Fritwell Primary School Computing LTP 2020/21

Threshold concepts:
Code: developing an understanding of instructions, logic and sequences.
Connect: developing an understanding of how to safely connect with others.
Communicate: using apps to communicate one's ideas.
Collect: developing an understanding of databases and their uses.

	NC	Term1	Term2	Term 3	Term 4	Term 5	Term 6
Rec	CS	**Unit: Computers around us.** Common devices Computers outside school (Collections of electronic devices on table in classroom). Extension a visit to the school office to view other uses of computers		**Unit: Algorithms** Sequencing events e.g. journey to school Remote control devices I/O plan a route and order instructions example how to get dressed in the morning.		**Unit: Algorithms – Building Blocks** Lego or similar construction type materials building Following instructions to build example - car or house. Make mistakes and debug Following number sequences	**Unit: Bee Bots** Programmable toys: BlueBot I/O Mats e.g. shapes, roads Apps: BlueBot Hardware: IPads Software: App Blue Bot **Unit: Code Safari** Help your animal reach its destination using directional arrows to solve the problem Hardware: IPads Software: App Code Safar1
	DL		**Unit: Mouse and Typing Skills** Children explore the jigsaws and quizzes. These can be topic linked. LO- Children will familiarise themselves with mouse and		**Unit: Paint** (Postman Pat) or 2 Paint Children to create a picture of their choice either using brushes, stamps could be linked to topic		**Unit: Publish** Linked to topic work. Text and picture based LO- to be able to consolidate mouse and keyboard skills Hardware: Laptops

			keyboard through exploration. Hardware: Laptops Website http://www.bbc.co.uk/cbeebies/puzzles/age-and-needs/pre-school#filter http://primarygamesarena.com/Topics/Mouse-Control or Software: 2 Type		LO- to be able to use Mouse / Touch Pad to manipulate objects Hardware: Laptops Website http://www.bbc.co.uk/cbeebies/makes/postman-pat-make-a-picture		Software: 2 Publish
Y1/2 - 20-21	CS		**Unit: Bot Algorithms** Algorithms: Tea-Bot to make tea or coffee. Sandwich-Bot making jam sandwiches Cross curricular: English instructional text		**Unit: Code.org** Course A Self-directed software where children work their way through challenges using direction tiles and repeat functions Hardware: Laptops Software: Web based https://code.org/		**Unit: Scratch Basics** Familiarisation basic blocks, sprite and backdrops. Extension Scratch Jnr Cards 01-09 Hardware: IPads Software: App: Scratch Jnr

	DL	**Unit: Computers Around Us** Give a simple definition of what a computer is. Differentiate between computers and other electrical devices. Children recognise that we are surrounded by computers and that they play an increasingly important role in their world. <u>Hardware:</u> Laptops <u>Software:</u>		**Unit: 2 Paint a Picture** Create a picture. Linked to topic work. Autumn / Fireworks <u>Hardware:</u> Laptops <u>Software:</u> 2 Paint / Tux		**Unit: Creating Ebooks** Create an Ebook with Text, pictures and audio files. This could be based on topic work LO- to be able to add text/pictures/audio to text <u>Hardware:</u> iPads <u>Software:</u> Book Creator	
	E-Safety (Using Common Sense Media resources)	**Unit: Safety and Privacy** (Internet Safety) <u>Going places safely:</u> Children learn that they can go to exciting places online, but they need to follow certain rules to remain safe <u>Hardware</u> Desktops or Laptops <u>Software</u> Search Engines – Kidrex / Safesearch /Google/Safari *Other Cross Curricular Opportunities:* English	**Unit: Safe Searching on the Internet** (Information Literacy) <u>ABC Searching:</u> Children search for pictures online by clicking on letters of the alphabet. They learn that directory sites with alphabetical listings offer one way to find things on the Internet <u>Hardware</u> Desktops or Laptops <u>Software</u> Search Engines – Kidrex / Safesearch /Google/Safari *Other Cross Curricular Opportunities:* English	**Unit – Internet Safety 2020** Free materials which can be downloaded from SID2020	**Unit: Safety and Privacy** (Privacy & Security) <u>Keeping it private:</u> Children learn that many websites ask for information that is private and discuss how to responsibly handle such requests <u>Hardware</u> Desktops or Laptops <u>Software</u> Smartie the penguin & other sites *Other Cross Curricular Opportunities:* English	**Unit: Copy write** (Information Literacy & Creative Credit & Copy write) <u>My Creative Work:</u> Children are introduced to the concept of having ownership over creative work. They practice putting their name and date on something they produce <u>Hardware</u> Desktops or Laptops <u>Software</u> Internet links on lesson plan	**Unit: Communication** (Relationship & communication) <u>Communication:</u> Children explore how they can use email to communicate with real people within their schools, families, and communities <u>Hardware</u> Desktops or Laptops <u>Software</u> Internet links on lesson plan *Other Cross Curricular Opportunities:* English

