SS Peter & Paul Catholic Primary School

Computing Knowledge and Skills Progression

What our children know and can do, from Reception to Year 6 · 2026–27

Strand	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Algorithms and programming	Gives instructions to a floor robot and sees that it does exactly what it is told.	Follows and writes simple instructions; makes a program in 2Code using objects, actions and events.	Builds algorithms to move a screen turtle; codes interaction between objects; uses timers and debugs.	Writes code using rotation and repetition; plans with flowcharts in 2Chart; tests and debugs systematically.	Uses selection, loops, co-ordinates and number variables; refines Logo code with repetition and procedures.	Simplifies and refines code; uses functions, tags and different variable types; simulates a physical system.	Uses cloning, hotspots and complex flowcharts; writes text-based Python with data types and repetition.
Data and information	Sorts and groups objects by what they have in common.	Sorts and groups items, collects simple data and presents it as a pictogram.	Uses rows, columns and totalling tools in 2Calculate; makes tally charts and branching databases.	Uses cell addresses and the formula wizard; creates and tests branching databases with binary questions.	Applies spreadsheet and data-handling skills across other subjects rather than meeting a new data tool.	Creates and queries table-based databases with records and fields; uses formulae to predict and spot patterns.	Filters, sorts, groups and links tables in big data sets; builds graphs from multiple datasets.
Creating with media	Records own voice and takes photographs; makes marks with digital drawing tools.	Makes digital art, jigsaws and drag-and-drop games; creates an animated digital book with image, text and sound.	Paints in the style of famous artists; composes with 2Sequence; presents ideas on a concept map.	Types with correct posture and finger position; builds a presentation with media, animation and timings.	Animates using onion skinning and storyboarding; scripts, records and edits an audio book; composes with beats.	Designs quizzes and a 3D maze game; word-processes with tables and templates; builds concept maps.	Plans, writes, edits and publishes a blog, and moderates comments; designs and evaluates 3D CAD models.
Computer systems and networks	Notices technology in the classroom and at home, and what it is for.	Says what technology is and recognises it at school, at home and in the wider world.	Distinguishes the internet from the World Wide Web; knows what browsers, websites and webpages are.	Communicates by email, including attachments, and understands the safety that goes with it.	Explains how hardware and software work together to make a system do something.	Understands inputs and outputs through micro:bit and external devices, where these are taught.	Explains what networks do, names internet services, and knows that digital systems store everything as binary.
Searching, evaluating and AI	Chooses between two things and says why.	Begins to understand that the information on a screen was put there by somebody.	Asks questions in order to collect information that is actually useful.	Judges whether what has been found answers the question that was asked.	Chooses keywords and refines a search; explains search rankings; judges whether a source is reliable; explains what AI is and weighs its positive and negative effects.	Evaluates the playability and effectiveness of own and others' work against criteria.	Interprets what is being asked of a data set and queries it to find the answer; justifies the conclusion.
Online safety and responsible use	Knows to tell an adult if something on a screen worries them.	Knows that personal information is private, and who the trusted adults are.	Knows that not everything online is true, and that people online are not always who they say.	Uses email safely; knows what to do about an unkind or unexpected message.	Understands a digital footprint and that what is posted is difficult to take back.	Recognises pressure, persuasion and unreliable content, and knows how to report.	Explains the positive and negative use of networks, and takes responsibility for how own behaviour affects others.

Online safety is taught every week through 2BeSafe, mapped to the UKCIS Education for a Connected World framework — the row above is a summary only, and the full programme is on our Online Safety page. Children with SEND access the same curriculum through adapted tasks, assistive technology and pre-taught vocabulary, not a reduced offer.