The Computing Curriculum Long Term Plan

Each unit of work contains a unit overview, progression of skills and concepts and the lesson content.

Names in blue refer to inspirational people in Computing 'Amazing People'.

EYFS Barefoot	In the Early Years the focus is on computational thinking and the 'unplugged approach' through the concepts: Logic, Evaluation, Algorithms and Decompositions, Patterns and Extraction and approaches: Tinkering, Creating, De-bugging, Persevering and Collaborating.						
Key Stage One	**Keyboard Skills**	**Computing Systems and Networks**	**Creating Media**	**Data and Information**	**Creating Media**	**Programming A**	**Programming B**
Year 1	Covered in 'Computing systems and networks' and 'Digital writing' units.	**Technology around us** Recognising technology in school and using it responsibly. Douglas Englebart	**Digital Painting** Choosing appropriate tools in a programme to create art, and making comparisons with working non-digitally.	**Grouping Data** Exploring object labels, then using them to sort and group objects by properties. Taught through Maths – Statistics and Science – Everyday Materials.	**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally.	**Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes. Charles Babbage	Not taught due to curriculum time constraints.
Year 2	See keyboard progression of skills document for details.	**Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond. Xia Peisu	**Digital Photography** Capturing and changing digital photographs for different purposes.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer. Taught through Maths – Statistics.	**Making music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Robot Algorithms Giving commands in different orders to investigate how the order affects the outcome. Ada Lovelace	Not taught due to curriculum time constraints.

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Key Stage Two	Keyboard skills Au1	Computing Systems and Networks Au2	Creating Media Sp1	Data and Information Sp2	Creating Media Su1	Programming A Su2	Programming B Su2
Year 3	See keyboard progression of skills document for details.	**Connecting Computers** Identifying that digital devices have inputs, processes and outputs, and how devices can be connected to make networks.	**Stop-frame animation** Capturing and editing digital still images to produce a stop frame animation that tells a story. Steve Jobs	**Branching databases** Building and using branching databases to group objects using yes/no questions.	**Audio production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered. Swapped from Y4	**Sequencing sounds** Creating sequences in a block-based programming language to make music.	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	See keyboard progression of skills document for details. Bill Gates	**The internet** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. Tim Berners-Lee	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose. Swapped from Y3	**Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**Photo editing** Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	**Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.

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Key Stage Two	Keyboard skills	Computing Systems and Networks	Creating Media	Data and Information	Creating Media	Programming A	Programming B
Year 5	See keyboard progression of skills document for details. Steve Wozniak	**Systems and searching** Recognising IT systems around us and how they allow us to search the internet. Hessa Al Jaber	**Vector drawing** Creating images in a drawing program by using layers and groups of objects.	**Flat-file databases** Using a database to order data and create charts to answer questions.	**Video Production** Planning, capturing and editing video to produce a short film.	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.
Year 6	See keyboard progression of skills document for details.	**Communication and collaboration** Identifying and exploring how data is transferred and information is shared online. Clarence Ellis	**3D modelling** Planning, developing and evaluating 3D computer models of physical objects.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data.	**Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	**Variables in games** Exploring variables when designing and coding a game. Tommy Flowers and Alan Turing	**Sensing** Designing and coding a project that captures inputs from a physical device.