Computing Progression Document

Learning threads (Breadth)	Reception			Year 1		Year 2	Year 3		Year 4	Year 5		Year 6
Year A	Me and my world	journeys	Wider world	What's around us	What's under our feet	What's up	What makes something memorable?	Is it better to stand out or fit in?	It's a kind of magic	Blood, chills and thrills	What a wonderful world	Healthy world
Year B				Wonderful Me	Wonderful World	Wonderful Events	Wonderful World- Blue Planet	Wonderful World – Green Planet Rainforests/Mayans	Rise of the Machines - Inventions and inventors	Space	Survive or Thrive	Who loves chocolate?

To code			
	. Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. (PSED) Explain the reasons for rules. (PSED) Explore how things work. (UtW)	Collaborate with others, investigate different problem-solving techniques, and persist with difficult tasks. Develop computational thinking skills and logical reasoning to predict the behaviour of simple programs through 'unplugged' activities and coding opportunities. Learn that the internet lets us visit different places and how to stay safe online. <u>Y1 (Code.org Course A and Scratch Jnr)</u> Learn to program using commands like sequencing, loops and events. Edit and program characters. Create programs with a sequence of linked instructions. Use programmable robots to support learning. <u>Y2 (Code.org Course B and Turtle Logo/Scratch Jnr)</u> Develop concepts of sequencing, loops and events with more sophisticated	<u>Y3 continue and finish Code.org Course B then begin Course C.</u> <u>Y4 complete Course C</u> Course B: Develop concepts of sequencing, loops and event with more sophisticated activities and a greater variety of puzzles. Develop collaboration, investigation and critical thinking skills and persist with difficult tasks. Course C: Create programs using sequencing loops and event. Translate their initials into binary. Investigate problem-solving techniques and develop strategies for building positive communities both online and off. Create interactive games that can be shared. <u>Y3 Turtle logo and Scratch</u>: create and debug algorithms that draw shapes and patterns. Use move, rotate and repeat commands and use pen-up, pen-down. <u>Y4 Scratch:</u>	<u>Y5 Code.org begin Course D.</u> <u>Y6 complete Course D</u> Review concepts from Y1, 2, 3, 4. Develop understanding of algorithms, events, nested loops, while/until loops and if/else conditionals. <u>Y5 Scratch: Developing Games.</u> Design and program a character game with a specific goal and with original character or backdrop. Add features or effects to enhance game. Add point-scoring and levels to game code. <u>Y6 Scratch: Animated Stories</u>. Structure code and animate characters and scenes, gradually building to create a short animated story with added audio. <u>Y6 additional: Kodu programming.</u> Investigate and evaluate the features of programming software. Analyse and deconstruct code to work out its purpose Use Kodu instructions, features and tools to create a 3D landscape and program a character to follow a path.

		activities and a greater variety of puzzles. Begin to learn about a 'digital footprint'. Create, test and debug algorithms. Give and follow instructions including movement and turns. Begin to apply skills learnt to different programs such as Turtle Logo and Scratch Jnr.	Questions and Quizzes- design, write and debug a program by selecting appropriate visual block commands to create a sequence. Work with variables.	
To connect	Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'. -being safe, asking an adult for help. (PD)	Know to have adult's permission when using and communicating via the internet. Learn what information is OK to be shared on the internet and to keep personal information private. Use child friendly, safe, search engines. Understand the idea of being safe 'stranger danger' and some of the potential risks posed by technology inside and outside of school. Ask an adult for help/if worried. Tell an adult if something pops up when using a device.	(From Internet Legends Scheme of Work) Y3: Learn about digital footprints and zones of privacy within them. Learn about anti-phishing skills and strategies to work out if people online are who they say they are. Practice empathy by using clues in what they see and hear. Think about what they share online and how it makes others feel. Explore the different roles in bullying incidents and learn how to be a helper. Y4: Learn that what they see online is a chosen frame. Learn to choose who things are shared with online. Learn how to spot real and fake emails: disinformation. Learn how to be kind online, how to reframe negative comments into positive and practise reporting and blocking bullies. Learn about the choices they have if there is someone being bullied, practice what to do when they see or hear something upsetting online.	(From Internet Legends Scheme of Work) Y5: Learn about what digital footprints say about an individual and how to set up privacy settings. Learn strategies to work out if something is credible online. Learn the possible outcomes of sharing passwords, the importance of keeping them private and how to create secure yet memorable passwords. Learn about empathy and how to avoid misinterpreting information online. Identify inappropriate content and learn strategies for refusing and reporting it. Y6: Learn that their digital footprint and messages can be interpreted in different ways by different people online. Create search results without using a search engine. Refine search queries in a search engine. Learn about 2-step verification in addition to privacy and security settings in apps. Discuss what we can do if we feel unsafe online.

