

	Computing Long Term Plan					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Staying Safe Online Children will begin to talk about ways they can take care when using technology.					
Year 1	Programming A This unit introduces learners to early programming concepts. Learners will explore using individual commands. They will identify what each floor robot and onscreen sprite command does and use that knowledge to start predicting the outcome of programs. Students will learn to program using commands like loops and events. (Code Studio Course A)	Digital Art Children will explore the world of digital art using a range of creative tools. They will create their own paintings, while getting inspiration from a range of other artists.	Programming B Children will continue to explore programming using individual commands. They will identify what a command does and use that knowledge to predict the outcome of programs. Students will learn to program using commands like loops and events. (Code Studio Course A) They will extend their skills by applying their knowledge in other apps e.g. Scratch Jr. They will explore the way a project looks by investigating sprites and backgrounds and will use programming blocks to use, modify, and create program	Data and Information This unit introduces pupils to data and information. They will begin by using labels to put objects into groups, and labelling these groups. They will demonstrate their ability to sort objects into different groups, based on the properties they choose. Finally, children will use their ability to sort objects into different groups to answer questions about data.	Physical Computing Pupils will identify what each floor robot command does and use that knowledge to start predicting the outcome of programs. Technology Around Us Develop pupils' understanding of technology and how it can help them. They will become more familiar with the different components of a computer by developing their keyboard and mouse skills, and also start to consider how to use technology responsibly.	Digital Writing Pupils will develop understanding of the various aspects of using a computer to create and change text. They will familiarise themselves with typing on a keyboard and begin using tools to change the look of their writing, and then they will consider the differences between using a computer and writing on paper to create text.
	Smartie the Penguin (Y1) What online experiences do the class already have? EfCW - Online Relationships - Managing Online Information	Jessie and Friends: Watching Videos EfCW - Managing online information - Self Image and Identity	Hanni and the magic window EfCW - Online Relationships - Managing Online Information	Common Sense Media Media Balance Is Important EfCW - Managing online information - Self-image and identity - Online Bullying - Health, well-being and lifestyle	Common Sense Media Safety in My Online Neighbourhood EfCW - Managing online information - Privacy and Security	Common Sense Media Pause for People EfCW - Health, well being and lifestyle - Self Image and Identity
Year 2	Digital photography Children will learn to recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. Finally, they will use this knowledge to recognise that images they see may not be real.	Programming A Children will develop their skills with the basics of programming, collaboration techniques, investigation and critical thinking skills, understanding of instructions in sequences and the use of logical reasoning to predict outcomes. Learners will use given commands in different orders to investigate how the order affects the outcome. (Code Studio Course B)	Pictograms This unit introduces children to the term 'data'. They will begin to understand what data means and how this can be collected in the form of a tally chart. They will learn the term 'attribute' and use this to help them organise data. They will then progress onto presenting data in the form of pictograms and finally block diagrams.	Programming B Children will further develop their understanding of instructions in sequences and the use of logical reasoning to predict outcomes. They will use given commands in different orders to investigate how the order affects the outcome. (Code Studio Course B) They will apply their skills in different programming contexts e.g using Scratch Jr. Children will recognise that sequences of commands have an outcome and make predictions based on their learning.	Digital Music Children will explore how music can make them think and feel. They will make patterns and use those patterns to make music with both percussion instruments and digital tools. They will also create different rhythms and tunes, using the movement of animals for inspiration. Learners will share their creations and compare creating music digitally and non-digitally.	UPhysical Computing Pupils will use given commands in different orders to investigate how the order affects the outcome. They will also learn about design in programming. IT Around us With an initial focus on IT in the home, learners explore how IT benefits society in places such as shops, libraries, and hospitals. Whilst discussing the responsible use of technology, and how to make smart choices when using it.
