



Clipston Primary School: Two-Year Rolling Programme Overview for Computing

This document should be used with reference to the Big Picture for Computing

Reception	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
- Begin to explore the keyboard typing letters in familiar words including their name. - Use the space bar. - Use the delete key. - Use "shift" to make a capital letter. - Begin to type short sentences and captions. - Use the full-stop key. - Know that a search engine can be used to find information online, such as familiar teaching resources. - Recognise that a range of technology is used in places such as homes and schools, and for particular purposes. - Use laptops and i-pads to navigate instructions / commands to play simple games. - Know the terms mouse, keyboard, key, delete, save, mouse-pad, cursor. - Internet safety – know who to tell if something concerns them while online. Be able to articulate that they "feel worried" or "uncomfortable" "unsure" or "have butterflies in their tummy".	Year 1: - Mouse and keyboard skills - Introduction to programming - Music creation - Internet safety Year 2: - Internet research - Programming with Scratch Jr - E-book creation - Internet safety Retrieval practice: Other opportunities for computing will arise through other curriculum subject lessons, for example, internet research to find images, taking photos on the iPads, simple Word documents for publishing writing in English etc.	Year A: - Document editing and creation, including branching database - Animation - Programming in Kodu - Internet safety Year B: - Further internet research - Comic creation - Programming in Scratch - Internet safety Retrieval practice: Other opportunities for computing will arise through other curriculum subject lessons, for example, internet research for self-study, photo (copying, pasting, cropping and manipulating) for Double Page Projects, Word software for publishing writing in English etc.	Year A: - Graphic design - Image editing: - Programming in Scratch - Internet safety Year B: - App design - Data handling - Text-based programming - Internet safety Retrieval practice: Other opportunities for computing will arise through other curriculum subject lessons, for example, PowerPoint presentations in history / geography / science, excel graphs in maths, internet research for self-study, photo (copying, pasting, cropping and manipulating) for Double Page Projects, iMovie editing for drama, Word software for publishing writing in English etc.

Clipston Primary School – Progression & End Points for Computing

End point outcomes are integrated into the programme of units taught.

R	KS1	LKS2	UKS2
Programming Skills			
- Has progressed from programmable toys to unplugged activities. - Can use code blocks to sequence simple instructions. - Can explore programming using toys, e.g. beebot.	- With support, understands what an algorithm is. - Can use a simple program (e.g. Scratch Junior). - Can debug a simple program. - Can use logical reasoning to predict the behaviour of simple programs.	- With support, can design and write programs with accurate sequences of instructions that accomplish specific goals using Scratch and Kodu. - Can use sequence, selection and repetition in programs. - Can test programs using models and simulations, using logical reasoning to detect problems, make changes and find out what happens as a result. - Can debug simple programs and explain how they were solved.	- Can design and write more complex programs with sequences of instructions that accomplish specific goals using Scratch and text-based programming (e.g. CodeMonkey). - Can design and write programs, working with variables, inputs and outputs. - Can use logical reasoning to solve problems in programming and model situations and processes, predicting what will happen when variables and rules within a model are changed. - Can debug more complex programs with increasing confidence and independence, solving these problems by decomposing them into smaller parts.

R	KS1	LKS2	UKS2
Digital Content			
- Knows the function of a growing number of keyboard keys. - Can complete a simple game on a computer. - Can talk about a range of technology and how it is used in the home and at school.	- On a computer, can select and use appropriate software for tasks (e.g. Word), exploring font, typeface, layout, page orientation. - Can use technology purposefully to create, organise, store, manipulate and retrieve digital content. - Is becoming more confident when creating, naming, saving and retrieving content.	- On a computing device, can select, use and combine a variety of software including for example, Word, PowerPoint, apps and internet-based software. - Can use a variety of software to collect, analyse, evaluate and present data and information, making informed choices.	- On a computer, can select, use and combine a variety of software including for example, Word, PowerPoint, Excel, apps, Google software and internet-based software. - Can make connections to the audience when designing and creating digital content to collect, analyse, evaluate and present data and information.

R	KS1	LKS2	UKS2
Digital Literacy			
• Can explore Digital Literacy to attain learning goals in English and Maths. • Is aware of search engines and their possible uses. • Knows who to tell if something concerns them while online. • Is kind on and off the internet.	• Can explore and is beginning to identify computer systems, including hardware and software used in everyday life. • Can use search engines effectively, discussing the use of reliable sources and knows the implications of inappropriate online searches. • Can keep personal information private. • Is kind on and off the internet. • Knows to report concerns about content, contact and inappropriate behaviours online to a trusted adult.	• Demonstrates knowledge of computer systems and hardware by describing devices and software used in everyday life. • Can discuss opportunities for online communication and collaboration. • Can use search engines effectively, becoming discerning in evaluating digital content, checking the plausibility and usefulness of the information they find. • Knows the principles of copyright and the need to cite the original source when using information found online. • Can identify ways to stay safe online and make judgements in order to stay safe while communicating with others. • Is a good online citizen and friend. • Can recognise online behaviours that would be unfair, showing respect for individuals and knowing that they should think about the consequences before sending / posting. • Can identify potential risks when presented with scenarios and knows who to tell if anything worries them on the internet or other online technologies.	• Demonstrates a knowledge and understanding of computer systems and hardware by describing devices and software used in everyday life, including types of service offered e.g. through email, world wide web, and video conferencing. • Understands how computer systems are used for communication and collaboration. • Can use search technologies, taking account of accuracy and bias when searching for and selecting information and using different sources to check information found, considering the potential for 'fake news'. • Knows the principles of copyright, plagiarism and the need to cite the original source when using information found online. • Knows common online safety rules, can find "report" buttons in commonly used sites and name sources of help (e.g. ChildLine and CEOP) applying this by demonstrating the safe and respectful use of online services. • Know their right to personal privacy and mental wellbeing, and that this also applies to others, when using computing technologies.