EVPA Curriculum Layer 2 – Computing

Cycle A					
Year Group	**Autumn**		**Spring**		**Summer**
EY	The September 2020 release of <u>Development Matters</u> outlines how effective teaching and learning gives children the opportunity to play and explore, participate in active learning and create and think critically. Therefore computing can be linked to each area of the EYFS framework and opportunities to use technology are linked to class topics and available in their environment. **To promote readiness for KS1, children will develop an:** • Awareness of different technologies in and out of school • Awareness of the cause and effect of technology • Awareness of digital storage of information- photography, digital writing and research information • Awareness of input and outputs of devices Children will learn to use technology to express creatively and constructively.					
1 / 2	**Technology around us (Y1)** Recognising technology in school and using it responsibly. **Information technology around us (Y2)** Identifying IT and how its responsible use improves our world in school and beyond.	**Digital painting** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	**Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes	**Grouping data** Exploring object labels, then using them to sort and group objects by properties	**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally.	**Programming animations** Designing and programming the movement of a character on screen to tell stories.

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3 / 4	**Connecting computers (Y3)** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. **The internet Recognising** (Y4) the internet as a network of networks including the WWW, and why we should evaluate online content	**Stop-frame animation** Capturing and editing digital still images to produce a stop-frame animation that tells a story	**Sequencing sounds** Creating sequences in a block-based programming language to make music.	**Branching databases** Building and using branching databases to group objects using yes/no questions.	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose.	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.
5 / 6	**Sharing information** Identifying and exploring how information is shared between digital systems.	**Video editing** Planning, capturing, and editing video to produce a short film.	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller. Note: This unit requires a Crumble controller	**Flat-file databases** Using a database to order data and create charts to answer questions.	**Vector drawing** Creating images in a drawing program by using layers and groups of objects	**Sensing** Designing and coding a project that captures inputs from a physical device Note: This unit uses a micro:bit

Cycle B

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1 / 2	**Technology around us (Y1)** Recognising technology in school and using it responsibly. **Information technology around us (Y2)** Identifying IT and how its responsible use improves our world in school and beyond.	**Digital photography** Capturing and changing digital photographs for different purposes.	**Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions.	**Pictograms Collecting** data in tally charts and using attributes to organise and present data on a computer.	**Making music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition	**Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz
3 / 4	**Connecting computers (Y3)**	**Audio editing**	**Repetition in shapes**	**Data logging**	**Photo editing** Manipulating digital	**Repetition in games** Using a block-based

	Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. **The internet** **Recognising** (Y4) the internet as a network of networks including the WWW, and why we should evaluate online content	Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Using a text-based programming language to explore count-controlled loops when drawing shapes.	Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	programming language to explore count-controlled and infinite loops when creating a game.
5 / 6	**Internet communication** Recognising how the WWW can be used to communicate and be searched to find information.	**Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation	**Variables in games** Exploring variables when designing and coding a game.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data.	**3D modelling** Planning, developing, and evaluating 3D computer models of physical objects.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.