Computing draft long term plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Deer	Information Technology: Word Processing (Part 1) - I can dictate longer passages into a digital device with accurate simple punctuation. - I can confidently type words quickly and correctly on a digital device. - I can make a new line using enter/return. - I can use the space bar only once between words. - I can use caps locks for capital letters.	Digital Literacy: Online Reputation, Privacy and Security - I can recognise that information can stay online and could be copied. - I can describe what information I should not put online without asking a trusted adult first - I can explain how information put online about me can last for a long time. - I know who to talk to if I think someone has made a mistake about putting something online. - I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school) - I can explain how passwords can be used to protect information and devices.	Information Technology: Animation, Video Creation, Photography and Digital Art (Part 1) - I can record a film using the camera app. - I can use tools to add effects to a video - I can begin to use green screen techniques with support. - I can select images and record a voiceover. - I can edit a photo with simple tools - I can use a paint/drawing app to create a digital image - I can begin to cut out an image to layer on another image.	Computer Science: Computational Thinking - I understand what algorithms are - I can write simple algorithms - I understand the sequence of algorithms is important - I can debug simple algorithms - I understand that algorithms are implemented as programs on digital devices - I can write algorithms for everyday tasks - I can use logical reasoning to predict the outcome of algorithms - I understand decomposition is breaking objects/processes down - I can implement simple algorithms on digital devices (Bee Bots, Apps: Daisy the Dino)	Information Technology: Data Handling - I can sort images or text into two or more categories on a digital device. - I can collect data on a topic. - I can create a tally chart and pictogram. - I can record myself explaining what I have done and what it shows me. - I can sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and bar charts using different apps and software. - I can orally record myself explaining what the data shows me. - I can create a branching database using questions.	Digital Literacy; Self image, online relationships and identity - I can recognise that there may be people online who could make me feel sad, embarrassed or upset. - If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust. - I can explain how other people's identity online can be different to their identity in real life. - I can describe ways in which people might make themselves look different online. - I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help. - I can explain why it is important to be considerate and kind to people online.

Owls	Information Technology: Word Processing (Part 2)	Digital Literacy: Managing Online Information	Information Technology: Animation, Video Creation, Photography and Digital Art (Part 2)	Computer Science: Coding and Programming	Information Technology: Presenting	Digital Literacy: Copyright and ownership
	- I can confidently type words quickly and correctly on a digital device. - I can use touch to navigate to words to edit. - I can copy and paste images and text - I can add images alongside text in a word processed document.	- I can use the internet to find things out. - I can use simple keywords in search engines - I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). - I can explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri). - I can explain why some information I find online may not be true.	- I can add filters and stickers to enhance an animation of a character. - I can create an animation to tell a story with more than one scene. - I can add my own pictures to my story animation. - I can create multiple animations of an image and edit these together. - I can create a simple stop motion animation. - I can explain how an animation/flip book works	- I can create a simple program e.g. sequence of instructions for a Bee Bot - I can use sequence in programs I can locate and fix bugs in my program - I understand programs execute by following precise and unambiguous instructions - I can create programs on a variety of digital devices - I can debug programs of increasing complexityc - I can use logical reasoning to predict the outcome of simple programs.	- I can add labels to an image - I can order images to create a simple storyboard. - I can create a simple spider diagram. - I can sequence a series of pictures to explain my understanding of a topic. - I can add voice labels to an image. - I can add a voice recording to a storyboard. - I can add speech bubbles to an image to show what a character thinks. - I can import images to a project from the web and camera roll	- I can explain that work I create using technology belongs to me - I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). - I can save my work so that others know it belongs to me (e.g. filename, name on content). - I can describe why other people's work belongs to them. - I can recognise that content on the internet may belong to other people.

