Year 6 – Computing Overview

Information Technology

NC Objectives	Computing strand	Skills/Knowledge	Apps/Software	Subject/Lessons
Select, use and combine a variety of software (including internet services) on a range of digital devices Design and create a range of programs, systems and content that accomplish given goals including collecting, analysing, evaluating and presenting data and information	Word processing / typing	• Confidently choose the best application to demonstrate my learning • Format text to suit a purpose • Publish my documents online regularly and discus the audience and purpose	Pic collage Seesaw Google Docs Book creator Popplet	Literacy History Geography
	Data handling	• Write spreadsheet formula to solve maths questions • Create and publish online quizzes with a range of media (images/video/etc)	Graphs Numbers Google docs Kahoot / mentimeter	Science Maths
	Presentations, web design and eBook creation	• Create a website with a range of media • Choose applications to communicate to a specific audience • Evaluate own content and consider ways to make improvements	Google docs Adobe Spark page Keynote Powerpoint	Literacy
	Animation	• Mix animations and video recordings to create video interviews • Plan, script and create a 3D animation to explain a concept or tell a story • Choose and create different types of animations to explain leanings	Puppetpals Chatterkid Seesaw Puppetmaster	Literacy
	Video Creation	• Use the green screen masking tool with more than one character • Can use picture tools in iMovie • Add animated subtitles in films • Create videos using a range of media (green screen, animations, film, image)	puppet Edu Doink Adobe Spark video Imovie	PSHE Literacy
	Photography and digital art	• Edit a picture to remove items, add background, merge 2 photos • Evaluate and discuss images explaining effects and filters used	iPad camera Mark up Pic collage Sketches pro Paper	Art
	Augmented reality and virtual reality	• Create an interactive VR experience • Create an animated object and bring it into existence using AR • Add multiple objects into surrounds through AR to explain a concept	AR makr Figment AR Google expeditions Merge Cube?	Geography
	Sound	• Add voice over and edit sound clips (volume, pitch, fade, effects) to create a podcast or film • Compose a soundtrack that can be added to a film project	Seesaw Keezy Voice Memos Garageband	Literacy Music

Year 6 – Computing Overview

Computer Science

NC Objectives	Computing strand	Skills/Knowledge	Apps/Software	Subject/Lessons
Design, write and debug programs that accomplish specific goals including controlling or simulating physical systems Solve problems by decomposing them into smaller parts Sequence, selection and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms Understand computer networks including the internet; how they can provide multiple services such as the WWW and the opportunities they offer for communication Use search technologies effectively and appreciate how results are selected and ranked	Computational thinking	• Recognise and make use of patterns across programming projects • Write precise algorithms for use when programming • Identify variables needed and their use in selection and repetition • Decompose code into sections for more effective debugging • Critically evaluate work and suggest improvements	Code Studio Alex	Computing unplugged week Literacy
	Coding and programming	• Use a range of sequence, selection and repletion commands • Create procedures to hide complexity in programs • Identify and write generic code for use across multiple projects • Critically evaluate work and suggest improvements • Identify and use basic HTML tags	Code Studio Alex	Computing
	Computer networks	• Understand what HTML is and recognise HTML tags • Know a range of HTML tags • Create a webpage using HTML tags		Computing unplugged

NC Objectives	Computing strand	Skills/Knowledge	Apps/Software	Subject/Lessons
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact 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 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	Self-image and identity	• Understand ways in which media can shape ideas about gender • Challenge and explain why it is important to reject inappropriate messages about gender online • Describe issues online that might make me or others feel sad, worried, uncomfortable or frightened and how I might get help on and offline	Puppet Edu Chatterkid iPad Video	PSHE 'Being Me' PSHE 'Relationships' PSHE 'Changes' Safer Internet Day RSE Mental Health Week
	Online relationships	• Understand responsibilities for the well-being of others in my online social group • Explain how impulsive communications online may cause problems (e.g. flaming, content produced in live streaming) • How to support others (including those who are having difficulties) online • Reporting problems online for both myself and my friends	Puppet Edu iPad Video Chatterkid Social Media (Snapchat, Facebook, Tik Tok) Messaging/Video Chat	PSHE 'Relationships' Safer Internet Day Anti-Bullying Week
	Online reputation	• Develop an online reputation which allows others to form an opinion of me • Simple ways to build a positive online reputation	Social Media School Website (class pages) School Twitter iPads	Safer Internet Day Mental Health Week
	Online bullying	• Capture bullying content as evidence (e.g screengrab, URL, profile) to share with others who can help • Identify ways to report concerns in school and at home about online bullying	Voice Memos Puppet Edu Video Recording Chatterkid	PSHE 'Relationships' PSHE 'Celebrating Differences' Anti-Bullying Week
	Managing online information	• Search technologies effectively • Explain how search engines work and how results are selected and ranked • Describe how online information can be opinion and ways people may present 'opinions' as 'facts'. Understand the terms 'influence', 'manipulation' and 'persuasion' and how this might be encountered online (e.g. advertising and 'ad targeting')	Search Engines Google Maps YouTube iPads Computer	**All subjects** Safer Internet Day Literacy

		• Strategies to analyse and evaluate the validity of 'facts' • Identify, flag and report inappropriate content	Voice activated Searching (Siri, Alexa)	
	Health, well-being and lifestyle	• Know systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and their purpose • Strategies to limit the impact of technology on health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise) • How to self-regulate the use of technology and useful strategies (e.g. monitoring my time online, avoiding accidents)	Stopwatch Alarm YouTube	PSHE 'Healthy Me' Safer Internet Day P.E. Timetable
	Privacy and security	• Use different passwords for a range of online services • Strategies for managing those passwords (e.g. password managers, acronyms, stories) • Know what to do if my password is lost or stolen • Explain what app permissions are and can give some examples from the technology or services used • Increase privacy on apps and services that provide privacy settings • Understand some online content target people to gain money or information illegally • Strategies to help identify such content (e.g. scams, phishing)	iPad Games Social Media Email	Safer Internet Day
	Copyright and ownership	• Use of search tools to find and access online content which can be reused by others • How to make references to and acknowledge sources used from the internet	Search Engine Word Doc	**All Subjects**