						Other Cross Curricular Opportunities: English	
Y3 20-21	CS		**Unit: Lightbot Loops** Lightbot Stage 1 Extension moving onto Loops Proc 1 & 2 Hardware: IPads, Software: App: Lightbot		**Unit: Code.org** Course C Self-directed software where children work their way through challenges using direction tiles and repeat functions Hardware: Laptops Software: Web based – https://code.org/		**Unit: Scratch Tutorials** children to build algorithms to gain an understanding of what you can produce in Scratch. Save work in School Account Hardware: Laptops Software: Scratch 3.0 https://scratch.mit.edu/ Account Details User Name-Fritwell3 Password – 3Fritwell
	DL	**Unit: Inside a Computer** Children to understand the basic parts of what makes a computer and the brief history of its origins. Create a PPT or Junk Model of a desktop		**Unit: Photostory** Children create a book based on topic work. Import photos, camera text, sound and shapes. Recap on Laptop skills Hardware: Laptops Software: MS Photostory		**Unit: Pivot Animation** Children create a short animation on a chosen topic for example an Anti-Bullying to coincide with Anti-Bullying week (Nov) Hardware: Desktops Software:	

				Alternative		Pivot	
				Unit: Drawing Learn basic features of a drawing app Hardware: iPad APP - Tayasui Sketches School https://tayasui.com/sketches/tutorials/			
	-Safety (Using Common Sense Media resources)	**Unit: Safety and Privacy On –line behaviour (Privacy & Security)** Powerful Passwords: Children explore reasons why people use passwords, learn the benefits of using passwords, and discover strategies for creating and keeping strong, secure passwords Hardware Desktops or Laptops Software Internet links on lesson plan *Other Cross Curricular Opportunities:* English	**Unit: Communication** (Relationship & Communication) My Online Community: Children explore the concept that people can connect with one another through the Internet. They understand how the ability for people to communicate online can unite a community. Hardware Desktops or Laptops Software Internet links on lesson plan *Other Curricular Opportunities:* English	**Unit – Internet Safety 2020** Free materials which can be downloaded from SID2020	**Unit: Internet Safety** (Information Literacy) Things for Sale: Children examine product websites and understand that the purpose of the site is to encourage buying the product. Children learn methods used to promote products on these sites. Hardware Desktops or Laptops Software Internet links on lesson plan *Cross Curricular Opportunities:* English	**Unit: Behaviour On-Line (Relationships & Communication)** Show Respect Online: Children explore the similarities and differences between in-person and online communications, and then learn how to write clear and respectful messages. Hardware Desktops or Laptops Software Internet links on lesson plan *Other Cross Curricular Opportunities:* English	**Unit: Internet search and Reliable Sources (**Relationships & Communication) Writing Good Emails: Children learn how to communicate effectively by email, taking into account the purpose and audience of their message, and the tone they want to convey. Hardware Desktops or Laptops Software Internet links on lesson plan *Curricular Opportunities:* English

Y4/5 20-21	**CS**	**Unit: Code.org** Course D Self-directed software where children work their way through challenges using direction tiles and repeat functions Hardware: Laptops Software: Web based – https://code.org/ Account Details ictonline@fritwell.oxon.sch.uk User Name -Fritwell P/W-0nl1n3c0d1ng!		**Unit: Scratch Maze** Maze Game, modding, add scoring, obstacles, new levels with different maze. Lesson Plans on- https://portal.turniton.co.uk/guest/4d11d676/resources/10 Hardware: Laptops Software: Scratch 3.0 https://scratch.mit.edu/ Account Details User Name-Fritwell4 Password – 4Fritwell		**Unit: Kodu Racing Game** Basic game making, point scoring, landscapes construction https://portal.turniton.co.uk/guest/4d11d676/resources/23 Hardware: Laptops Software: Kodu	
	DL		**Unit: Word Processing** Select, use and combine a variety of software on a range of digital devices to design a range of programs, systems and content that accomplish specific goals, specifically creating a poster for a purpose *TWINKL alternative –* **Unit: Word Through Art** Hardware: Laptops /iPads Software: WP software		**Unit: Stop Animation** Topic linked: Film, including still photos, sounds Hardware: IPads Software: App Lego / iMotion		**Unit: Music** Create compositions using instruments to build up layers of sound. To reflect various moods Tutorial -Everyone can create music download from iBooks on iPad Hardware: iPads Software: Garage Band

