



KS1 Computing Curriculum Progression

Condensed overview | Year 1 to the end of Year 2

Purpose: A concise overview of how pupils build secure computing knowledge and skills across Years 1 and 2 through Park Road's planned units. Learning moves from supported exploration to increasingly independent, purposeful and safe use of technology.

FOUNDATIONAL	PURPOSEFUL	PROGRESSIVE	SAFE
Secure control of devices, vocabulary and routines.	Technology used to create, communicate and solve problems.	Pupils explain choices and work with increasing independence.	Privacy, kindness, reliability and trusted-adult support are reinforced.

YEAR 1 CURRICULUM SEQUENCE

Half term	Unit	Children develop	Core vocabulary
Autumn 1	Computing systems & networks: Improving mouse skills	Log in with support; control a mouse to click, drag and draw; save and revisit simple digital work.	computer, screen, mouse, cursor, click, drag, log in
Autumn 2	Programming 1: Algorithms unplugged	Recognise an algorithm as clear, ordered instructions; follow, create, predict and debug simple sequences.	algorithm, instruction, sequence, order, predict, debug
Spring 1	Skills showcase: Rocket to the moon	Apply sequencing, design and evaluation skills to plan, make and improve a solution for a clear purpose.	plan, design, instruction, test, evaluate, improve
Spring 2	Programming 2: Bee-Bot	Use directional commands to program a short route; predict outcomes, test and correct a program.	command, program, route, forwards, backwards, turn, debug
Summer 1	Creating media: Digital imagery	Plan a photo story; take, select and edit images; search responsibly and combine images in a collage.	image, photograph, camera, edit, crop, search, collage
Summer 2	Data handling: Introduction to data	Collect and represent information using pictures or charts; sort with questions and explore a simple branching database.	data, collect, record, pictogram, chart, sort, database

YEAR 2 CURRICULUM SEQUENCE

Half term	Unit	Children develop	Core vocabulary
Autumn 1	Computing systems & networks 1: What is a computer?	Identify computer parts, inputs and outputs; recognise technology in the wider world and explain what it is used for.	computer, technology, input, output, keyboard, mouse, device
Autumn 2	Programming 1: Algorithms and debugging	Develop and compare algorithms; use maps and mazes; identify errors and explain how debugging improves an outcome.	algorithm, program, sequence, logical, error, debug, decompose

Half term	Unit	Children develop	Core vocabulary
Spring 1	Computing systems & networks 2: Word processing	Use a keyboard and word processor to enter, edit and format text, insert images and produce a purposeful document.	keyboard, type, text, space bar, shift, format, insert, document
Spring 2	Programming 2: ScratchJr	Build sequences with blocks; create movement, animation and sound; follow an algorithm and test a simple program.	block, code, sequence, sprite, start, animation, program
Summer 1	Creating media: Stop motion	Explain how animation works; plan a sequence, capture consistent frames and create and review a short stop-motion animation.	animation, frame, sequence, photograph, storyboard, playback
Summer 2	Data handling: International Space Station	Use digital maps and tools; record, compare and interpret information, including simple numerical and temperature data.	data, record, compare, temperature, map, information, interpret

Whole-key-stage thread: Online safety is revisited throughout both years: safe searching, kind communication, privacy, responsible sharing, healthy technology use and seeking help from a trusted adult.



Progression at a Glance

Year 1 foundations | Year 2 development | End-of-KS1 expectations

How to use this page: The statements highlight essential progression rather than every lesson objective. Evidence should show what pupils know, explain and apply, with adult support reducing as they move through KS1.

