Progression in Computing							
Teaching Sequence in Computing:	Look at and recap previous knowledge/skills that a relevant to the new learning						
	Provide realistic and relevant information.						
	Specify key vocabulary to be used and its meaning.						
	Provide opportunities for the children to work interactively with the teacher acting as the facilitator.						
	Ongoing opportunities to apply learned skills and knowledge across the curriculum.						
Strand	**EYFS**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Safe and Responsible Use/Online Safety	Understand not to talk to strangers. Understand that they must only use a computer/device with an adult's permission.	To login safely with their own logins and understand why that is important. To create their own avatar and to understand what this is and how it is used. To be able to create their own picture and add their name to it. To start to understand the idea of 'ownership' of their creative work. To save their work to their My Work area and understand that this is their space.	To refine searches using the search tool To share work electronically using PM display boards. To acquire some knowledge and understanding about sharing work on the Internet. To use 2Email to write to characters and understand how we talk to others appropriately when they aren't there in front of us.	To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away. To understand how the Internet can be used to help us to communicate effectively. To understand how a blog can be used to help us communicate with a wider audience. To consider whether what they read on websites is true and how to asses whether information is likely to be accurate. To learn about the meaning of age restrictions symbols on digital media and	To understand how people can protect themselves from online identity theft. To know that information put online leaves a digital footprint or trail and that this can aid identity theft. To identify the risks and benefits of installing software including apps To understand that copying the work of others and presenting it as their own is called 'plagiarism' and consider the consequences of plagiarism. To identify appropriate behaviour when participating or contributing to collaborative online projects for learning.	To gain a greater understanding of the impact that sharing digital content can have. To review sources of support when using technology and their own responsibility to one another in their online behaviour. To understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. To be made aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.	To assess the benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location. To Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon. To identify the benefits and risks of giving personal information and device access to different software. To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user.

Strand	EYFS	Year1	Year 2	Year 3	Year 4	Year 5	Year 6
				devices and discuss why PEGI restrictions exist. To know where to turn for help if they see inappropriate content or have inappropriate contact from others.	To identify the positive and negative influences of technology on health and the environment and understand the importance of balancing game and screen time with other parts of their lives.		To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health.
	stranger permission	Avatar Search Save Personal information Log in/out Notification tools Username password	search engine links email internet sharing attachment display board digital footprint	cyberbullying advertisements password safe email blog concept map website webpage spoof website PEGI rating	Computer virus Cookies Copyright Digital footprint Email Identity theft Malware Phishing Plagiarism spam	Smart rules Reputable Encryption Identity theft Shared images Plagiarism Citations Bibliography reference	Digital footprint PEGI rating Phishing Screen time Spoof website
Strand	EYFS	Year1	Year 2	Year 3	Year 4	Year 5	Year 6

Communication and technologies	children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	**Effective Browser Searching** To consider how technology is used outside of the school environment. To go on a walk around their local community and find and record examples of where technology is used outside school.	**Technology Outside School** To develop and understanding of what the internet is. To look at the Internet, the web, browsers and search engines. To search using google - Pupils will be taught the basics of search: where to type in their query and how to understand the pages of results. The pupils will look at the main pages and buttons they will encounter while using search engines.	**Email** To think about different methods of communication. To open and respond to an email before writing an email to someone using an address book. To know how to use email safely, to add an attachment to an email and to explore a simulated email scenario. **Simulations** To know what a computer simulation is. To explore a simulation and comment on its usefulness. To analyse and evaluate a simulation.	**Effective Search Browser** To locate information on the search results page and use search effectively to find out information. To assess whether an information source is true and reliable.		**Networks** To find out more about how networks work, understand computer networks including the internet To learn how networks can provide multiple services, such as the World Wide Web, and explore the opportunities they offer for communication and collaboration. To consider some of the major changes in technology which have taken place during their lifetime and the lifetime of their teacher/another adult.
Vocabulary		Technology	Internet Search Search engine	Communication Email Compose Send Report to teacher Address book Save to draft Password CC Formatting	Easter egg Internet Internet browser Search Search engine Spoof website website		Internet World Wide Web Network Local Area Network (LAN) Router Network cables Wireless

Digital Literacy Knowledge and Skills	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes	**Animated Stories** To know the difference between an e-book and a traditional book To work with others and contribute to a digital resource that includes text. To change font colour and size. To save work. To create a simple animation to tell a story. To add sound to the page. To create music and add to page. To use a copy and paste feature.	**Creating Pictures** To generate own work, combining text, graphics and sound. To save, retrieve and edit work. To use a range of tools in a paint package to create/ modify a picture to communicate an idea. To use lines/ patterns/ dots on the computer to create a picture in the style of an artist **Making Music** To explore, edit and combine sounds on a computer program. To add sounds to a tune to change it. To record their own sounds. **Presenting Ideas** To explore how a story can be presented in different ways. To use a software program to organise	**Typing** Understand the typing terminology, 'top row', 'home row', 'bottom row' and 'space bar' Use two hands to type letters To type words. To improve speed in typing	Writing for different audiences To investigate how font size and style can affect the impact of a text. To use a simulated scenario to produce a news report To use appropriate font style and sizes and be able to justify choices **Animation** To know how animations are created by hand. To use the Onion Skin tool. To add backgrounds and sounds to animations. To know what stop motion animation is Share animations with the class	**3D Modelling** To explore the effects of moving points when designing a product. To edit 3D models/Design a 3D model for a purpose. **Game Creator** To create the game environment by using the drawing tools or uploading images. To create the game quest by designing characters and editing features	Blogging To identify the purpose of writing a blog. To identify the features of successful blog writing. To plan the theme and content for a blog. To understand how to write a blog. To consider the effect upon the audience of changing the visual properties of the blog. To understand the importance of regularly updating the content of a blog. To understand how to contribute to an existing blog. To understand how and why blog posts are approved by the teacher. To understand the importance of commenting on blogs. To peer-assess blogs against the agreed success criteria.

