Year 4 Computing Progression Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**Create digital content(4.4 -5)(4.6 -3)(4.9 -4)/e-safety**	**Communication &Networks(4.7-3)/e-safety**	**Data & Data Representation (4.3 -6)/ e-safety**	**Hardware & Processing (4.8 -2) / e-safety**	**Algorithms/ Programming & Development(4.1-6)(4.5 -4)/e-safety**	
Learning Objective (from DC Pro)	Collects, organise and presents data and information in digital content. (AB)	• Knows that some websites may be unreliable and considers the validity of websites (EV)	Recognises that data can be structured to make it useful. (AB) (DE) • Understands how bit patterns represent images (AB)	Knows that computers collect data from various input devices, including sensors and application software.(AB) Understands the difference between hardware and application software, and their roles within a computer system. (AB)	• Uses diagrams to express solutions. (AL) • Uses logical reasoning to predict outputs, showing an awareness of inputs. (AL) • Uses if statements, and loops, within programs. (AL) • Declares and assigns variables. (AB) • Uses a sequence of selection statements in programs, including an if, then and else statement. (AL)	
	Recognises what is acceptable and unacceptable behaviour when using technologies and online services. (EV)					
Skills	History of Computing •To import images (edit if necessary) and text •Create a presentation with their own multiple choice questions which show an understanding of the information given	•Analyse the web address, text and graphics on websites •Decide on the validity of the website •Offer coherent reasons for their decisions	•Understand the term 'binary' •Create their own more complex images on the computer and code and decode using binary •Ask relevant questions and organise eight objects in a database	• Know the terms 'input' and 'output' • Know how some familiar devices use inputs and outputs • Know the terms computer system , hardware and software and know the differences between them • Know some of the functions of the Operating System (OS)	• Use the 'move' and 'repeat' blocks accurately and start a conversation between the sprites • Use the 'change x' and 'change y' blocks. • Understand how to use the 'if' block • Understand how a variable works and add a variable to a game • Uses if statements, and loops, within programs. (AL) • Declares and assigns variables. (AB) • Uses a sequence of selection statements in programs, including an if, then and else statement. (AL)	
	Copyright and ownership • When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. • I can give some simple examples	**Health, Well-being and Lifestyle** II can explain how using technology can distract me from other things I might do or should be doing I can identify times or situations when I might need to limit the amount of time I use technology I can suggest strategies to help me limit this time	**Online relationships/ Online bullying** •I can describe strategies for safe and fun experiences in a range of online social environments. •I can give examples of how to be respectful to others online. •I can identify some online technologies where bullying might take place. •I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). •I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation).	**Online reputation** • I can describe how others can find out information about me by looking online. • I can explain ways that some of the information about me online could have been created, copied or shared by others.	**Privacy and security** • I can explain what a strong password is. • I can describe strategies for keeping my personal information private, depending on context. • I can explain that others online can pretend to be me or other people, including my friends. • I can suggest reasons why they might do this. • I can explain how internet use can be monitored.	**Self-image and identity** • I can explain how my online identity can be different to the identity I present in 'real life'. • Knowing this, I can describe the right decisions about how I interact with others and how others perceive me.
Vocabulary	*creating and modifying, specific purpose, photo modifying, keyboard shortcuts, bullet points, spell check, constructive feedback*	*information collection, reliability, valid, false, persuasion, opinion, bias, validity, cross reference, interpretation ,*	*database creation, database searches, inaccurate data, branching database, similarities, differences, characteristics Code, decode, binary, pixel, bitmap*	*Sensor, input/output, environmental changes, operating system, application software, hardware*	*sensors, open ended problems, bugs in programs, complex programming, decomposition, algorithm, debug, flow diagram, loop/repeat, animate, theme, maze. Undo, axes, negative numbers, change x' and 'change y' blocks, 'if……', sensing, co-ordinates, variable, set/change, 'if…….else'*	
	Acceptable/unacceptable behaviour					

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Ongoing skills **Create Digital Content**	**General ICT Skills:** • To be able to choose images and download into a file • To download images from the iPad into files on the computer.	**General Graphics /Video Skills** • To use a digital camera to take a photo and save it • To edit a photo to enhance its appearance. • To capture video • To discuss which videos to keep and why • To arrange a short film that conveys meaning	**General Sound Recording Skills**	**Word Processing** • To be able to cut and paste effectively • To use a spell checker	**Presentation skills** • To create a presentation with graphics and text • To be able to talk alongside a presentation • To add sound/video to a presentation • To be able to change the running order and slide timings	**Internet Skills** • To be able to use a search engine to find a specific website. • To use note-taking skills to decide which text to copy and paste into a document. • To use tabbed browsing to open two or more web pages at the same time. • To open a link to a new window

e-safety

Managing online information
- Analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what criteria have to be met before something is a 'fact'.
- Describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites).
- Describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.
- Explain that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people.
- Explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true

🟥	**Computer Science**
🟦	**Information Technology**
🟨	**Digital Literacy**