Red Kites Health Wellbeing and Lifestyle woven throughout**:**	Computer Science: Computational Thinking	Information Technology: Animation, Video Creation, Photography and Digital Art (Part 1)	Digital Literacy: Online Reputation, Privacy and Security	Information Technology: Word Processing (Part 1)	Digital Literacy; Self image, online relationships and identity	Information Technology: Data Handling
- I can explain why spending too much time using technology can sometimes have a negative impact on me - I can explain how using technology can distract me from other things I might do or should be doing. - I can identify times or situations when I might need to limit the amount of time I use technology. - I can suggest strategies to help me limit this time.	- I can create algorithms for use when programming - I can decompose tasks (such as animations) into separate steps to create an algorithm - I understand abstraction is focusing on important information - I can identify patterns in an algorithm - I can use repetition in algorithms - I can use abstraction to focus on what's important in my design - I can write increasingly more precise algorithms for use when programming. - I can use simple selection in algorithms - I can use logical reasoning to detect and correct errors in programs	- I can confidently take and manipulate photos - I can create a digital image using a range of tools, pens, brushes and effects - I can enhance digital images and photographs using crop, brightness, contrast & resize - I can manipulate shapes to create digital art. - I can draw a series of images and export as an animated GIF - I can create animations of faces to speak in role with more life-like realistic outcomes. - I can improve stop motion animation clips with techniques like onion skinning. - I can use animation tools in presenting software to create simple animations. - I can take multiple animations of a character I have created and edit them together for a longer video.	- I can recognise I need to be careful before I share anything about myself or others online. - I know who I should ask if I am not sure if I should put something online. - I can describe how others can find out information about me by looking online. - I can explain ways that some of the information about me online could have been created, copied or shared by others. - I understand and can give reasons why passwords are important. - I can describe simple strategies for creating and keeping passwords private. - I can explain what a strong password is. - I can describe strategies for keeping my personal information private, depending on context. - I can explain that others online can pretend to be me or other people, including my friends - I can explain how internet use can be monitored.	- I can use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l. - I can use cut, copy and paste to quickly duplicate and organise text. - I can use font sizes appropriately for audience and purpose. - I can use spell check and thesaurus including through Siri and other AI technology	- I can explain what is meant by the term 'identity'. - I can explain how I can represent myself in different ways online. - I can explain ways in which and why I might change my identity depending on what I am doing online (e.g. gaming; using an avatar; social media). - I can explain how my online identity can be different to the identity I present in 'real life'. Knowing this, I can describe the right decisions about how I interact with others and how others perceive me. - I can give examples of technology-specific forms of communication (e.g. emojis, acronyms, text speak). - I can explain some risks of communicating online with others I don't know well. - I can explain how my and other people's feelings can be hurt by what is said or written online. - I can explain why I should be careful who I trust online and what	- I can create my own sorting diagram and complete a data handling activity with it using images and text. - I can start to input simple data into a spreadsheet. - I can create a feelings chart exploring a story or character's feelings. - I can create my own online multiple choice questionnaire. - I can input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. - I understand how data is collected

					information I can trust them with. I can explain why I can take back my trust in someone or something if I feel nervous, uncomfortable or worried. - I can explain what it means to 'know someone' online and why this might be different from knowing someone in real life. - I can describe strategies for safe and fun experiences in a range of online social environments - I can give examples of how to be respectful to others online.	

Robins Health Wellbeing and Lifestyle woven throughout: - I can explain why spending too much time using technology can sometimes have a negative impact on me - I can explain how using technology can distract me from other things I might do or should be doing. - I can identify times or situations when I might need to limit the amount of time I use technology. - I can suggest strategies to help me limit this time.	**Computer Science:** **Coding and Programming** - I can design and create programs - I can write programs that accomplish specific goals - I can use repetition in programs - I can work with various forms of input - I can use simple selection in programs - I can work with various forms of output - I can use logical reasoning to systematically detect and correct errors in programs - I can work with various forms of output	**Information Technology:** **Animation, Video Creation, Photography and Digital Art (Part 2)** - I can sequence clips of mixed media in a timeline and record a voiceover - I can trim and cut film clips and add titles and transitions - I can independently create a green screen clip. - I can create my own movie trailer. - I can add music and sound effects to my films - I can add animated titles and transitions - I can add simple subtitles to a video clip. - I can use confidently use green screen adding animated backgrounds.	**Digital Literacy:** **Managing Online Information** - I can use key phrases in search engines. - I can explain what autocomplete is and how to choose the best suggestion. - I can explain the difference between a 'belief', an 'opinion' and a 'fact'. - I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. - I understand what criteria have to be met before something is a 'fact'. - I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites). - I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.	**Information Technology:** **Presenting** - I can create an interactive comic with sounds, formatted text and video. - I can create a simple web page. - I can create a simple digital timeline/mindmap - I can create an interactive quiz eBook introducing text, images and sound. - I can create a presentation demonstrating my understanding with a range of media.	**Digital Literacy:** **Copyright and ownership** - I can explain why copying someone else's work from the internet without permission can cause problems. - I can give examples of what those problems might be. - When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. - I can give some simple examples.	**Computer Science:** **Networks** - I understand that computers in a school are connected together in a network - I understand why computers are networked - I understand that servers on the Internet are located across the planet - I understand how email is sent across the Internet - I understand how the Internet enables us to collaborate **Information Technology:** **Word Processing (Part 2)** - I can use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l - I can edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. - I can confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text