			and present information. To add clipart/ photos/ tables to structure information.				
Vocabulary		Animation E book Font File Sound effect Display board	Share Template Impressionism Surrealism Pointillism Palette Bpm Composition Digitally Instrument Music Sound effect Soundtrack Tempo Volume Concept map Node Animated Non-fiction Narrative Presentation audience	Posture Top row keys Home row keys Bottom row keys Space bar	Font Bold Italic Underline Centre Animation Flip book Frame Onion skinning Background Play Sound Stop motion Video clip	Animation Computer game Customise Evaluation Image Instruction Interactive Screenshot Texture Perspective Playability CAD (computer aided design) Modelling 3D Viewpoint Polygon 2D Net 3D printing Points template	Audience Blog Blog page Blog post Collaborative Icon
Information Technology	Uses ICT hardware to interact with age-appropriate computer software. Give reasons for why things	**Spreadsheets** To explain what rows and columns are. To open a spreadsheet and enter data into cells.	**Spreadsheets** To use the 'copy and paste totals' tool To use the data in a spreadsheet to create a graph.	**Branching Databases** To use a simple database to enter and save information on a given subject. To use straightforward lines of enquiry to	**Spreadsheets** To use the formula wizard in the advanced mode to add formulae and explore formatting cells.	**Spreadsheets** To create a formula in a spreadsheet to convert m to cm. To create a spreadsheet that converts miles to km and vice versa.	**Spreadsheets** To use a spreadsheet to model a real-life situation. To use a spreadsheet to

	happen and how things work Coordinate actions to use technology e.g. press a button/ call a telephone number	To use the 'lock' tool to prevent changes to cells. To give images a value that the spreadsheet can use to count To use the count tool **Pictograms** To use a simple pictogram to develop graphical awareness/ one to one correspondence. To collect data to use in a pictogram To understand that a picture represents a value (1)		search data for the answers. To create a branching database	To use a spreadsheet for budgeting. To use spreadsheet data to create line graphs.	To use a spreadsheet to work out which letters appear most often. To use the 'how many' tool. To use a spreadsheet to work out the area and perimeter of rectangles. To create simple formulae that use different variables. Create a formula that will work out how many days there are in x number of weeks or years. To use a spreadsheet to plan an event. **Databases** Search a database to find out answers to questions. Add records to their database Know what a database field is and can correctly add field information Understand how to words questions so they can be effectively answered using a search	explore probability. To use a spreadsheet for the conversion of of measurements To use spreadsheet data to create line graphs. To use spreadsheets in 'real life' Creating a computational mode.

Information Technology Vocabulary		Pictogram Data Collate spreadsheets Arrow keys Cursor Backspace Columns rows Cells Clipart Count tool Lock tool Speak tool Move cell tool	Spreadsheet Rows Cells Columns Copy and paste Move cells tool Count tool Lock tool Delete key Image toolbox Equals tool	Data Branching database Database Question	Spreadsheets Columns Cells Average Advanced mode Copy and paste Charts Formula Formula wizard Move cell tool Random tool Timer	Formula Wizard Move cell tool Random tool Rows Spin tool Spreadsheet Charts Sort, group and arrange Statistics and reports Table	Formula Wizard Move cell tool Random tool Rows Spin tool Spreadsheet Charts Sort, group and arrange Statistics and reports Table Dice Count (how many) tool
Computer Science Knowledge and Skills	**EYFS**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
	Completes a simple program on a computer. Click on icons to cause things to happen in a computer program. Children recognise that a range of technology is used in places such as homes and schools. They select and use technology	To build up their vocabulary of coding words and using them in context To create clear instructions like those required by a computer and build one- and two-step instructions using the printable code cards. To create their own simple program. To explore the When Key and	To understand the term algorithm and understand that they are a precise set of instructions and that programs execute by following them (in this case the Bee Bots) will be following algorithms. To use logical reasoning to predict where the Bee Bots will end up by following given algorithms.	To understand what a Physical System is, know examples of Physical systems around us and know that they can be controlled by computers. To name and assemble Crumble Kit components. To use logical reasoning to predict the behaviour of simple programs.	To write their own simple programs to control motors with crumble kits. To debug their own code and solve problems such as how to slow down/speed up the motor. To begin to include the variables	To create a program that responds to the 'if' command or the 'if/else' command To use a variable to create a visual timer. To explore number and string variables. To go through the design, code, execute, refine process. To create a program that controls or simulates a physical system, i.e. changing	To designing and write a more complex program for the crumble kit which accomplishes a specific goal. Explain what functions are and how they can be created and labelled. Use variables to inform components such as switches and sensors.

	for particular purposes.	When Swiped commands (on tablets if available) and use the Stop button to make characters stop.	To create and debug their own simple programs to navigate the Bee Bots to given points on a giant map.	To write their own simple programs to control sparkles To debug programs by detecting and correcting errors in their own algorithms.		the speed and angle of moving objects.	Use appropriate coding vocabulary
Vocabulary		Design mode Input Object Program Properties Scale Stop command Sound When clicked When key	Action Algorithm Bug Character Code block Code design Command Debug/debugging Design mode	Physical system Crumble kit Sparkles Algorithm Debug Program Reasoning Error	Physical system Crumble kit Motors Algorithm Debug Program Variable If/ else simulation	If/else Input Output Object Repeat Sequence Selection Simulation Timer Variable	function Sequence Tabs Sensors Variables If/else