Computing Long Term Overview 25-26

	Autumn	Spring	Summer
LFS	Everyday technology Children are given the opportunity to explore technology in play, i.e. phones, cameras in real life imitation Anti-Bullying week	Games Children explore games/software, learning navigating skills. Internet Safety Day	Programming toys Children learn about that buttons, flaps, pulleys make things happen.
UFS 1-year cycle	Programming 1 – All about instructions The children learn to receive and give instructions and understand the importance of precise instructions Anti-Bullying week	Computers and Networks – exploring hardware Tinkering and exploring with different computer hardware and learning to operate a camera Programming 2 – Bee Bots Children learn about directions, experiment with programming a Bee-bot/Blue-bot and tinker with hardware Internet Safety Day	Networks and Systems – using a computer Learning about the main parts of a computer and how to use the keyboard and mouse. Logging in and out Data Handling – Introduction to Data Children sort and categorise data and are introduced to branching databases and pictograms
Year 1 1 year cycle	Technology around us – TC Learning all about technology, parts of a computer, mouse and keyboard skills as well as using them safely. Programming 1: Algorithms unplugged This unplugged unit requires no computers so that algorithms, decomposition and debugging are made relatable to familiar contexts, such as dressing up and making a sandwich, while learning why instructions need to be very specific OS: Anti-bullying week	Programming 2: Bee-Bot Developing early programming using either the Bee:Bot or virtual Bee:Bot. OS: internet safety day Digital painting – TC Using computers to draw lines and shapes, thinking about the best tools to copy artistic teachniques.	Creating media: Digital imagery Using creativity and imagination to plan a miniature adventure story and capture it using developing photography skills. Learn to enhance photos using a range of editing tools as well as searching for and adding other images to a project, resulting in a high-quality photo collage showcase. Options for both Google and Microsoft schools. Data handling: Introduction to data Learn what data is and the different ways that it can be represented and developing an understanding of why data is useful, how it can be used and ways in which it can be gathered and recorded both by humans and computers

Year 2 1 year cycle	Information technology around us – TC Looking at technology in school and beyond and what purpose it has. Then extending to the wider world and the benefits in brings, including different ways we can use it. Programming 1: Algorithms and debugging This combination of unplugged and plugged-in activities develop an understanding of; what algorithms are, how to program them and how they can be developed to be more efficient, introduction of loops OS: Anti-bullying week	Programming 2: ScratchJr Explore what 'blocks' do, using the app 'ScratchJr,' by carrying out an informative cycle of predict > test > review, programme a familiar story and an animation of an animal, make their own musical instrument by creating buttons and recording sounds and follow an algorithm to record a joke OS internet safety day Digital writing – TC Exploring use of the keyboard with a purpose, adding, removing and changing text. Thinking about the choices we make between paper and computer.	Creating media: Stop motion Storyboarding and simple animation creation using either tablet devices or devices with cameras Data and information – pictograms – TC Counting, comparing and entering data, using pictograms and comparing attributes.
LKS2 Cycle A	Computing systems and networks: Emailing Learning how to send emails with attachments and how to be a responsible digital citizen by thinking about the contents of what is sent. Options for both Google and Microsoft schools. Computing systems and networks: Networks and the internet Introduction to the concept of networks, learning how devices communicate. Identifying components, learning how information is shared and exploring examples of real-world networks. Options for both Google and Microsoft schools	Data handling: Comparison cards databases Using the theme of a 'Comparison cards game' (based on the popular game, Top Trumps), to understand what a database is by learning the meanings of records, fields and data. Further exploration will lead to the development of the ideas of sorting and filtering. Options for Google and Microsoft schools. OS: Internet safety day Programming: Scratch Building on the use of the 'ScratchJr' application in Year 2, progress to using the more advanced computer-based application called 'Scratch', learning to use repetition or	Programming 1: Further coding with Scratch Using variables in coding. Options for both Google and Microsoft schools Programming 2: Computational thinking Plugged and unplugged activities to develop the four areas of computational thinking

	OS: Anti bullying week	'loops' and building upon skills to program; an animation, a story and a game	
LKS2 Cycle B	Computer systems and networks – Internet –TC Exploring how networks are connected, how websites are used for sharing and story data. Looking at owning website and how much they are believable. Data and information – data logging – TC Exploring data collections, logging, analysing data for answers and using data to answer our own questions OS: Anti bullying week	Creating media: Website design Children develop their research, word processing, and collaborative working skills whilst learning how web pages and web sites are created, exploring how to change layouts, embed images and videos and link between pages. This unit has options for both Google and Microsoft-based devices but there is also the option for a Canva based approach OS: Safer internet day Skills showcase: Html Editing the HTML and CSS of a web page to change the layout of a website and the text and image	Creating media: Video trailers Developing filming and editing video skills through the storyboarding and creation of book trailers. Computing systems and networks: Collaborative learning Working collaboratively in a responsible and considerate way as well as looking at a range of collaborative tools. Lesson plans for both Google schools and Microsoft schools. Also the option of collaboration using Canva.
UKS2 Cycle A	Computing systems and networks: Search engines Using keywords and phrases, identifying inaccurate information, learning page rank works as well. These lessons are available for both Microsoft and Google schools. Programming 2: Micro:bit The meaning and purpose of programming OS: Anti-bulling week	Programming: Intro to Python Using the programming language of Python OS: Safer internet day Creating media: Stop motion animation Storyboarding ideas, taking photographs and editing to create a video animation	Flat File databases – TC Exploring databases on paper and on computer, using these databases to search and compare data and how this can be used in real life. Skills showcase: Inventing a product Designing a product, pupils: evaluate, adapt and debug code to make it suitable and efficient for their needs; use a software program to design their products; create their own websites and video adverts to promote their inventions. Lesson options for schools using both Google and Microsoft software

UKS2 Cycle B	Introduction to spreadsheets – TC Exploring spreadsheets by collecting data, formatting, making formulas to calculate and eventually plan and present an event. Web Creation –TC Looking at what makes a good website, layout, copyright and multilinks. Creating their own website, canva can also be used. OS: Anti bullying week	Programming 1: Music Applying programming skills to create sounds and melodies leading to a battle of the bands performance Variables in games –TC Introduction to variables, how to improve, design and code games. OS: Safer internet day	Data handling: Mars Rover 1 Data transfer and binary code Skills showcase: Mars Rover 2 3D design skills