				Reframe negative comments to positive ones and practice reporting and blocking bullies and sharing kindness. Revisit and practice the choices they have if there is someone being bullied, and what to do when they see or hear something upsetting online.
To communicate	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. (EA&D)	Y1 Basic desktop/laptop skills- launch programs, manipulate windows, open and save files, drag objects. Word processing- learn to use a keyboard, type symbols and save files. Edit text. Select and format text and font. Use a simple painting program (desktop/ipad) to paint with different colours and brushes, create shapes, fill areas, make changes and add text. Make a poster to communicate information or ideas. Take photographs and videos. Open and delete photos and videos. Y2 Recreate a piece of art using a computer program. Switch between tools for different techniques and alter the formatting of a tool to adjust colour or size. Manipulate shapes and objects to recreate an art style. Create and open folders to save work into. Save, search for and print files.	Y3 Word processing- Select, align, format, cut, copy and paste text. Insert and format images and text boxes. Copy a screenshot into another application. Use <ctrl> keyboard shortcuts. Begin to use bullets and numbering. Presentation- Build upon presentation skills to create a branching story. Set slide themes, transitions, and animations. Create hyperlinks in the action settings. Insert audio and video. Evaluate slide layout and make improvements. Identify ways of communicating online, safely and responsibly. Y4 Word processing- Use some of the main keyboard shortcuts. Change the size of a page and use formatting tools to improve a layout. Apply specific effects to an image. Use the spellcheck tool and add a spelling to the spelling dictionary. Insert and format a table. Type at an appropriate speed. Create a hyperlink within a document. Animation- Describe one or more traditional methods of animation. Make slight changes to an image using 'onion skinning', understanding the term. Use a time slider to find a specific point in a film clip to insert or	Both Web Design- Evaluate webpages. Create a new webpage with a chosen layout. Insert and format text and images. Create a hyperlink. Publish and share created webpage. Radio Station- Use software to create own sounds by recording, editing and playing. Combine audio effects to create a radio jingle. Research and plan digital content for a radio podcast. Create and present digital content for a radio podcast. Design and record a persuasive radio advert for a product or service. Present and evaluate audio content. Film Making- Use appropriate software and other tools effectively to write a film script. Use digital recording devices to film and import into video editing software. Plan, conduct and import video interviews. Use video editing software to create a short film and then present it.

		Create presentation with text. Add and format images and text boxes. Reorder slides and present presentation. Learn about school/class blogs and how to use them safely and responsibly. Create and post blog posts or comments.	edit an object. Edit and refine images in a stop-motion animation short film clip. Compare different animation software by analysing good and bad points.	
To collect		**Y1&2** Recognise ways that technology is used in the home and community. Use safe search filters. Begin to use key vocabulary such as: Google, search engine, internet, website, image, keyboard, safe. **Y2** Use links to websites to find information Recognise age-appropriate websites.	**Y3** Understand the importance of word order when searching. Examine the search results and how to distinguish between a reliable and unreliable website or webpage. Save webpages in a browser, as well as in a file or folder. Understand how this can be shared with others. **Y4** Safely and effectively use the internet to support research in other subjects.	**Y5&6** Use safe search terms on trusted search engines and evaluate websites based on layout and information. Become more confident in understanding Google rankings, adverts and the reliability of websites. **Y6** Select the correct method to display data. Learn to use software such as spreadsheets. Learn how to check the accuracy of data and compare data for a specific purpose.

Learning Values	
Ready	Learn rules. Adapt ideas. Creativity. Try new things. Persevere. Curiosity about how things work. Confidence to make decisions based on knowledge and take risks. Ready for change and future technology. Try new things and be curious about different tools and options. Choose appropriate technology and application for given purpose. Consider best way to communicate or present ideas. Creativity. Adapt ideas. Persevere Curiosity and desire to learn. Ask appropriate questions. Adapt ideas based on findings or needs.
Respectful	Acceptance of individuals, groups and differences to be found or connected with online. Healthy online relationships and behaviour. Can seek help for self or others Respect for practical equipment. Learn rules for situations. Consider potential users when designing. Good communication if working with others. Able to communicate in different ways. Respectful communicator. Reflect on own learning.

	Respect for equipment and technology. Good communication if working with others.
	Acceptance of individuals, groups and differences to be found or connected with online.
Safe	Awareness of safety for self and others. Responsibility for details and online behaviour. Assess and adapt to situations.
	Healthy relationship with tech, consider well-being.
	Awareness of using internet safely, appropriate websites and content. Can respond appropriately to problems.