Curriculum Progression in **Computing**

	KS1	LKS2	UKS2
Text and Multimedia	Work with others, and with support, to contribute to a digital class resource which includes text, graphic and sound. Generate their own work, (with help where appropriate with multimedia) combining text, graphics and sound. Save, retrieve and edit their work. Y1- We are painters Y1- We are TV chefs Y2-We are researchers (PP about Great Fire of London after research)	Record and present information integrating a range of appropriate media combining text and graphics in printable form and sound and video for on-screen presentations, which include hyperlinks. Begin to show an awareness of the intended audience and seek feed-back. Y3- We are presenters	Multimedia work shows restrained use of effects that help to convey meaning rather than impress. Use advanced tools in word processing / DTP software such as tabs, appropriate text formatting, line spacing etc appropriately to create quality presentations appropriate for a known audience. Y6- Spies PowerPoint
Digital Images (photos, paint, animation)	Use a range of simple tools in a paint package or image manipulation software to create/modify a picture to communicate an idea. Create a simple animation to tell a story. Y1- We are story tellers Y2- Paint (silhouette scene) Y2- We are photographers	Manipulate digital images using a range of tools in appropriate software to convey a specific mood or idea. Make a short film or animation from images (still and/or moving) that they have sourced, captured or created. Y3- We are presenters	Use images that they have sourced, captured or manipulated as part of a bigger project (e.g. presentation or document). Y6- Spies PowerPoint
Sound and music (inc sound recorders)	Chose suitable sounds from a bank to express their ideas. Record short speech. Compose music from icons. Produce a simple presentation incorporating sounds the children have captured or created. Y1- We are story tellers Y1- We are TV chefs Y2-We are researchers (PP about Great Fire of London after research)	Create a simple podcast, selecting and importing already existing music and sound effects as well as recording their own. Create multiple track compositions that contain a variety of sounds. Y3 Victorian Podcast Y4- We are musicians	Create and share more sophisticated podcasts and consider the effect that their podcasts will have on the audience. Y6- World war Podcast
Electronic Communication		Begin to understand the need to abide by school e-safety rules. All lessons.	Abide by school rules for e-safety. Share ICT work they have done electronically by email or uploading to authorised sites. Where possible, seek and respond to feedback. All lessons.

Research and E Safety	As a class, children explore information from a variety of sources (electronic, paper based, observations of the world around them, etc.). Show an awareness of different forms of information. Use a search engine to find specific relevant information to use in a presentation for a topic. Save and retrieve their work. Y1 We are collectors Y2-We are researchers (PP about Great Fire of London after research) Y2- We are photographers	Ask their own questions then use ICT sources to find answers, making use of search engines, an index, menu, hyperlinks as appropriate. Talk about using ICT to find information or resources, noting any frustrations and showing an emerging understanding of internet safety. Make use of copy and paste, beginning to understand the purpose of copyright regulations. Show an understanding that not all information on the internet is accurate. Y3- we are presenters Y4 website design	Independently, and with due regard for safety, search the internet using a variety of techniques to find a range of information and resources on a specific topic. Use appropriate methods to validate information and check for bias and accuracy. Develop a growing awareness of how to stay safe when using the internet (in school and at home) and that they abide by the school's internet safety policy. Y6 – Spies/ world war
Control (algorithms)	Control a device, on and off screen, making predictions about the effect their programming will have. Y1- We are treasure hunters- Beebots	Engage in problem-solving activities that require them to write procedures etc. and to predict, test and modify. Use control software to control devices (using output commands) or to simulate this on screen. Predict, test and refine their programming Y3- We are programmers Y3 We are bug fixers Y4- We are software developers	Independently create sequences of commands to control devices in response to sensing (i.e. use inputs as well as outputs). Design, build, test, evaluate and modify the system; ensuring that it is fit for purpose. Y5 We are game developers Y5 we are cryptographers
Handling information (databases and graphs)	As a class or individually with support, children use a simple pictogram or painting program to develop simple graphical awareness and one to one correspondence. Use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions. Enter information into a simple branching database, database or word processor and use it to answer questions. Save, retrieve and edit their work. Y1 We are collectors Y2- graphs- mini-beast hunt Science link	Use a simple database (the structure of which has been set up for them) to enter, save and interrogate information on a given subject (by searching, sorting, graphing etc). Work as a class or group to create a data collection sheet and use it to setup a straightforward database to answer questions. Begin to reflect on how useful the collected data and their interrogation was and whether or not their questions were answered. Y4 We are meteorologists	Independently solve a problem by planning and carrying out data collection, by organising and analysing data involving complex searches using a database, and by drawing conclusions and presenting findings. Understand the need for accuracy and list strategies for spotting implausible data. Be able to talk about issues relating to data protection and the need for data security in the world at large (eg health, police databases). Y6- data logging Heart/pulse
Modelling and simulations (spreadsheets, adventure games and simulations)	Make simple choices to control a simple simulation program. Be able to play an adventure game and use a simple simulation, making choices and observing the results. Understand that computers are good at replicating real life events and allowing them to explore contexts that are otherwise not possible. Y2 We are astronauts	Use models and simulations to find things out and solve problems. Recognise that simulations are useful in widening experience beyond the classroom. Make simple use of a spreadsheet to store data and produce graphs. Set up and use a spreadsheet model to explore patterns and relationships. Make predictions. Know how to enter simple formulae to assist this process. Y3- We are programmers Y3 We are bug fixers	Set up and use their own spreadsheet, which contains formulae to investigate mathematical models. Ask "what if …" questions and change variable in their model. Understand the need for accuracy when creating formulae and check regularly for mistakes, by questioning results. Relate their use of spreadsheets to model situations to the wider world. Y5- 2DIY3d game Y5- we are game developers

