Computing Overview Years 1 – 6 2025-26

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	**We are painters** The children explore the features of 2 paint a picture to help to create a self-portrait and then help them to create illustrations for stories. Expectations • Use the web safely to find ideas for an illustration. • Select and use appropriate painting tools to create and change images on the computer. • Understand how this use of ICT differs from using paint and paper. • Create an illustration for a particular purpose. • Know how to save, retrieve and change their work. • Reflect on their work and act on feedback received.	**We are celebrating** The children will have the opportunity to create a digital greetings card, which could be used for a religious festival such as Diwali or Christmas, pupils' birthdays, or simply to say thank you or good luck. Expectations • Develop basic keyboard skills, through typing and formatting text. • Develop basic mouse skills. • Use the web to find and select images. • Develop skills in storing and retrieving files. • Develop skills in combining text and images. • Discuss their work and think about whether it could be improved.	**We are treasure hunters** The children will program a toy to move around a map to find buried treasure. They will start by thinking of algorithms for their routes, then input these as stored programs for the robot. They predict how the robot will move and will debug their programs. Expectations • Understand that a programmable toy can be controlled by inputting a sequence of instructions. • Develop and record sequences of instructions as an algorithm. • Program the toy to follow their algorithm. • Debug their programs. • Predict how their programs will work.		**We are collectors** The children will use web search engines to collect pictures of different types of animals or plants and then explore ways in which those pictures can be organised. Expectations • Find and use pictures on the web. • Know what to do if they encounter pictures that cause concern. • Group images on the basis of a binary (yes/no) question. • Organise images into more than two groups according to clear rules. • Sort (order) images according to some criteria. • Ask and answer binary (yes/no) questions about their images.	**We are storytellers** The children create a talking book that they can share with others. Expectations • Use sound recording equipment to record sounds. • Develop skills in saving and storing sounds on the computer. • Develop collaboration skills as they work together in a group. • Understand how a talking book differs from a paper-based book. • Talk about and reflect on their use of ICT. • Share recordings with an audience.
Education for a connected world	**Online relationships**	**Self-image and identity**	**Managing online information** **Online reputation**	**Copyright and ownership** **Privacy and security**	**Online bullying**	**Health, well-being and lifestyle**

Year 2	We are Londoners Programming on screen	We are Safe researchers	We are Detectives	WE are zoologists	We are Animators	We are photographers
	The children will build on work from Unit 1.1 – We are treasure hunters to program a sprite to move around the screen. Expectations • Have a clear understanding of algorithms as sequences of instructions. • Convert simple algorithms to programs. • Predict what a simple program will do. • Spot and fix (debug) errors in their programs.	The children research a topic – safely, effectively and efficiently – using a structured approach (mind mapping). They share their findings with others through a short multimedia presentation. Expectations • Develop collaboration skills through working as part of a group. • Develop research skills through searching for information on the internet. • Improve note-taking skills through the use of mind mapping. • Develop presentation skills through creating and delivering a short multimedia presentation.	The children are challenged to solve a mystery by reading, sending and replying to emails, and by listening to a witness statement. They use a fact file sheet to create a table and identify the culprit. Expectations • Understand that email can be used to communicate. • Develop skills in opening, composing and sending emails. • Gain skills in opening and listening to audio files on the computer. • Use appropriate language in emails. • Develop skills in editing and formatting text in emails. • Be aware of online safety issues when using email.	The children go on a bug hunt, recording and identifying the small animals they find. They then organise the data they have collected, record it using a graphing package, and interpret the graph to answer questions about the animals. Expectations • Sort and classify a group of items by answering questions. • Collect data using tick charts or tally charts. • Use simple charting software to produce pictograms and other basic charts. • Take, edit and enhance photographs. • Record information on a digital map.	The Children will work in small groups to plan, film and add audio to a short 'stop-motion' animation. Expectations • Understand how animation works • to use storyboards to plan an animation • to create their own original characters, props and backgrounds for an animation • to film, review and edit a stop-motion animation • to record audio to accompany their animation • to provide constructively critical feedback to their peers	The children review photos online, practise using a digital camera, take photos to fit a given theme, edit their photos, and then select their best images to include in a shared portfolio. Expectations • Consider the technical and artistic merits of photographs. • Use a digital camera or camera app. • Take digital photographs. • Review and reject or rate the images they take. • Edit and enhance their photographs. • Select their best images to include in a shared portfolio.
Education for a connected world	Online relationships	Self-image and identity	Managing online information Online reputation	Copyright and ownership Privacy and security	Online bullying	Health, well-being and lifestyle

