Year 6 Computing Progression Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**Create digital content e-safety**	**Communication & Networks (6.4 -4)(6.6 -3)/e-safety**	**Data & Data Representation (6.3 -5)(6.7 -6)(6.8 -4)(6.9 -8)/ e-safety**	**Hardware & Processing/ e-safety**	**Algorithms/ Programming & Development(6.1 -6)(6.5 -3)/e-safety**	
Learning Objective (from DC Pro)	• Creates digital content to achieve a given goal through combining software packages and internet services to communicate with a wider audience e.g. blogging. (AL) • Uses criteria to evaluate the quality of solutions and can identify improvements making some refinements to the solution, and future solutions. (EV)	• Discusses the validity and reliability of different viewpoints from web-based sources (EV) • Understands how to effectively use search engines, and knows how search results are selected, including that search engines use 'web crawler programs'. (AB) (GE) (EV)	• Knows that digital computers use binary to represent all data (AB)	• Models how the internet works and how data packets are sent and received. (AB)	• Recognises that different solutions exist for the same problem. (AL) (AB) • Designs solutions by decomposing a problem and creates a sub-solution for each of these parts (decomposition). (DE) (AL) (AB) • Design, writes and debugs programs using procedures. (AL) (DE) (AB) (GE)	
	I can describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. **I know and can give examples of how I might get help, both on and offline**					
		• Search the Internet more efficiently • To find specific information • Understand how a search engine works • Know how google searches are ranked • Know why one search method is more effective than another	• Understand that computers use binary code to communicate • Use binary code for numbers and letters • Decode messages in binary	• Name and explain how the hardware devices are connected on the internet • Explain how data packets are sent and received on the internet	• Work with variables • Use broadcast and receive blocks • Match the Scratch blocks to parts of the algorithm • Place variable blocks in the correct place in an algorithm • Use the 'ask' block • Use operator blocks Using a script based programming language- • Save a procedure and use them • Recognise the importance of using procedures in programming • Use a loop and nested loop in their programs • To create, edit, save, open, and use saved procedures in a program • Debug the program	
Skills	**Copyright and ownership** • I can demonstrate the use of search tools to find and access online content which can be reused by others. • I can demonstrate how to make references to and acknowledge sources I have used from the internet.	**Health, Well-being and Lifestyle** • I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose • I can assess and action different strategies to limit the impact of technology on my health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise) • I can explain the importance of self-regulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents)	**Online relationships/ Online bullying** • I can show I understand my responsibilities for the well-being of others in my online social group. • I can explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming). • I can demonstrate how I would support others (including those who are having difficulties) online. • I can demonstrate ways of reporting problems online for both myself and my friends. • I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me • I can identify a range of ways to report concerns both in school and at home about online bullying.	**Online reputation** • I can explain how I am developing an online reputation which will allow other people to form an opinion of me. • I can describe some simple ways that help build a positive online reputation.	**Privacy and security** • I use different passwords for a range of online services. • I can explain what app permissions are and can give some examples from the technology or services I use. • I can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories). • I know what to do if my password is lost or stolen. • I can describe simple ways to increase privacy on apps and services that provide privacy settings • I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing)	**Self-image and identity** • I can explain why I should keep asking until I get the help I need. • I can describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. I know and can give examples of how I might get help, both on and offline. • I can describe ways in which media can shape ideas about gender. • I can identify messages about gender roles and make judgements based on them. • I can challenge and explain why it is important to reject inappropriate messages about gender online.

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Vocabulary	*appropriate online tools, audience, atmosphere, structure, Copyright, information collection, HTML code , storing*	*information movement, different audiences, research strategies, search result rankings, acknowledge resources,*	*Generate, process, interpret, store, present information, plausibility, appropriate data tool, interrogate, investigations*	*Internet parts, connecting devices*	*predicting outputs, plan/program/test and review a program, program writing, control mimics and devices, measure input, create variables, link errors*
	Media, gender sterotypes				

Ongoing skills

Create Digital Content

General ICT Skills:	General Graphics /Video Skills	General Sound Recording Skills	Word Processing	Presentation skills	Internet Skills
	• To plan a multi-scene animation including characters, scenes, camera angles and special effects • To take a series of pictures to form an animation • To trim and arrange shots to convey meaning • To edit/improve their animation • To add titles, credits, slide transitions, special effects and talk about the effect these have on the audience • To create a storyboard and capture videos for a purpose • To trim, arrange and edit audio levels to improve the quality	• To loop pieces of music in an app • Use an app to create different styles of music	• To confidently choose the correct page set up option when creating a document. • To confidently use text formatting tools, including heading and body text. • To use the 'hanging indent' tool to help format work where appropriate (e.g. a play script).	• To make a multimedia presentation that contains: sound, animation, video and buttons to navigate.	• To use complex searches using such as '+' 'OR' "Find the phrase in inverted commas".

e-safety

Managing online information
- Use search technologies effectively.
- Explain how search engines work and how results are selected and ranked.
- Demonstrate the strategies I would apply to be discerning in evaluating digital content.
- Describe how some online information can be opinion and can offer examples.
- Explain how and why some people may present 'opinions' as 'facts'.
- Define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting').
- Demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important.
- Identify, flag and report inappropriate content.

Computer Science	
Information Technology	
Digital Literacy	