		Y4- We are meteorologists Y4- We are software developers	
Data logging (science and maths)		Begin to use a data logger to sense physical data (sound, light, temperature). Interpret the results and use these in their investigations. Realise the advantages of using ICT to collect data that might otherwise be problematic. Y3/4 data logging sound/ light	Identify their own opportunities for data logging and carry out their own experiments. Check and question results and are able to spot trends in data and identify when problems may have occurred. Use a data logger confidently, connected to the computer or remotely, to capture continuous or intermittent data readings. Y6- Data logging heart rate
Understanding Technologies (individual technologies)	Show an awareness of a range of inputs to a computer (IWB, mouse touch screen, microphone, keyboard, etc). Y1/Y2: All lessons	Make choices about the devices and tools they use for specific purposes and explain them in relation to the context. Begin to show an awareness of specific tools used in working life. Y3- we are presenters Y3- Victorian Podcast Y4- We are meteorologists	Evaluate the tools available to them including any that are unfamiliar or new and use them to solve problems. Demonstrate an awareness of the appropriateness of outcomes depending on choices regarding tools and devices. Y6- World war Podcasts Y5- blogging Y5- App marketing
Understanding Technologies (networks)	Show an awareness that what they create on a computer or tablet device can be shown to others via another device (e.g. printer, projector, Apple TV). Begin to show an awareness that computers can be linked to share resources. Y1- We are TV chefs Y2-We are researchers (PP about Great Fire of London after research) Y2- We are detectives	Show an understanding that their password is the key to accessing a personalised set of resources and files (e.g. My Documents). Show an awareness of where passwords are critical in everyday use (e.g. parents accessing bank details). All Y3/Y4	Show an understanding of how filtering and monitoring tools affect their use of the school network and Internet and compare this with their experience of access outside school. Show an understanding of the school network and how it links computers to resources in school and beyond. Compare this with other networks they may encounter at home or in the wider world (e.g. banks). All Y5/6

Understanding Technologies (the internet)	Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward button, hyperlinks). Y2-We are researchers (PP about Great Fire of London after research) Y2 We are detectives	Show an awareness that not all the resources/tools they use are resident on the device they are using. Begin to show an understanding of URLs. Show an awareness of the need for accuracy in spelling and syntax to search effectively. Y3- We are presenters Y4- website	Use collaborative tools and e-mail showing a sensitivity for this type of remote collaboration and communication. Perform a search using different search engines and check the results against each other, explaining why they might be different. Y6 spies Y6 podcasts Y5- blogging