Year 3	**We are programmers** The children create an animated cartoon using characters they design. They then create an animation by translating a storyboard into a series of scripted instructions (program) for graphic objects Expectations • Create an algorithm for an animated scene in the form of a storyboard. • Write a program in Scratch to create the animation. • Correct mistakes in their animation programs.	**We are bug fixers** The children work with Scratch projects to explain how the scripts work, finding and correcting errors in them, and explore creative ways of improving them. The children learn to recognise some common types of programming error, and practise solving problems through logical thinking. Expectations • Develop a number of strategies for finding errors in programs. • Build up resilience and strategies for problem solving. • Increase their knowledge and understanding of Scratch. • Recognise a number of common types of bug in software.		**We are who we are** In this unit, pupils create a set of presentations for different audiences and discuss issues of online trust and privacy Expectations . plan the structure of a presentation . create a presentation with a planned structure . add narration to a presentation . distinguish between degrees of trust in sharing content with others.	**We are opinion pollsters** The children create their own opinion poll, seek responses, and then analyse the results. Expectations • Understand some elements of survey design. • Understand some ethical and legal aspects of online data collection. • Use the web to facilitate data collection. • Gain skills in using charts to analyse data. • Gain skills in interpreting results.	**We are presenters** The children will make a short narrated video of themselves practising camera shots and video editing. Expectations • Gain skills in shooting live video, such as framing shots, holding the camera steady, and reviewing. • Edit video, including adding narration and editing clips by setting in/out points. • Understand the qualities of effective video, such as the importance of narrative, consistency, perspective and scene length.
Education for a connected world	**Online relationships**	**Self-image and identity**	**Managing online information** **Online reputation**	**Copyright and ownership** **Privacy and security**	**Online bullying**	**Health, well-being and lifestyle**

Year 4	**We are software developers**	**We are musicians**		**We are Logo Programmers**	**We are co-authors**	**We are Photo editors**
	. **We are software developers** The pupils start by playing and analysing educational computer games, identifying those features that make a game successful. They then plan and design a game, with a clear target audience in mind. They create a working prototype, and then develop it further to add functionality and improve the user interface. They test their game and make any necessary changes. Expectations • Develop an educational computer game using selection and repetition. • Understand and use variables. • Start to debug computer programs. • Recognise the importance of user interface design, including consideration of input and output.	The children produce Music online suitable for any purpose they choose. Expectations • Use one or more programs to edit music. • Create and develop a musical composition, refining their ideas through reflection and discussion. • Develop collaboration skills. • Develop an awareness of how their composition can enhance work in other media.		**We are Logo Programmers** T C sow The children will create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language. Expectations . To identify that accuracy in programming is important .To create a program in a text-based language .To explain what 'repeat' means .To modify a count-controlled loop to produce a given outcome .To decompose a task into small steps .To create a program that uses count-controlled loops to produce a given outcome	The children collaborate to create a 'mini Wikipedia'. They then go on to add or amend content on the real Wikipedia. Expectations •Understand the conventions for collaborative online work, particularly in wikis. • Be aware of their responsibilities when editing other people's work. • Become familiar with Wikipedia, including potential problems associated with its use. • Practise research skills. • Write for a target audience using a wiki tool. • Develop collaboration skills. • Develop proofreading skills.	pupils will develop their understanding of how digital images can be changed and edited, and reused. They will consider the impact that editing images can have, and evaluate the effectiveness of their choices. Expectations -Explain the key requirements of the task -Identify the types of image needed in relation to their chosen theme -Outline how the images will be used together -Suggest colours and effects that might suit their scene -Select images and combine them into one -Use a range of tools to create their image -Add relevant text to their publication -Evaluate how successful they were in meeting the task requirements
Education for a connected world	**Online relationships**	**Self-image and identity**	**Managing online information** **Online reputation**	**Copyright and ownership** **Privacy and security**	**Online bullying**	**Health, well-being and lifestyle**

