Computing Long Term Plan

Year	Cycle	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS		Teachers to go by a needs met approach, using technology where it fits in with their current areas of learning, utilising resources from the Project Live EYFS SOW and Barefoot Computing EYFS. Teachers refer to this document which outlines the key skills that pupils should develop in order to prepare them for formal Computing at the start of Key Stage One.					
1/2	A	**Online Safety** **Self-image and identity** **Online relationships** **Connecting systems and networks 1.1** **Technology around us** Recognising technology in school and using it responsibly	**Online Safety** **Online reputation** **Creating Media 2.2** **Digital Music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. (Chrome Music Lab)	**Online Safety** **Online bullying** **Programming Block A 1.3** **Moving a robot** Identifying what each floor robot command does and using that knowledge to start predicting the outcome of programs (BeeBots or alternative)	**Online Safety** **Managing online information** **Data and information 2.4** **Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer. (j2data pictogram)	**Online Safety** **Health, Well-being and lifestyle** **Creating Media 2.2** **Digital photography** Experience capturing, editing, and improving photos, including understanding that not all images they see online are real.	**Online Safety** **Privacy and security** **Copyright and ownership** **Programming Block B 1.6** **Programming animations** Designing and programming the movement of a character on screen to create an animation (Scratch Jnr)
	B	**Online Safety** **Self-image and identity** **Online relationships** **Connecting systems and networks 2.1** **Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.	**Online Safety** **Online reputation** **Creating Media 1.2** **Digital painting** Choosing appropriate tools in a program to create art and making comparisons with working non-digitally. (Seesaw drawing tool and paintz.app)	**Online Safety** **Online bullying** **Programming Block A 2.3** **Robot algorithms** Creating and debugging programs and using logical reasoning to make predictions. (BeeBots or alternative)	**Online Safety** **Managing online information** **Data and information 1.4** **Grouping data** Introduction to information and data by labelling and sorting objects into groups.	**Online Safety** **Health, Well-being and lifestyle** **Creating Media 1.5** **Digital writing** Using a computer to create and format text, before comparing to writing non-digitally. (J2e write, Wordpad, Seesaw note tool)	**Online Safety** **Privacy and security** **Copyright and ownership** **Programming Block B 2.6** **Programming quizzes** Using and modifying designs to create quiz questions in ScratchJr and realise these designs in ScratchJr using blocks of code (Scratch Jnr)
3/4	A	**Online Safety** **Self-image and identity** **Online relationships** **Connecting systems and networks 3.1** **Connecting Computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks (Painting program - www.paintz.app)	**Online Safety** **Online reputation** **Creating Media 3.5** **Desktop Publishing** Creating documents by modifying text, images, and page layouts for a specified purpose. (www.canva.com)	**Online Safety** **Online bullying** **Programming Block A 3.3** **Sequencing Sounds** Creating sequences in a block-based programming language to make music (Scratch)	**Online Safety** **Managing online information** **Data and information 4.4** **Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation. (Micro:Bits or Google Science Journal iPad app)	**Online Safety** **Health, Well-being and lifestyle** **Creating Media 4.2** **Audio Production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered. (Garageband iPad app or Bandlab app / browser)	**Online Safety** **Privacy and security** **Copyright and ownership** **Programming Block A 4.3** **Repetition in Shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes. (Turtle Academy Playground)

	B	**Online Safety** **Self-image and identity** **Online relationships** **Connecting systems and networks 4.1** **The internet** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. (Various websites)	**Online Safety** **Online reputation** **Creating Media 4.5** **Photo editing** Manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled. (https://pixlr.com/express/)	**Online Safety** **Online bullying** **Programming Block A 3.6** **Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions. (Scratch)	**Online Safety** **Managing online information** **Data and information 3.4** **Branching databases** Building and using branching databases to group objects using yes/no questions. (https://www.j2e.com/j2data)	**Online Safety** **Health, Well-being and lifestyle** **Creating Media 3.2** **Stop frame animation** Capturing and editing digital still images to produce a stop-frame animation that tells a story. (iMotion iPad app)	**Online Safety** **Privacy and security** **Copyright and ownership** **Programming Block B 4.6** **Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game. (Scratch)
5		**Online Safety** **Self-image and identity** **Online relationships** **Connecting systems and networks 5.1** **Systems and searching** Recognising IT systems in the world and how some can enable searching on the internet. (Google Slides)	**Online Safety** **Online reputation** **Creating Media 5.2** **Video Production** Planning, capturing, and editing video to produce a short film. (Camera app plus iMovie for editing)	**Online Safety** **Online bullying** **Programming Block 5A** **Selection in physical computing** Exploring conditions and selection using a programmable microcontroller. (Crumble controller)	**Online Safety** **Managing online information** **Data and information 5.4** **Flat file databases** Using a database to order data and create charts to answer questions. (j2data Database)	**Online Safety** **Health, Well-being and lifestyle** **Creating Media 5.5** **Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects. (Google Drawings/Publisher)	**Online Safety** **Privacy and security** **Copyright and ownership** **Programming Block 5B** **Selection in quizzes** Exploring selection in programming to design and code an interactive quiz. (Scratch)
6		**Online Safety** **Self-image and identity** **Online relationships** **Connecting systems and networks 6.1** **Communication and collaboration** Exploring how data is transferred by working collaboratively online. (Google Slides)	**Online Safety** **Online reputation** **Creating Media 6.2** **Webpage creation** Designing and creating a webpage(s), giving consideration to copyright, aesthetics, and navigation. (Google sites)	**Online Safety** **Online bullying** **Programming Block 6A** **Variables in games** Exploring variables when designing and coding a game. (Scratch)	**Online Safety** **Managing online information** **Data and information 6.4** **Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data. (Google sheets/Excel)	**Online Safety** **Health, Well-being and lifestyle** **Creating Media 6.5** **3D modelling** Planning, developing, and evaluating 3D computer models of physical objects. (Tinkercad - https://www.tinkercad.com/)	**Online Safety** **Privacy and security** **Copyright and ownership** **Programming block 5A** **Sensing movement** Using the Micro:Bit to draw together learning of all the main programming constructs (Micro:Bits)