Strand	Year 1 foundations	Year 2 progression	By the end of KS1, pupils can...	Key vocabulary
Computing systems & networks	• Use a mouse and basic controls with growing confidence. • Recognise familiar devices and that actions produce responses.	• Identify inputs, outputs and common computer parts. • Explain uses of information technology in school and beyond.	• Select and use familiar hardware and software for a purpose. • Describe common uses of information technology beyond school.	device, hardware, software, input, output, technology
Programming & computational thinking	• Understand algorithms as ordered instructions. • Program and debug short Bee-Bot routes.	• Create, compare and debug algorithms. • Use block coding to make a simple sequence with movement, sound or animation.	• Create and debug simple programs and use logical reasoning to predict their behaviour.	algorithm, sequence, command, program, block, predict, debug
Creating media & digital content	• Capture, select and edit images for a simple photo story or collage.	• Enter and format text, insert images and produce a document. • Plan and create a short stop-motion animation.	• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	create, edit, image, text, format, animation, frame
Data handling	• Collect, sort and represent simple data using pictures, charts and branching questions.	• Record, compare and interpret information using digital tools and simple data sets.	• Collect, organise and interpret information, choosing a suitable simple representation.	data, collect, record, sort, pictogram, chart, compare
Purposeful use & evaluation	• Follow a plan, make a digital or physical outcome and identify a simple improvement.	• Choose appropriate tools, review a product and explain how it could be improved.	• Choose technology for a clear purpose and explain or evaluate the outcome.	purpose, plan, select, test, evaluate, improve
Digital literacy & online safety	• Use technology safely and kindly; ask before sharing and seek help when worried.	• Keep personal information private; consider the effect of posting and question whether online information is true.	• Use technology safely and respectfully, keep personal information private and know where to seek help.	online, safe, private, password, share, reliable, trusted adult

Year 2 learning prepares pupils for Year 3 units in networks, Scratch, emailing, computer systems, video creation and databases.



Assessment, Evidence & End Points

A practical guide for implementation across Key Stage 1

Assessment principle: Assess the security of pupils' knowledge and their ability to apply it in a practical context. A polished final product is not required; useful evidence includes pupil explanation, observation, saved work and successful debugging or improvement.

Possible evidence across KS1

Programming: a route, block sequence, prediction, correction or explanation of an error

Digital content: saved artwork, document, photo collage or animation with pupil commentary

Data: a pictogram, branching activity, recorded information or comparison

Systems: identifying parts, inputs/outputs or examples of technology beyond school

Online safety: responses to scenarios and consistent safe, respectful behaviour

Inclusive practice: use modelling, paired work, visual algorithms, physical resources, reduced-step tasks and accessible input methods while retaining the same core concept.

Simple assessment prompts

RECALL – Can the pupil name the key idea, tool or vocabulary?

EXPLAIN – Can the pupil describe what will happen and why?

APPLY – Can the pupil use the learning in a new task or context?

DEBUG / IMPROVE – Can the pupil identify a problem and make a purposeful change?

INDEPENDENCE – Is the pupil selecting tools and seeking help appropriately?

End-of-KS1 area	Pupils know...	Pupils can...	Possible evidence
Computer science	Algorithms are precise sequences; programs follow commands; errors can be found and corrected.	Create and debug a simple program and use logical reasoning to predict what it will do.	Bee-Bot/ScratchJr program, prediction, debugging explanation
Information technology	Digital tools have different purposes and content can be created, changed, stored and retrieved.	Select familiar tools to create and organise text, images, animation or data for a purpose.	Saved document, collage, animation, pictogram or data task
Systems & networks	Computers use inputs and outputs and information technology is used in many places.	Identify common hardware and explain examples of technology in school and the wider world.	Technology safari, labelled device, pupil explanation
Digital literacy & safety	Personal information should be private; online actions affect others; help is available.	Use technology safely and respectfully, make sensible choices and seek support when needed.	Scenario discussion, online-safety task, observed behaviour

Transition to KS2: Pupils enter Year 3 ready to explore how networks transfer information, develop more complex Scratch programs, communicate by email, examine computer components and work with databases and video.

Aligned to Park Road Academy's KS1 computing sequence, the current statutory KS1 Computing programme of study and publicly available Kapow Primary KS1 unit overviews.