Year 5 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 (2.7 -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)	Recognises the audience when designing and creating digital content. (EV) Understands the potential of information technology for collaboration when computers are networked. (GE)	• Knows that the Internet is a collection of computers connected together sharing the same way of communicating. The internet is not the web, and the web is not the internet. (AB)	• Performs more complex searches for information (AL) (GE) EV • Analyses and evaluates data and information, and recognises that poor quality data leads to unreliable results, and inaccurate conclusions. (AL)(EV) • Uses formulas for the 4 basic operations (AL) (GE)	Knows the main components in a LAN (local area network) and how they are connected and the advantages and disadvantages of the system (AB)	• Designs solutions (algorithms) that use repetition and two-way selection i.e. if, then, else (AL) • Designs a game by decomposing it into parts. (DE) • Creates programs that achieve given goals. (AL) • Uses a range of arithmetic operators (+ - * /) and relational operators (less than, more than, equal to) (AL) (GE)	
	Demonstrates responsible use of technologies and online services, and knows a range of ways to report concerns. (EV)					
Skills			• Use two criteria to search a database and search records • Select the correct fields to search • Move between applications • Use graphs to find implausible data and offer sensible corrections • Offer logical answers to implausible data • To enter data into cells • Use cell references • Enter data into a spreadsheet • Use formulas for all 4 operations • To copy a formula in to other cells • To copy and paste grids	• Know the main components in a LAN and how the components are connected • Show the flow of data in a LAN • Know the advantages and disadvantages of sharing on a network	• Complete a flow diagram following repeat patterns • Break down a game into parts and order them • Debug the complex block programs created • Match Scratch blocks to statements • Complete an algorithm using repetition • Recognise and continue patterns in coding • Create a program that achieves given goals • Add variables and operators to a game	
Skills	**Copyright and ownership** • I can assess and justify when it is acceptable to use the work of others. • I can give examples of content that is permitted to be reused.	**Health, Well-being and Lifestyle** • I can describe ways technology can affect healthy sleep and can describe some of the issues • I can describe some strategies, tips or advice to promote healthy sleep with regards to technology	**Online relationships/ Online bullying** • I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/our fault. • I can make positive contributions and be part of online communities. • I can describe some of the communities in which I am involved and describe how I collaborate with others positively. • I can recognise when someone is upset, hurt or angry online. • I can describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone. • I can explain how to block abusive users. • I can explain how I would report online bullying on the apps and platforms that I use. • I can describe the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline).	**Online reputation** • I can search for information about an individual online and create a summary report of the information I find • I can describe ways that information about people online can be used by others to make judgments about an individual.	**Privacy and security** • I can create and use strong and secure passwords. • I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. • I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing.	**Self-image and identity** • I can explain how identity online can be copied, modified or altered. • I can demonstrate responsible choices about my online identity, depending on context.
Vocabulary	*Online sharing, multimedia effects, multimedia modification, transitions, hyperlinks, editing tools, refining, online sharing*	*collaboration, different networks, searching strategies, web pages,*	*spreadsheets, complex searches (and/or; <>), problem solving, present answers, analysed information, question data, interpret, criteria, narrowing a search, fields, implausible, errors, spreadsheets Cell, cell reference, formulas*	*school network, LAN, components, server, workstation, client, IP address, switch Wireless access point*	*Explore procedures, refine procedures, variable, hardware and software control, change inputs, different outputs, articulate solutions, flow chart/diagram, repetition, loop*	
Vocabulary	*responsible online communication, informed choices, virus threats*	*responsible online communication, informed choices, virus threats*	*responsible online communication, informed choices, virus threats*	*responsible online communication, informed choices, virus threats*	*responsible online communication, informed choices, virus threats*	*responsible online communication, informed choices, virus threats*

Year 5 Computing Progression Map

		General ICT Skills:	General Graphics /Video Skills	General Sound Recording Skills	Word Processing	Presentation skills	Internet Skills
Ongoing skills	Create Digital Content		• To be able to make an information poster using graphics skills to good effect.	• To create a simple digital piece of music using an app • Use an app and record instruments and/or their own voice and add to a piece of music.	• To use the word count tool to check the length of a document. • To be able to use bullets and numbering tools.	• To use a range of presentation applications • To insert hyperlinks between pages for naviagtion • To create Mind maps of topics	• To search for something online. • To opening multiple web pages without leaving the search. • To use Google to exclude words from a search. • To use more advanced search options in Google. • To name sources • To find physical places with Google Maps and Google Streetview. • To understand the terms plagiarism and copyright • To present their research in some form - including graphs/tables • To use QR codes • To collaborate online e.g. using blogs, google docs
	e-safety	**Managing online information** ● **Use different search technologies.** ● **Evaluate digital content and can explain how I make choices from search results.** ● **Explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence.** ● **Understand the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead).** ● **Explain what is meant by 'being sceptical'. I can give examples of when and why it is important to be 'sceptical'.** ● **Explain what is meant by a 'hoax'. I can explain why I need to think carefully before I forward anything online.** ● **Explain why some information I find online may not be honest, accurate or legal.** ● **Explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose).**					

(red)	**Computer Science**
(blue)	**Information Technology**
(yellow)	**Digital Literacy**