-Safety (Using Common Sense Media resources)	**Unit: Privacy On – line behaviour** (Relationship & Communication / Self Image & Identity) Rings of Responsibility: Children explore what it means to be responsible to and respectful of their offline and online communities as a way to learn how to be good digital citizens Hardware Desktops or Laptops Software Internet links on lesson plan *Other Cross Curricular Opportunities:* English	Unit: Cyberbullying (Internet Safety & Cyberbullying) The Power of Words: Children consider that they may get online messages from other kids that can make them feel angry, hurt, sad, or fearful. Children identify actions that will make them Up standers in the face of cyberbullying . Hardware Desktops or Laptops Software Internet links on lesson plan *Other Cross Curricular Opportunities:* English	**Unit – Internet Safety 2020** Free materials which can be downloaded from SID2020	**Unit: Safety & Privacy (Privacy & Security / Information Literacy)** Private and Personal Information: How can you protect yourself from online identity theft? Children think critically about the information they share online. Hardware Desktops or Laptops Software Internet links on lesson plan *Other Curricular Opportunities:* English	**Unit: Internet search, Reliable Sources** (Information Literacy) The Key to Keywords: Children learn strategies to increase the accuracy of their keyword searches and make inferences about the effectiveness of the strategies. Hardware Desktops or Laptops Software Internet links on lesson plan *Other Cross Curricular Opportunities:* English	**Unit: Internet Safety and Copy Write (Information Literacy & Creative Credit & Copy write)** Whose is it,Anyway? Children learn that copying the work of others and presenting it as one's own is called plagiarism. They also learn about when and how it's ok to use the work of others. Hardware Desktops or Laptops Software Internet links on lesson plan *Cross Curricular Opportunities:* English

Y5/6 20-21	CS		**Unit: Code.org** Course F Self-directed software where children work their way through challenges using direction tiles and repeat functions <u>Hardware:</u> Laptops <u>Software:</u> Web based – https://code.org/		**Unit: Isle of Tune** Music Creation and Algorithms. Extension Design a Step by Step Guide / create a jingle to accompany a new product in the style of the Apprentice <u>Hardware:</u> iPads <u>Software:</u> isle of Tune Website APP $2.99 each Extension **Unit: Swift Playgrounds** Everyone can Code 1. Use iPad book from iBooks for lesson Plans- download to Code 1 <u>Hardware:</u> iPads <u>Software:</u> APP Swift Playgrounds Code 1		**Unit: MIT APP Builder** Build APP's for Android phone and design your own APP <u>Hardware:</u> Laptops <u>Software:</u> MIT APP Builder N.B Google Accounts to be created. Old android phones needed Put a request in school newsletter.
	DL	<mark>**Unit: Teams – Classnote book** Understanding how Microsoft Online platform works. Learn how to access assignments, submit work. Using the Collaboration Space, content library.</mark> **Unit: Social Media** Understanding how social media works and the implications to the user and others			**Unit: Using & Applying** Children research and design the content for a new game using known software, then plan a launch for the game with a website or advert. TWINKL <u>Hardware:</u> Laptops / iPads <u>Software:</u> MS software / Video		**Unit: Digital Yearbook or Movie** Presentation or short video. Children to decide on media to best present their work <u>Hardware:</u> Laptops, IPads <u>Software:</u> App: I Movie / I Motion / Do Ink Green Screen / Garage Band	

		Extension Unit **Unit: Critical Thinking On-line** Understanding how and why we behave on-line. Based around the themes of: Clickbait, Dopamine Hit, On-Line Profile, Fake News & Social Media				
Y5/6 20-21	-Safety (Using Common Sense Media resources)	**Unit: Online Safety** (Relationship & Communication / Internet Safety) Talking Safely Online: Children learn that the Internet is a great place to develop rewarding relationships. But they also learn not to reveal private information to a person they know only online. Hardware Desktops / Laptops Software Internet links on lesson plan *Other Cross Curricular Opportunities:* English	**Unit: Cyberbullying** **(Relationship & Communication / Cyberbullying)** L4- What's Cyberbullying? Children explore how it feels to be cyberbullied, how cyberbullying is similar to or different than in-person bullying and learn strategies for handling cyberbullying when it arises. Hardware Desktops / Laptops Software Internet links on lesson plan *Other Curricular Opportunities:* English Unit: Digital Citizen (Relationship & Communication / Self Image & Identity)	**Unit – Internet Safety 2020** Free materials which can be downloaded from SID2020	**Unit: Online Safety (Privacy & Security)** Privacy Rules: Children learn that children's websites must protect their private information. They learn to identify these secure sites by looking for their privacy policies and privacy seals of approval. Hardware Desktops / Laptops Software Internet links on lesson plan *Other Curricular Opportunities:* English	**Unit: Digital Citizen** (Relationship & Communication / Self Image & Identity) L2- Super Digital Citizen: Children explore Spider-Man's motto, "with great power comes great responsibility" through the lens of digital citizenship. They create comic strips show a digital superhero who witnesses an act of poor digital citizenship, and then helps resolve it. Hardware Desktops / Laptops Software Internet links on lesson plan *Other Cross Curricular Opportunities:* English	**Unit: Creative Copy Write** **(Information Literacy / Self Image & Identity)** Selling Stereotypes: Children explore how the media can play a powerful role in shaping our ideas about girls and boys. They practice identifying messages about gender roles in two online activity zones for children. Hardware Desktops / Laptops Software Internet links on lesson plan *Other Curricular Opportunities:* English