Year 5 – 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	• Start to apply other useful effects to documents such as hyperlinks • Import sounds to accompany and enhance the text in documents • Organise and reorganise text on screen to suit a purpose	Pic collage Seesaw Google Docs Book creator Popplet	Literacy History Geography
	Data handling	• Create online multiple choice questionnaire and analyse the results • Input data into a spreadsheet and create a graph/chart • Use simple functions such as SUM	Graphs Numbers Google docs Kahoot / mentimeter	Science Maths
	Presentations, web design and eBook creation	• Collaborate with peers using online tools (e.g. shared document) • Create and export a presentation demonstrating understanding of a range of media • Create a website and embed video	Google docs Adobe Spark page Keynote Powerpoint	Literacy
	Animation	• Take animations of different characters and edit them together • Add green screen effects to a stop motion animation	Puppetpals Chatterkid Seesaw Puppetmaster	Literacy
	Video Creation	• Use cutaway and splitscreen tools in imovie • Evaluate and improve my videos, explaining why • Edit and improve greenscreen clips exploring creative ways to use the tool such as green clothing and the masking tool	puppet Edu Doink Adobe Spark video Imovie	PSHE Literacy
	Photography and digital art	• Enhance digital images and photographs using crop, brightness, contrast • Manipulate images to create digital art • Explain how to photoshop images and how this is used in the media	iPad camera Mark up Pic collage Sketches pro	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 • Create a remix of a popular song	Seesaw Keezy Voice Memos Garageband	Literacy Music

Year 5 – 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 | • Solve problems by breaking them down into smaller parts
• Use selection in algorithms
• Recognise the need for repetition in some algorithms
• Use logical reasoning to explain how a variety of algorithms work
• Use logical reasoning to locate and correct errors in algorithms | Code Studio
Alex | Computing unplugged week
Literacy |
| | Coding and programming | • Use selection in programs
• Use conditions in repetition commands
• Work with variables
• Evaluate work and identify errors | Code Studio
Alex | Computing |
| | Computer networks | • Understand how we view web pages on the internet
• Use search technologies effectively
• Appreciate how pages are ranked in search results
• Understand that web spiders are used to index the web | | Computing unplugged |

Digital literacy

Year 5 – Computing Overview

Digital literacy

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	• Explain how identity online can be copied, modified or altered • Make responsible choices about online identity, depending on context	Puppet Edu Chatterkid iPad Video Snapseed	PSHE 'Being Me' PSHE 'Relationships' Safer Internet Day
	Online relationships	• Understand that there may be people online who want to do harm and recognise that this is not my/our fault • Make positive contributions and be part of online communities • Recognise communities in which I am involved and how I collaborate with others positively	Puppet Edu iPad Video Chatterkid Social Media (Snapchat, Facebook, Tik Tok) Messaging/Video Chat	PSHE 'Relationships' Safer Internet Day Anti-Bullying Week
	Online reputation	• Search for information about an individual online and create a summary report of the information • Describe ways that information about people online can be used by others to make judgments about an individual	Social Media School Website (class pages) School Twitter iPads	Safer Internet Day Mental Health Week
	Online bullying	• Recognise when someone is upset, hurt or angry online • Get help for someone that is being bullied online and assess when to do or say something or tell someone • Understand how to block abusive users • Know how to report online bullying on apps and platforms • Recognisee helpline services who can support when help is needed (e.g. Childline)	Voice Memos Puppet Edu Video Recording Chatterkid	PSHE 'Relationships' PSHE 'Celebrating Differences' Anti-Bullying Week
	Managing online information	• Use different search technologies • Evaluate digital content and can explain how to make choices from search results • Explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence	Search Engines Google Maps YouTube iPads Computer	**All subjects** Safer Internet Week Literacy

		• Understand the difference between online misinformation (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead). • Explain what is meant by 'being sceptical' and why it is important • Recognise what is meant by a 'hoax' • Think carefully before forwarding anything online • Explain why information 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. Assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose)	Voice activated Searching (Siri, Alexa)	
	Health, well-being and lifestyle	• Describe ways technology can affect healthy sleep and can describe some of the issues • Give examples of some strategies, tips or advice to promote healthy sleep with regards to technology	YouTube	Safer Internet Day P.E. Timetable
	Privacy and security	• Create and use strong and secure passwords. • 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 • Explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and why I should seek permission from a trusted adult before purchasing	iPad Games Social Media Purple Mash	Safer Internet Day
	Copyright and ownership	• Assess and justify when it is acceptable to use the work of others. • Give examples of content that is permitted to be reused.	Search Engine	**All Subjects**