

Assessment Progression Map

Computing				
Essential opportunities Key stage 1		Essential opportunities Key stage 2		
<p>Pupils should be taught to –</p> <ul style="list-style-type: none"> Understand algorithms and how they are made using digital devices. Create simple algorithms and programs that follow a sequence of instructions. Write and test simple programs. Use logical reasoning to predict the behaviour of simple programs. Organise, store, manipulate and retrieve data in a range of digital formats. Recognise common uses of information technology beyond school. Communicate safely and respectfully online, keeping personal information private and recognise common uses of information technology beyond school. 		<p>Pupils should be taught to –</p> <ul style="list-style-type: none"> Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence (ordering) and repetition (repeated instructions) in programs; work with variables (if...then...) and various forms of input and output; generate appropriate inputs and predicted outputs to test programs. Use logical reasoning to explain how simple algorithm works, detect and correct errors in algorithms and programs (debugging). Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 		
Essential Learning Objectives	Milestone 1 End of Year 2	Milestone 2 End of Year 4	Milestone 3 End of Year 6	
Programming (Using Beebot App, Scratch)	Motion	Control motion by specifying the number of steps to travel, direction and turn (Beebots)	Use specified screen coordinates to control movement. (Scratch)	Set IF conditions for movements. (IF.....THEN....) (Scratch)
	Looks	Add text strings, show and hide objects and change the features of an object. (Scratch)	Set the appearance of an object in a program (Scratch)	Change the position of objects between screen layers (send to back, bring to front) (Scratch)
	Sound	Select sounds and control when they are heard, their duration and volume (Scratch)	Create and edit sounds. Control when they are heard, their volume and duration. (Scratch).	Create and edit sounds. Control when they are heard, their volume and duration. (Scratch).
	Draw	From year 3 onwards.	Create drawings and set the pen colour, size, shape and shade. (Scratch)	Use pens with movement to create interesting effects.
	Events	Specify user inputs (such as clicking on an icon) to control events. (Scratch)	Specify conditions to trigger events (Scratch)	Set events to control other events by "broadcasting" information as a trigger (Scratch)
	Control	Specify the nature of events (a single event or a loop). Beebot	Use IF THEN conditions to control events or objects (Scratch)	Use IF...THEN conditions to control events or objects.

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	Sensing	Create conditions for actions by waiting for a user input. (Beebot and Scratch)	Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions) (Scratch)	Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events (Scratch)
	Operators	From year 5 onwards.		Use a range of formula in Excel to represent changes in data between cells. (Excel)
Connect		<ul style="list-style-type: none"> Understand online risks and the age rules for sites (E-Safety). Send and receive emails as a class. Use a range of applications and decides in order to communicate ideas, work and messages (Email, zoom) 	<ul style="list-style-type: none"> * Give examples of risks posed by online communicators. * Understand the term "copyright" * Understand that comments made online that are hurtful or offensive are the same as bullying. * Understand a range of online services and how they work. 	<ul style="list-style-type: none"> * Collaborate with others online (email other schools using class email?) * 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 permission, from the copyright holder. * Understand how simple networks are set up and used. * Choose the most suitable applications and devices for the purposes of communication.
Essential Learning Objectives		Milestone 1 End of Year 2	Milestone 2 End of Year 4	Milestone 3 End of Year 6
Communicate		<ul style="list-style-type: none"> Generate and communicate ideas using a variety of programs and apps. (Publisher, Word, Excel) 	<ul style="list-style-type: none"> Use some of the advanced features of programs and apps in order to communicate ideas, work or messages. (Publisher, Word, Excel) 	<ul style="list-style-type: none"> Use many of the advanced features in order to create high quality, professional or efficient communications. (Publisher, Word, Excel)
Collect		<ul style="list-style-type: none"> Use tables in Word and Infant Video Toolkit to record data collected across the curriculum. 	<ul style="list-style-type: none"> Record and present numerical data using Excel in areas across the curriculum. 	<ul style="list-style-type: none"> Use Excel to devise, construct and manipulate data and present it in an effective and professional manner.