Year 5	**We are game developers**	**We are bloggers**	**WE are cryptographers**		**We are adventure gamers**	**We are Web developers**
	The pupils plan their own simple computer game. They design characters and backgrounds, and create a working prototype, which they develop further based on feedback they receive. Expectations • Create original artwork and sound for a game. • Design and create a computer program for a computer game, which uses sequence, selection, repetition and variables. • Detect and correct errors in their computer game. • Use iterative development techniques (making and testing a series of small changes) to improve their game.	The children create a media-rich blog, comment on blogs and respond to comments. Expectations • Become familiar with blogs as a medium and a genre of writing. • Create a sequence of blog posts on a theme. • Incorporate additional media. • Comment on the posts of others. • Develop a critical, reflective view of a range of media, including text.	The pupils learn more about communicating information securely through an introduction to cryptography (the science of keeping communication and information secret). They investigate early methods of communicating over distances, learn about two early ciphers, and consider what makes a secure password. Expectations • Be familiar with semaphore and Morse code. • Understand the need for private information to be encrypted. • Encrypt and decrypt messages in simple ciphers. • Appreciate the need to use complex passwords and to keep them secure. • Have some understanding of how encryption works on the web.		In this unit, pupils create an interactive, nonlinear adventure game. They make this as a set of interlinked slides using hyperlinks in presentation software; the player chooses their path. Expectations • create a slide showing an outline plan of their adventure game • add descriptive text to a presentation • add images to a presentation • create a link between slides in a presentation • record audio narration • provide constructive and supportive feedback on others' presentations.	In this unit, the pupils work together to create a website explaining e-safety and responsible online behaviour. Expectations • Develop their research skills to decide what information is appropriate. • Understand some elements of how search engines select and rank results. • Question the plausibility and quality of information. • Develop and refine their ideas and text collaboratively. • Develop their understanding of online safety and responsible use of technology.
Education for a connected world	**Online relationships**	**Self-image and identity**	**Managing online information** **Online reputation**	**Copyright and ownership** **Privacy and security**	**Online bullying**	**Health, well-being and lifestyle**

Year 6	**Sensing Movement**(т С sow)	**We are advertisers y6**		**We are computational Thinkers SOC3**	**We are Spread Sheet users (т С sow)**	**We are publishers Year book SOC 3**
	This unit brings together elements of all the 4 programming constructs: sequence repetition, selection and variables Starting with a simple program for pupils to build in and test within the new programming environment, before transferring it to their micro:bit	The children review existing adverts or promotional films, create a storyboard, shoot original footage, source other media and edit a final version of their movie.		The children participate in some hands-on unplugged activities which help them to develop an understanding of some important algorithms. They also investigate these when implemented as Scratch programs.	The children will be introduced to spreadsheets. They will use spreadsheets to plan an event and answer questions. Finally, learners will create charts, and evaluate their results in comparison to questions asked.	The children produce a class yearbook or school magazine using desktop publishing tools. They source, write, edit and combine images and text from a range of sources.
	Expectations • Identify what will be displayed and how the user will see it • Choose an appropriate name for a variable • Choose when and where to set a variable • Create an algorithm to describe how the program will process each input • Combine appropriate blocks to implement their algorithm • Run their code on the emulator to test their program • Propose a strategy to fix the code if it is not working • Evaluate how successful they were in meeting the task requirements	Expectations • Think critically about how video is used to promote a cause • Storyboard an effective advert for a cause • Work collaboratively to shoot original footage and source additional content • Acknowledge intellectual property rights • Work collaboratively to edit the assembled content to make an effective advert.		Expectations • develop the ability to reason logically about algorithms • understand how some key algorithms can be expressed as programs • understand that some algorithms are more efficient than others for the same problem • understand common algorithms for searching and sorting a list	Expectations -To build a data set in a spreadsheet -To explain that formulas can be used to produce calculated data -To apply formulas to data -To create a spreadsheet to plan an event -To choose suitable ways to present data	Expectations • Manage or contribute to large collaborative projects, facilitated using online tools • Write and review content • Source digital media while demonstrating safe, respectful and responsible use • Design and produce a high-quality print document.
Education for a connected world	**Online relationships**	**Self-image and identity**	**Managing online information** **Online reputation**	**Copyright and ownership** **Privacy and security**	**Online bullying**	**Health, well-being and lifestyle**