KS1 Computing Skills Progression

Purpose of Study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

NCSF
Nurture Technology is changing the lives of everyone. Through teaching digital literacy and e-safety, we equip our children with the skills needed to stay safe online and be responsible computer users. Within the safety of our nurtured environment we will prepare our pupils for their future in the digital world.
Cherish All children will be provided with opportunities to understand how Computing and Information Technology are beneficial and integral to everyday life. Through practical tasks set in real-world contexts, the children's understanding of the world in a local and global context will develop providing them with the motivation and enthusiasm to cherish their technological and computing skill.
Shine Through various competitions and challenges, children have the opportunity to shine individually or as part of a group. Our broad and balanced curriculum provides children with opportunities to be confident, innovative users of a range of ICT and devices, preparing them for their role in an ever-increasing technological world.
Flourish Through sequenced and progressive learning, children will understand the part Programming and Algorithms play in the world around them as well as how to present and manipulate various forms of media and communication tools to flourish as citizens in our digital world.

Skill	Reception	Year 1	Year 2	End of Key Stage expectations	Vocabulary
Algorithms and Programming	ELG: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	I can create a series of instructions.	I can use a range of instructions (e.g. direction, angles, turns). I understand that algorithms are used on digital devices. I understand that programs require precise instructions.	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	Algorithm Program Digital Device Instructions Input Output Debug Sequence Repeat
		I can plan a journey for a programmable toy.	I can test and amend a set of instructions. I can find errors and amend. (debug) I can write a simple program and test it.	Create and debug simple programs	
			I can predict what the outcome of a simple program will be (logical reasoning).	Use logical reasoning to predict the behaviour of simple programs	
Digital Literacy and Research		I can create digital content. I can store digital content. I can retrieve digital content. I can use a web site. I can use a camera. I can record sound and play back.	I can organise digital content. I can retrieve and manipulate digital content. I can navigate the web to complete simple searches.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Digital Website Save Camera Record Retrieve Navigate Search Search-engine File Folder

Information Technology			I know how technology is used in school and outside of school.	Recognise common uses of information technology beyond school	Information Technology
E-safety		I can use technology safely. I can keep personal information private.	I use technology safely and respectfully. I know where to go for help if I am concerned.	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	e-Safety Online Personal Private Information Username Password Technology Report Content