CRST Primary Curriculum

Computing Long - Term Sequence		
Foundational knowledge: • **Technology in everyday life** • **Online safety**	**Substantive Concepts:** **Algorithms (step-by-step instructions)** • **Programming (Sequence, Selection, Repetition, and Variables)** • **Systems and Hardware (how computers and physical components work)**	**Disciplinary Knowledge:** • **Pattern Recognition (identifying trends, similarities, and reusable rules)** • **Decomposition (breaking down complex problems into smaller, manageable parts)** • **Pattern Recognition (identifying trends, similarities, and reusable rules) Abstraction (focusing on the essential details and filtering out the unnecessary)** • **Algorithmic Thinking (designing step-by-step, logical solutions to solve a problem)**

	Autumn	Spring	Summer
Nursery	**Exploring Technology** Explore familiar technology and begin to understand that it can be used for different purposes.	**Using Technology Safely** Begin to understand simple rules for using screens and technology safely.	**Using Technology** Use familiar technology with increasing confidence and independence.
Reception	**Using Technology Purposefully** Use familiar technology with increasing independence for different purposes. Exploring patterns and giving and following instructions. (Barefoot Computing Awesome Autumn).	**Technology and Online Safety** Use technology appropriately and develop an understanding of how to stay safe online. Follow instructions and solve problems. (Barefoot Computing Winter Warmers).	**Online Communication and Safety** Know that the internet can be used to communicate, research and buy things. Understand that people may not be who they say they are and that online behaviour can affect others. Investigate, research and debug (Barefoot Computing Boats Ahoy).

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Year 1	Technology Around Us Digital Painting	Moving a Robot Grouping Data	Digital Writing Programming Algorithms
Year 2	Information Technology Around Us Digital Photography	Robot Algorithms Pictograms	Digital Music Programming Quizzes
Year 3	Connecting Computers Desktop Publishing	Branching Databases Sequencing Sounds	Stop – Frame Animation Events and Actions in Programs
Year 4	The Internet Audio Production	Repetition in Shapes Data Logging	Photo Editing Repetition in Games
Internet and online safety underpins every strand of our computing curriculum.			