	Smartie the Penguin (Y2)	Jessie and Friends: Sharing	Jessie and Friends: Playing	Common Sense Media	Common Sense Media	Common Sense Media

	EfCW - Online Relationships - Managing Online Information	EfCW Images - Online reputation - Privacy and security - Copyright and Ownership - Managing Online Information	EfCW Games - Online relationships - Health, wellbeing and lifestyle - Privacy and security - Self Image and Identity - Online Bullying	EfCW How technology makes you feel? Health, wellbeing and lifestyle	EfCW Internet Traffic Lights Health, wellbeing and lifestyle	EfCW Pause and Think Online - Online relationships - Health, wellbeing and lifestyle
Year 3	Programming A Children will create programs with sequencing, loops, and events. They will investigate problem-solving techniques. They will be introduced to a selection of motion and event blocks which they will use to create their own programs, featuring sequences. (Code Studio Course C)	Stop Motion Children will use a range of techniques to create a stop-frame animation. They will apply their skills to create a story-based animation. This unit will conclude with children adding other types of media to their animation, such as music and text.	Programming B Children will continue to create programs with sequencing, loops, and events. They will use a wider selection of motion and event blocks to create their own programs, featuring sequences. (Code Studio Course C) They will apply their skills in wider contexts and explore the links between events and actions, whilst consolidating prior learning relating to sequencing.	Branching Databases Children will develop their understanding of what a branching database is and how to create one. They will use yes/no questions to gain an understanding of what attributes are and how to use them to sort groups of objects. They will create physical and on-screen branching databases. They will also consider real-world applications for branching databases.	Physical Computing Connecting Computers Pupils will develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs.	Desktop Publishing Children will become familiar with the terms 'text' and 'images' and understand that they can be used to communicate messages. They will use desktop publishing software and consider careful choices of font size, colour and type to edit and improve pre-made documents.
	EfCW Common Sense Media That's Private! Privacy and security	EfCW Common Sense Media Let's give credit Copyright and ownership	EfCW Common Sense Media Device-Free Moments Health, wellbeing and lifestyle	EfCW Common Sense Media Digital Trails - Privacy and security - Online reputation - Managing information online	EfCW Common Sense Media Putting a STOP to Online Meanness - Self-image and identity - Online relationships - Online reputation - Online bullying	EfCW Common Sense Media Who Is in Your Online Community? - Self-image and identity - Online relationships - Online reputation - Online bullying
Year 4	Audio production Children will identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally. Children will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to record audio themselves, they will use Audacity to produce a podcast, which will include editing their work, adding multiple tracks, and opening and saving the audio files. Finally, children will evaluate their work and give feedback to their peers.	Programming A Children will review programming concepts including loops and events. They will develop their understanding of algorithms, nested loops, while loops and conditionals. (Code Studio Course D)	Photo Editing Children will develop their understanding of how digital images can be changed and edited, and how they can then be resaved and reused. They will consider the impact that editing images can have, and evaluate the effectiveness of their choices.	Programming B Children will develop their understanding of algorithms, nested loops, while loops and conditionals. (Code Studio Course D) They will apply their skills in different applications e.g. Scratch, and will look at the difference between count-controlled and infinite loops	Datalogging Pupils will consider the senses that humans use to experience the environment and how computers can use special input devices called sensors to monitor the environment. Pupils will collect data as well as access data captured over long periods of time.	Physical Computing The Internet Pupils will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create.
