Computing Knowledge Progression

St Augustine of Canterbury R.C. Primary School – EYFS - Year 6

Based on the key knowledge statements in the school's Computing Curriculum Overview. The four golden threads show how understanding builds across year groups. This document focuses on knowledge rather than lesson-by-lesson skills.

Computer Systems and Networks

Year	Knowledge progression
EYFS	Recognise technology in the classroom, describe what it is used for and understand basic rules for safe use.
Year 1	Know what technology is, identify parts of a computer and explain how technology helps in everyday life; understand basic responsible use.
Year 2	Recognise information technology in school and wider settings, understand how it helps people and why it should be used responsibly.
Year 3	Understand input and output devices, how digital devices function and how connected devices share information through networks.
Year 4	Know that the internet is a network of networks; understand the World Wide Web, how content is created and shared, and why online information may be unreliable.
Year 5	Understand computer systems as connected inputs, processes and outputs; know how search engines find, select and rank results and their limitations.
Year 6	Understand internet addresses and data transfer; know how online communication and collaboration work and how technology supports working together.

Creating Media

Year	Knowledge progression
EYFS	Know that software can be used to draw pictures, add details and explain choices made when creating digital artwork.
Year 1	Understand digital painting tools and how choices affect artwork; know how to create, edit and format digital text and compare digital and non-digital methods.
Year 2	Know how digital photographs are captured, improved and edited, and that images can be changed; understand patterns and purpose in digitally created music.
Year 3	Understand that stop-frame animation uses a sequence of images and requires careful planning; know how text, images and layout convey meaning in desktop publishing.
Year 4	Know how audio is recorded, edited and combined for a podcast; understand how digital images can be cropped, altered, combined and evaluated.
Year 5	Understand video recording techniques, storyboarding and editing; know that vector images are made from objects that can be layered, grouped and duplicated.
Year 6	Know how web pages are structured, previewed and linked, including copyright considerations; understand how 3D objects can be modified and combined for a purpose.

Programming

Year	Knowledge progression
EYFS	Know that a programmable robot follows instructions and that movements can be explained using directional vocabulary.
Year 1	Understand commands, sequences and predicted outcomes in floor robots; know how block-based programs control sprites and can be designed and tested.
Year 2	Understand that the order of commands affects outcomes; know how to design, test and debug robot algorithms and create programs for interactive quizzes.
Year 3	Know that Scratch programs use ordered commands and events; understand how sprites respond to code and how errors can be identified and corrected.
Year 4	Understand repetition, count-controlled and infinite loops, procedures and how loops can be used in patterns and games.
Year 5	Understand selection and conditions, including if–then and if–then–else; know how to control physical outputs and create quizzes with different outcomes.
Year 6	Understand variables as named values that can change; know how variables, selection, inputs and outputs are used in games and programmable sensing devices.

Data and Information

Year	Knowledge progression
EYFS	Early foundations are developed through describing, comparing and explaining creations; there is not a specific data unit for EYFS.
Year 1	Understand that objects can be labelled, grouped and counted by properties, and that organised data can help answer questions.
Year 2	Know how to collect data with tally charts, choose attributes and represent and compare information using pictograms and block diagrams.
Year 3	Understand yes/no questions, attributes and how well-structured branching databases identify and organise objects.
Year 4	Know that sensors and data loggers collect data over time; understand data points, logging intervals and how recorded data answers questions.
Year 5	Understand flat-file databases, records and fields; know how sorting, filtering and charts help answer questions about data.
Year 6	Understand spreadsheets, data sets, formulas and calculations; know how changes to inputs affect outputs and how charts communicate findings.

Online Safety Across the Curriculum

Online safety is taught alongside computing and is supported by Project Evolve and Education for a Connected World. Cohort-specific issues are addressed as they arise. The overview does not provide a separate year-by-year online safety knowledge sequence, so one has not been invented here.

Using This Progression

Teachers can use these statements to identify prior knowledge, plan retrieval questions, select technical vocabulary and assess understanding through practical work and knowledge capture tasks. The full curriculum overview contains the detailed lesson sequences, skills and knowledge capture questions.