, debug, Logo commands, pattern, repeat, repetition, count-controlled loop, value, decompose, procedure **Repetition in games** Scratch, programming, sprite, blocks, code, loop, repeat, value, forever, infinite loop, count-controlled loop, animate, costume, event block, duplicate, modify, debug, refine, evaluate, algorithm	**Programming (Scratch)** selection, condition, true, false, count-controlled loop, outcomes, conditional statement (the linking together of a condition and outcomes), algorithm, program, debug, implement, question, answer, task, input, test, run, setup, share, evaluate, constructive **Physical computing (Crumble)** microcontroller, Crumble controller, components, LED, Sparkle, crocodile clips, connect, battery box, program, repetition, infinite loop, count-controlled loop, condition, true, false, input, action, selection, motor, switch, algorithm, debug, evaluate	**HTML** code, component, content, copyright, CSS, end tag, fake news, hacking, heading, headline, hex code, HTML, input, internet browser, output, paragraph, permission, remixing, script, start tag, tags, text, URL, webpage **Python** algorithm, code, command, design, import, indentation, input, instructions, loop, output, patterns, random, remix, repeat, shape
Risk assessor	accept, comment, consent, content, deny, emojis, offline, online, password, permission, personal information, pop ups, pressure, private information, reliable, share, terms and conditions, trusted adult	accurate, age-restricted, autocomplete, beliefs, block, content, digital devices, fact, fake news, internet, opinion, password, persuasive, privacy settings, reliable, report, requests, search engine, security questions, sharing, smart devices, social media platforms, social networking, wellbeing	accuracy, advantages, advertisements, belief, bot, chatbot, computer, distractions, fact, hashtag, implications, in-app purchases, influencer, opinion, program, recommendations, reliable, risks, screen time, search results, snippets, sponsored, trustworthy	anonymity, antivirus, biometrics, block and report, consent, copy, digital footprint, digital personality, financial information, hacking, inappropriate, malware, online bullying, online reputation, password, paste, personal information, personality, phishing, privacy settings, private, reliable source, report, reputation, respect, scammers, screengrab, secure
Problem solver	algorithm, debug, input, output, sequence, step-by-step, solution, test, variable	Boolean, conditional, debugging, flowchart, iteration, pseudocode, recursion, sequence, solution	binary, encryption, function, hash, loop, parameters, searching, sorting, tree	API, data structures, debugging techniques, hash table, OOP, recursion, searching algorithms, sorting algorithms, stack
Engineer	**Desktop computing** text, images, advantages, disadvantages, communicate, font, style, template, desktop publishing, copy, paste, layout, purpose, benefits	**PowerPoint** alignment, animation, background, clip art, colour scheme, compress, copy, cut, default, delete, design, DPI, drag, drop, duplicate, format, group, hyperlink, insert, layout, master slide, object, paste, picture, placeholder, presentation, resolution, slide, slide master, text box, theme, transition, vector, video, view, width	**Sharing information** system, connection, digital, input, process, output, protocol, address, packet, chat, explore, slide deck, reuse, remix, collaboration	**Computing systems: communication** search, search engine, Google, Bing, Yahoo, Swisscows, DuckDuckGo, refine, index, crawler, bot, optimisation, links, web crawlers, content creator, ranking, communication, internet, public, private, one-way, two-way, one-to-one, one-to-many, SMS, email, WhatsApp, blog, YouTube, Twitter, BBC newsround
Publisher	**Creating media** application, camera angle, clip, cross blur, cross fade, cross zoom, desktop, digital device, dip to black, directional wipe, edit, film, film editing software, graphics, import, key events, laptop, music, photo, plan, recording, sound effects, storyboard, time code, trailer, transition, video, voiceover	**Photo editing** image, edit, arrange, select, digital, crop, undo, save, search, copyright, composition, pixels, rotate, flip, adjustments, effects, colours, hue/saturation, sepia, version, illustrator, clone, recolour, magic wand, sharpen, brighten, fake, real, composite, background, foreground, retouch, paste, alter, publication, elements, original, font style, border, layer	**Vectors** vector, drawing tools, shapes, object, icons, toolbar, move, resize, colour, rotate, duplicate/copy, zoom, select, alignment grid, handles, consistency, modify, layers, front, back, copy, paste, group, ungroup, reuse, improvement, evaluate, alternatives	**3D modelling** 2D, 3D, 3D object, 3D space, view, resize, colour, lift, rotate, position, select, duplicate, dimensions, placeholder, hole, group, ungroup, modify, evaluate, improve