COMPUTING - Progression of skills & knowledge

Strand	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Systems and networks	Use age-appropriate technology safely; recognise common devices and that technology helps us communicate and create.	Identify common digital devices and how they connect; use technology purposefully and safely.	Recognise that computers and networks are systems; use devices to create, store and share information safely.	Understand how devices communicate and how networks allow information to be shared; use digital tools appropriately.	Explain how networks and services work at a simple level; understand data transfer and choose tools for purpose.	Explain how networks, search engines and services work; consider reliability and responsible use.	Explain how digital systems and networks operate at a deeper level; evaluate reliability, security and suitability of digital systems.
Programming	Explore programmable toys and simple sequences; predict what might happen.	Create and follow simple algorithms; use sequences and instructions to control a device.	Use sequence, events and simple loops; debug programs and predict outcomes.	Use sequence, selection and repetition; create programs and identify/debug errors.	Use variables, selection, repetition and inputs; design, test and debug increasingly complex programs.	Decompose problems, use variables and logical reasoning; test systematically and refine code.	Design, implement and evaluate programs using abstraction, decomposition, variables, selection and repetition; explain algorithms and debugging choices.
Data and information / creating media	Sort and group objects; create simple digital pictures, words or sounds with support.	Organise and represent information; create and edit digital text, images and simple media.	Collect and present data; use digital tools to create, edit and combine text, images and sound.	Use databases/spreadsheets or equivalent tools to organise data; create digital content for an audience.	Use data sets and digital tools to sort, filter and present information; create purposeful multimedia.	Analyse and present data using appropriate tools; edit and combine media with increasing control and audience awareness.	Select tools strategically; analyse, interpret and communicate complex information and create polished digital media for a clear audience.
Online safety and responsible use	Know that technology should be used safely; tell a trusted adult if something online feels wrong.	Recognise personal information and simple online risks; follow school rules and seek help.	Understand privacy, passwords, personal information and how to report concerns; recognise that online content may not be true.	Explain how to behave safely and respectfully online; recognise inappropriate contact/content and know how to report it.	Understand digital footprints, privacy, scams and the importance of checking information and sources.	Manage privacy and reputation; recognise manipulation, unreliable content and online risks; respond appropriately.	Make informed, ethical choices online; evaluate reliability, privacy, security and digital footprints; support others in safe digital practice.