Foxes	Digital Literacy: Online Reputation, Privacy and Security	Computer Science: Networks	Information Technology: Word Processing	Digital Literacy: Copyright and ownership	Information Technology: Animation, Video Creation, Photography and Digital Art (Part 1)	Computer Science: Computational Thinking
Health, Wellbeing and Lifestyle woven throughout: - I can describe ways technology can affect healthy sleep and can describe some of the issues. - 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. nightshift mode, regular breaks, correct posture, sleep, diet and exercise). - I can explain the importance of selfregulating my use of technology; I can demonstrate the strategies I use to do this.	- 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. - 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 - 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 use different passwords for a range of online services. - I can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories).	- I understand how we view web pages on the Internet - I use search technologies effectively - I appreciate how pages are ranked in a search engine - I understand what HTML is and recognize HTML tags - I know a range of HTML tags and can remix a web page - I can create a webpage using HTML	- I can start to apply other useful effects to my documents such as hyperlinks. - I can import sounds to accompany and enhance the text in my document. - I can organise and reorganise text on screen to suit a purpose - I can confidently choose the best application to demonstrate my learning. - I can format text to suit a purpose. - I can discuss the audience and purpose of my content.	- 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. I can demonstrate how to make references to and acknowledge sources I have used from the internet -	- I can use cutaway and split screen tools in iMovie. - I can evaluate and improve the best video tools to best explain my understanding. - I can further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool. - I can use picture in picture tools in iMovie. - I can add animated subtitles to my film to further enhance my creation. - I can create videos using a range of media - green screen, animations, film and image.	- I can solve problems by decomposing them into smaller parts - I can use selection in algorithm. - I can recognise the need for conditions in repetition within algorithms - I can use logical reasoning to explain how a variety of algorithms work - I can use logical reasoning to detect and correct errors in algorithms - I can evaluate my work and identify errors - I can recognise, and make use, of patterns across programming projects - I can write precise algorithms for use when programming - I can identify variables needed and their use in selection and repetition - I can decompose code into sections for effective debugging - I can critically evaluate my work and suggest improvements

	- I know what to do if my password is lost or stolen. - I can explain what app permissions are and can give some examples from the technology or services I use. - I can describe simple ways to increase privacy on apps and services that provide privacy settings.				

Badgers Health Wellbeing and Lifestyle woven throughout: - I can describe ways technology can affect healthy sleep and can describe some of the issues. - 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. nightshift mode, regular breaks, correct posture, sleep, diet and exercise). - I can explain the importance of selfregulating my use of technology; - I can demonstrate the strategies I use to do this.	Digital Literacy: Managing Online Information - I can use search technologies effectively - I can explain how search engines work and how results are selected and ranked. - I can demonstrate the strategies I would apply to be discerning in evaluating digital content. - I can describe how some online information can be opinion and can offer examples. - I can explain how and why some people may present 'opinions' as 'facts'. - I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting'). - I can demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important. - I can identify, flag and report inappropriate content	Information Technology: Presenting - I can collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 - I can create and export an interactive presentation including a variety of media, animations, transitions and other effects. - I can create a webpage and embed media. - I can choose applications to communicate to a specific audience. - I can evaluate my own content and consider ways to improve.	Information Technology: Data Handling - I can create and publish my own online questionnaire/quiz and analyse the results. - I can use simple formulae to solve calculations including =sum and other statistical functions - I can edit and format difference cells in a spreadsheet. - I can write spreadsheet formula to solve more challenging maths problems.	Digital Literacy; Self image, online relationships 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. - I can describe ways in which media can shape ideas. - I can challenge and explain why it is important to reject inappropriate messages online. - 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 explain why I should keep asking until I get the help I need. - 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 show I understand my responsibilities for the well-being of	Information Technology: Animation, Video Creation, Photography and Digital Art (Part 2) - I can make a digital photo using camera settings - I can enhance digital photos and images using crop, brightness andresize tools - I can link and explain how to photoshop images and how this is used in the media - I can edit a picture to remove items, add backgrounds and merge 2 photos - I can evaluate and discuss images explaining effects and filters that have been used to enhance the media.	Computer Science: Coding and Programming - I can create programs by decomposing them into smaller parts - I can use selection in programs - I can use conditions in repetition commands - I can work with variables - I can create programs that control or simulate physical systems - I can evaluate my work and identify errors - I can use a range of sequence, selection and repetition commands combined with variables as required to implement my design - I can create procedures to hide complexity in programs - I can identify and write generic code for use across multiple projects - I can critically evaluate my work and suggest improvements

				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 explain how to block abusive users. - I can explain how I would report online bullying on the apps and platforms that I use.		