



Computing Vocabulary Progression Map

EYFS to Year 6 | Core technical language linked to the Park Road curriculum

Purpose: This map identifies the most important vocabulary pupils should hear, understand and use as they move through the Computing curriculum. Terms are deliberately revisited across units so that pupils develop increasingly precise and connected subject language.

WHOLE-SCHOOL PROGRESSION AT A GLANCE

Strand	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Systems & hardware	device, screen, keyboard, mouse, hardware	cursor, log in, save, camera	hardware, software, input, output	network, server, router, CPU, memory	cloud, permission, browser, HTML	search engine, crawler, binary, architecture	AI, machine learning, encryption, smart system
Programming	instruction, sequence, command, algorithm	program, predict, route, debug	code, block, sprite, decompose	event, coordinates, decomposition	repetition, selection, condition, variable, abstraction	nested loop, function, micro:bit, sensor	Python, syntax, iteration, function, prompt
Data & information	data, sort, group, pictogram	collect, record, chart, branching database	compare, temperature, interpret	record, field, filter, graph	data logger, formula, analyse, pattern	bit, byte, transmission, ASCII	big data, RFID, GPS, real-time, accuracy
Creating media	camera, photograph, image	edit, crop, search, collage	animation, frame, storyboard, playback	footage, shot, transition, soundtrack	website, webpage, layout, hyperlink	frame rate, onion skinning, effect, audience	generated content, prototype, pitch, feedback
Purpose & evaluation	choose, try, change	plan, design, test, improve	purpose, format, review	audience, interpret, evaluate	efficiency, criteria, collaborate	prototype, system, evaluate, reliable	user, design brief, ethics, market research
Online safety	permission, trusted adult, care	online, kind, post, share, digital footprint	personal information, private, password, consent	fact, opinion, belief, spam, social media	accuracy, advertising, bot, digital wellbeing	permissions, reputation, online bullying, wellbeing	anonymity, antivirus, two-factor authentication, scam, evidence

Teaching principle: Pupils should meet vocabulary through explanation, modelling, discussion and practical application. Technical terms should be revisited in later units rather than treated as one-off definitions.



EYFS and KS1 Unit Vocabulary

Core vocabulary mapped to each curriculum unit

Use: The words below are the essential teaching vocabulary for each unit. They are a selected core rather than an exhaustive lesson list; teachers may add contextual vocabulary from Kapow lesson presentations and knowledge organisers.

EARLY YEARS FOUNDATION STAGE

Year / term	Curriculum unit	Core vocabulary to introduce and revisit
EYFS A1	Computing through continuous provision	technology, device, screen, button, cause, effect
EYFS A2	Computing systems and networks: Using a computer	computer, keyboard, mouse, screen, click, drag, log in, log out
EYFS Sp1	Programming: All about instructions	instruction, order, first, next, sequence, predict, debug
EYFS Sp2	Computing systems and networks: Exploring hardware	hardware, camera, tablet, photograph, image, device
EYFS Su1	Programming: Programming Bee-Bots	arrow, command, sequence, algorithm, route, forwards, backwards, turn
EYFS Su2	Data handling: Introduction to data	data, sort, group, category, yes/no, branching database, pictogram

KEY STAGE 1

Year / term	Curriculum unit	Core vocabulary to introduce and revisit
Y1 A1	Computing systems and networks: Improving mouse skills	computer, screen, mouse, cursor, click, drag, log in, save
Y1 A2	Programming: Algorithms unplugged	algorithm, instruction, sequence, order, predict, debug, decompose
Y1 Sp1	Skills showcase: Rocket to the moon	plan, design, label, instruction, test, record, spreadsheet, evaluate
Y1 Sp2	Programming: Bee-Bot	algorithm, Bee-Bot, command, program, route, destination, precise, debug
Y1 Su1	Creating media: Digital imagery	image, photograph, camera, edit, crop, search, collage, copyright
Y1 Su2	Data handling: Introduction to data	data, collect, record, pictogram, chart, sort, branching database, question
Y2 A1	Computing systems and networks: What is a computer?	computer, technology, hardware, software, input, output, keyboard, device
Y2 A2	Programming: Algorithms and debugging	algorithm, program, sequence, logical, error, debug, decompose, maze

Year / term	Curriculum unit	Core vocabulary to introduce and revisit
Y2 Sp1	Computing systems and networks: Word processing	keyboard, type, text, space bar, shift, format, insert, document, shortcut
Y2 Sp2	Programming: ScratchJr	block, code, sequence, sprite, start, animation, program, repeat
Y2 Su1	Creating media: Stop motion	animation, frame, sequence, photograph, storyboard, playback, consistent
Y2 Su2	Data handling: International Space Station	data, record, compare, temperature, map, information, interpret, digital drawing



Lower KS2 Unit Vocabulary

Year 3 and Year 4 | Increasing technical precision

Progression: In lower KS2, pupils move from naming features and following familiar processes towards explaining systems, selecting tools and using more formal computational language.

