Learning in Computing Skills Progression - Year 1 - Year 6

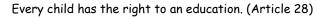|			Y1	Y2	Y3	Y4	Y5	Y6
Aims of the National Curriculum			- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation - Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems - Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems - Are responsible, competent, confident and creative users of information and communication technology					
NC Programme of Study			understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions		design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			
			create and debug simple programs		use sequence, selection, and repetition in programs; work with variables and various forms of input and output			
			use logical reasoning to predict the behaviour of simple programs		use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs			
			use technology purposefully to create, organise, store, manipulate and retrieve digital content		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			
			recognise common uses of information technology beyond school		use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content			
			use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies		select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that 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			
Progression in Learning skills	To code	Motion	Specify the number of steps to travel, direction and turn.		Use specified coordinates to control movement		Set IF conditions. Specify rotations.	
		Looks	Add text strings, show and hide objects and change features.		Set the appearance and create sequences of changes.		Change the position of things between screen layers.	
		Sound	Select sounds, their duration and volume.		Create and edit sounds.		Upload sounds and edit them.	
		Draw	Set pen colour, shape and size.		Control the shades of pen.		Combine the use of pens with movement.	
		Events	Specify user inputs.		Specify condition to trigger events.		Set events to trigger events.	
		Control	Specify the nature of events.		Use IF THEN conditions.		Use IF THEN ELSE conditions.	
		Sensing	Create conditions for actions.		Use a sensing proximity by waiting for use input.		Use a range of sensing tools.	

Every child has the right to an education. (Article 28)
Education must develop every child's personality, talents and abilities to the full. (Article 29)
Every child has the right to reliable information from a variety of sources. (Article 17)

	Variables		Use variables and use the functions to control variables.	Use lists to create a set of variables.
	Operators		Use reporter operators.	Use the Boolean operators.
	To connect	Understand online risks.	Contribute to blogs, understand risks related to online bullying.	Collaborate with others online, understand how networks are set up.
	To communicate	Use a range of applications to communicate ideas, work and messages.	To use some advanced features of applications.	Choose the most suitable application for purpose.
	To collect	Use simple databases.	Devise and construct databases.	Select appropriate applications to devise, construct and manipulate data.
	Support transition to Bishop Walsh	Children know the basics of programming; to code. Understand and know how to be safe when online.		