

Stelling Minnis CEP School

Computing Progression Document



Computing: Early Years

Whilst Technology is no longer an Early Years Goal, computing and technology is an important and integral part of the Early Years.

Our Computing in the EYFS is centred around play-based activities that focus on building children's listening skills, curiosity, creativity and problem solving.

Children will be encouraged to be active, playful, explorative, critical and creative when using a range technology.

Allowing children the opportunity to explore technology means that not only will they develop a familiarity with equipment and vocabulary but will also prepare them with the skills that they will need for the Key Stage 1 Computing.

Technology in the Early Years can mean:

taking a photograph with a camera or tablet

searching for information interesting to them on the internet with adult support

playing games on the interactive whiteboard

exploring an old typewriter or other mechanical toys

using a Beebot

watching a video clip

listening to music on CD player/tablet

recognising and using technology in their own home, including computers, tablets, remote controls

recording videos of each other, e.g. telling stories

drawing a picture on a screen using an art program

knowing how to handle equipment safely

beginning to give reasons why we need to stay safe online

Computing: Key Stage 1

	Algorithms	Create programs	Reasoning
	<i>Pupils should be taught to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</i>	<i>Pupils should be taught to create and debug simple programs</i>	<i>Pupils should be taught to use logical reasoning to predict the behaviour of simple programs</i>
Year 1	<ul style="list-style-type: none"> • create a series of instructions and plan a journey for a programmable toy 	<ul style="list-style-type: none"> • create, store and retrieve digital content 	
Year 2	<ul style="list-style-type: none"> • understand that algorithms are used on digital devices 	<ul style="list-style-type: none"> • write a simple program and test it 	<ul style="list-style-type: none"> • predict what the outcome of a simple program will be (logical reasoning).

Computing: Key Stage 1

	Using technology	Uses of IT beyond school	Safe use
	<i>Pupils should be taught to use technology purposefully to create, organise, store, manipulate and retrieve digital</i>	<i>Pupils should be taught to recognise common uses of information technology beyond school</i>	<i>Pupils should be taught to 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</i>
Year 1	<ul style="list-style-type: none"> • use a website and a camera • record sound and play back 	<ul style="list-style-type: none"> • talk about some of the IT uses in their own home 	<ul style="list-style-type: none"> • use technology safely • keep personal information private
Year 2	<ul style="list-style-type: none"> • understand that programs require precise instructions • organise, retrieve and manipulate digital content 	<ul style="list-style-type: none"> • know how technology is used in school and outside of school 	<ul style="list-style-type: none"> • know where to go for help if concerned.

Computing: Key Stage 2

	Create programs	Develop programs	Reasoning	Networks
	<i>Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</i>	<i>Pupils should be taught to use sequence, selection, and repetition in programs; work with variables and various forms of input and output</i>	<i>Pupils should be taught to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</i>	<i>Pupils should be taught to 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</i>
Year 3	<ul style="list-style-type: none"> • write programs that accomplish specific goals 	<ul style="list-style-type: none"> • design a sequence of instructions, including directional instructions 	<ul style="list-style-type: none"> • discern when it is best to use technology and where it adds little or no value 	<ul style="list-style-type: none"> • navigate the web to complete simple searches
Year 4	<ul style="list-style-type: none"> • give an 'on-screen' robot specific instructions that takes them from A to B 	<ul style="list-style-type: none"> • experiment with variables to control models 	<ul style="list-style-type: none"> • make an accurate prediction and explain why they believe something will happen (linked to programming) 	<ul style="list-style-type: none"> • know how to search for specific information and know which information is useful and which is not
Year 5	<ul style="list-style-type: none"> • use technology to control an external device 	<ul style="list-style-type: none"> • develop a program that has specific variables identified 	<ul style="list-style-type: none"> • analyse and evaluate information reaching a conclusion that helps with future developments 	
Year 6	<ul style="list-style-type: none"> • write a program that combines more than one attribute 	<ul style="list-style-type: none"> • develop a sequenced program that has repetition and variables identified 	<ul style="list-style-type: none"> • design algorithms that use repetition and 2-way selection 	

Computing: Key Stage 2

	Search engines	Using programs	Safe use
	<i>Pupils should be taught to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</i>	<i>Pupils should be taught to 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</i>	<i>Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</i>
Year 3	<ul style="list-style-type: none"> • use a range of software for similar purposes • collect and present information 	<ul style="list-style-type: none"> • understand what computer networks do and how they provide multiple services 	<ul style="list-style-type: none"> • use technology respectfully and responsibly • Know different ways they can get help if concerned
Year 4	<ul style="list-style-type: none"> • select and use software to accomplish given goals 	<ul style="list-style-type: none"> • produce and upload a podcast 	<ul style="list-style-type: none"> • recognise acceptable and unacceptable behaviour using technology
Year 5	<ul style="list-style-type: none"> • understand how search results are selected and ranked 	<ul style="list-style-type: none"> • combine sequences of instructions and procedures to turn devices on and off 	<ul style="list-style-type: none"> • understand that they have to make choices when using technology and that not everything is true and/or safe
Year 6	<ul style="list-style-type: none"> • be aware that some search engines may provide misleading information 	<ul style="list-style-type: none"> • present the data collected in a way that makes it easy for others to understand 	<ul style="list-style-type: none"> • Be increasingly aware of the potential dangers in using aspects of IT and know when to alert someone if feeling uncomfortable