YEAR 3

Year / term	Curriculum unit	Core vocabulary to introduce and revisit
Y3 A1	Computing systems and networks: Networks	network, device, server, router, switch, data, connection, packet
Y3 A2	Programming: Scratch	Scratch, sprite, block, event, sequence, coordinates, decomposition, debug
Y3 Sp1	Computing systems and networks: Emailing	email, inbox, recipient, subject, attachment, reply, address book, spam
Y3 Sp2	Computing systems and networks: Journey inside a computer	input, output, CPU, GPU, RAM, ROM, storage, component
Y3 Su1	Creating media: Video trailers	storyboard, footage, shot, edit, transition, soundtrack, audience, review
Y3 Su2	Data handling: Comparison cards databases	database, record, field, spreadsheet, sort, filter, graph, interpret

YEAR 4

Year / term	Curriculum unit	Core vocabulary to introduce and revisit
Y4 A1	Computing systems and networks: Collaborative learning	collaborate, cloud, shared file, permission, comment, version history, form, spreadsheet
Y4 A2	Programming: Further coding with Scratch	loop, repetition, selection, condition, variable, sensor, broadcast, debug
Y4 Sp1	Creating media: Website design	website, webpage, hyperlink, navigation, layout, content, audience, embed
Y4 Sp2	Skills showcase: HTML	HTML, tag, element, heading, paragraph, browser, source code, remix
Y4 Su1	Programming: Computational thinking	decompose, pattern recognition, abstraction, algorithm, logical, efficiency, problem-solving
Y4 Su2	Data handling: Investigating weather	sensor, data logger, spreadsheet, formula, chart, analyse, pattern, weather station



Upper KS2 Unit Vocabulary

Year 5 and Year 6 | Connected concepts and independent application

Progression: In upper KS2, pupils connect vocabulary across systems, programming, data and media. They should use terminology accurately when explaining choices, debugging, evaluating reliability and considering ethical implications.

YEAR 5

Year / term	Curriculum unit	Core vocabulary to introduce and revisit
Y5 A1	Computing systems and networks: Search engines	search engine, query, keyword, web crawler, index, rank, algorithm, reliable
Y5 A2	Programming: Music	loop, nested loop, variable, function, algorithm, remix, soundtrack, evaluate
Y5 Sp1	Data handling: Mars Rover 1	binary, bit, byte, transmission, signal, data, architecture, ASCII
Y5 Sp2	Programming: BBC micro:bit	micro:bit, MakeCode, input, output, sensor, variable, loop, program
Y5 Su1	Creating media: Stop motion animation	frame rate, onion skinning, storyboard, edit, effect, soundtrack, animation, audience
Y5 Su2	Skills showcase: Mars Rover 2	prototype, system, input, output, data, test, criteria, evaluate

YEAR 6

Year / term	Curriculum unit	Core vocabulary to introduce and revisit
Y6 A1	Computing systems and networks: Bletchley Park and the history of computers	cipher, encryption, codebreaking, brute force, computer, machine, code, key
Y6 A2	Computing systems and networks: Exploring AI	artificial intelligence, machine learning, prompt, refine, generated content, bias, ethics, HTML
Y6 Sp1	Programming: Intro to Python	Python, syntax, variable, input, output, selection, iteration, function
Y6 Sp2	Data handling: Big Data 1	big data, barcode, QR code, RFID, database, scan, privacy, identification
Y6 Su1	Data handling: Big Data 2	sensor, GPS, network, real-time, analyse, accuracy, ethics, smart system
Y6 Su2	Skills showcase: Inventing a product	user, design brief, prototype, product, pitch, feedback, market research, evaluate



Online Safety Vocabulary Progression

Vocabulary revisited throughout the year alongside all Computing units

Whole-school entitlement: Online safety vocabulary should be taught explicitly and used consistently in classroom discussion. Pupils should understand not only the words, but how each concept applies to real situations and where to seek help.

Phase	Key concepts	Core vocabulary	What progression looks like
EYFS	Permission, care and help	permission, trusted adult, safe, careful, private	Children ask before using technology, care for equipment and tell a trusted adult when unsure or worried.
Year 1	Safe use, kindness and sharing	internet, online, kind, post, share, digital footprint, screen time	Pupils recognise that online actions affect feelings and that shared content can leave a lasting record.
Year 2	Privacy, security and consent	personal information, private, password, permission, consent, reliable	Pupils distinguish safe and unsafe information to share, use passwords and understand the right to say no.
Year 3	Information, emotions and social platforms	fact, opinion, belief, personal information, privacy settings, social media, age restriction	Pupils question online content, respond to upsetting material and understand rules around sharing and social media.
Year 4	Search, influence and digital wellbeing	accuracy, search result, advertising, purchase, bot, fact, opinion, digital wellbeing	Pupils judge search results, recognise online persuasion and bots, and reflect on balanced technology use.
Year 5	Protection, communication and reputation	strong password, app permission, online communication, reputation, online bullying, online health	Pupils manage permissions, understand how information shapes reputation and suggest strategies for healthy online use.
Year 6	Security, evidence and scams	anonymity, antivirus, consent, digital reputation, evidence, two-factor authentication, scam, privacy settings	Pupils manage security independently, identify scams, capture evidence and explain how private content may still be shared.

Implementation notes

- Display current unit vocabulary and deliberately reuse previously taught terms in teacher modelling and questioning.
- Expect pupils to explain terms in context and apply them practically, rather than recall isolated definitions.
- Use precise vocabulary in assessment, pupil voice and work scrutiny to identify whether knowledge is secure.
- Support SEND and EAL pupils with visuals, worked examples, matching activities and repeated oral rehearsal.

Curriculum alignment: Park Road Academy Computing Long-Term Overview, Kapow Primary Computing curriculum portal, public unit descriptions, lesson sequences and unit outcomes. This document presents a selected core vocabulary map and does not reproduce Kapow subscriber-only vocabulary displays.