Computing milestones for Emmaville Primary School January 2020.

Threshold concept		Milestone 1 Key Stage One (Y1/2)	Milestone 2 Lower Key Stage Two (Y3/4)	Milestone 3 Upper Key Stage Two (Y5/6)
Code This concept involves developing an understanding of instructions, logic and sequences	Motion	Continue motion by specifying the number of steps to travel, direction or turn.	Use specified screen coordinates to control movement	Set IF condition for movement. Specify types of rotation giving the number of degrees.
	Looks	Add text strings, show and hide objects and change features of an object.	Set the appearance of objects and create sequences of changes	Change the position of objects between screen layer (send to back, bring to front)
	Sound	Select sounds and control when they are heard, their duration and their volume	Create and edit sounds. Control when they are heard, their volume, duration and rests.	Upload sounds form a file and edit them. Add effects such as fade in and out and control their implantation.
	Draw	Control when drawings appear and set the pen colour, shape, size and shape.	Control the shade of pens	Combine the use of pens with movement to create interesting effects
	Events	Specify user inputs (such as clicks) to control events	Specify conditions to trigger events	Set event to control other events by 'broadcasting' information as a trigger
	Control	Specify the a nature of events (such as a single event or loop)	Use IF THEN conditions to control events or objects	Use IF THEN ELSE condition to control events or objects
	Sensing	Create conditions for actions by waiting for a user input (such as responses to	Create conditions for actions by sensing proximity or by waiting or a use input (such as proximity to a	Use a range of sensing tools (including proximity, use inputs, loudness and mouse position)

		questions like: What is your name?)	specified colour or a line or responses to questions)	to control events or actions.
	Variables and lists		Use variables to store a value	Use lists to create a set of variables
	Operators		Use the Reporter operators () + () () − () () * () () / () to perform calculations	Use the Boolean operators () < () () = () () > () () and () () or () Not () to define conditions Use reporter calculations Pick random () to () Join () () Letter () of () Length of () () Mod () This reports the remainder After a division calculation Round () () of ()
Connect This concepts involves developing an understanding of how to safely connect with others		Participate in class social media accounts. Understand online risks and the age rules for sites	Contribute to blogs that are moderated by teachers. Give examples of the risks posed online communications. Understand the term 'copyright.' Understand that comments made online that are hurtful or offensive are the same as bullying. Understand how online services work.	Collaborated with others online on sites approved and moderated by teachers. Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission,

				from the copyright holder. Understand the effect of online comments and show responsibility and sensitivity when online. Understand how simple networks are set up and used.
Communicate This concepts involves using apps to communicate one's ideas.		Use a range of applications and devices in order to communicate ideas, work and messages.	Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	Choose the most suitable applications and devices for the purposes of communication. Use many of the advanced features in order to create high quality, professional or efficient communications.
Collect This concept involves developing an understanding of databases and their uses.		Use simple databases to record information in areas across the curriculum.	Devise and construct databases using applications designed for this purpose in areas across the curriculum.	Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.