	EfCW Common Sense Media Rings of Responsibility Online relationships	EfCW Common Sense Media This is me - Online - Online relationships - Self-image and identity	EfCW Common Sense Media Is Seeing Believing? Self-image and identity	EfCW Common Sense Media The Power of Words - Online relationships - Online bullying	EfCW Common Sense Media Password powerup Privacy and security	EfCW Common Sense Media Digital Pledge - Online relationships - Self-image and identity

		Online Reputation	- Health, well being and lifestyle - Copyright and Ownership				
Year 5	Programming A Children will learn to engage in more complex coding. They will learn about nested loops and begin to look at functions and conditionals. (Code Studio Course E)	Video Creation Children will have the opportunity to learn how to create short videos.They will be exposed to topic-based language and develop the skills of capturing, editing, and manipulating video. Children will be supported to take their ideas from conception to completion, and will share their work and ideas with others.	Programming B Children will develop their knowledge of nested loops and begin to look at functions and conditionals. (Code Studio Course E) In Scratch they will revisit how conditions can be used in programs and how the If... Then... Else structure can be used to select different outcomes depending on whether a condition is true or false.	Databases This unit looks at how a flat-file database can be used to organise data in records. Children will use tools within a database to order and answer questions about the data. They will create graphs and charts from their data to help solve problems. They will then use a real-life database to answer a question, and present their work to others.	Physical Computing Children will use physical computing to explore the concept of selection in programming. Systems & Searches Pupils will develop their understanding of computer systems and how information is transferred between systems and devices. They will explain the input, output, and process aspects of a variety of different real-world systems.	Vector Graphics Pupils start to create vector drawings. They learn how to use different drawing tools to help them create images. Learners layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work.	
	Common Sense Media Private and Personal Information EfCW - Managing online information - Privacy and Security	Common Sense Media Creator's rights and responsibilities EfCW - Self-image and identity - Health, wellbeing and lifestyle - Copyright and Ownership	Common Sense Media Digital Citizenship EfCW - Online relationships - Health, wellbeing and lifestyle - Online Bullying	Common Sense Media Online tracks EfCW - Online reputations - Managing online information - Health, wellbeing and lifestyle	Common Sense Media Media Choices EfCW - Self-image and identity - Health, wellbeing and lifestyle	Common Sense Media Keeping Games Fun and Friendly EfCW - Online relationships - Health, wellbeing and lifestyle - Online Bullying	
Year 6	Web page creation Children will be introduced to creating websites for a chosen purpose. They will identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process, children pay specific attention to copyright and fair use of media, the aesthetics of the site, and navigation paths.	Programming A Children will learn to make a variety of Sprite Lab apps that offer choices for the user. They will be introduced to the concept of variables. (Code Studio Course F)	Online Safety Common Sense Media Digital Friendships EfCW Self-image and identity Online relationships Online bullying Online reputation	Programming B Children will be introduced to the concept of variables. (Code Studio Course F) They will then apply their skills in a different environment using physical devices. Children will test ideas within the new programming environment, before transferring it to their micro:bit.	Spreadsheets Children will be supported in organising data into columns and rows to create their own data set. They will be taught the importance of formatting data to support calculations, while also being introduced to formulas and will begin to understand how they can be used to produce calculated data. Children will be taught how to apply formulas that include a range of cells, and apply formulas to multiple cells by duplicating them. They will use spreadsheets to plan an event and answer questions, create	Physical Pupils will have the opportunity to use all their coding skills in a different environment, while also utilising a physical device — the micro:bit. They will create programs to tes, before transferring it to their micro:bit. Computing Communication & Collaboration Children will look at how the internet facilitates online communication and collaboration; they complete shared projects online and evaluate different methods of communication.	3D Modelling Pupils will develop their knowledge and understanding of using a computer to produce 3D models. They will initially familiarise themselves with working in a 3D space, moving, resizing, and duplicating objects. They will then create hollow objects using placeholders and combine multiple objects

					charts, and evaluate their results.		
	Common Sense Media You Wont Believe this! EfCW - Health, wellbeing and lifestyle - Managing online information - Privacy and Security	Common Sense Media Reading the news EfCW - Managing online information - Health, wellbeing and lifestyle - Privacy and Security - Copyright and Ownership	Common Sense Media Digital Friendships EfCW - Self-image and identity - Online relationships - Online bullying - Online reputation	Common Sense Media Is it Cyberbullying? EfCW Online bullying	Common Sense Media Beyond gender stereotypes EfCW - Self-image and identity - Online relationships	Common Sense Media Media balance EfCW Health, wellbeing and lifestyle	