St Teresa's Catholic Primary School

Computing Progression Map

Respect – Resilience – Read – Retain

'Do the little things well'

	Digital Literacy	Information Technology	Computer Science	Vocabulary
YF	• **Recognise a selection of digital devices in school and at home.** • Understand that things they create belong to them and can be shared with others using technology. • Recognise that they can use the Internet to play and learn. • **Develop an interest in Computing by using age appropriate websites or programs**.	• **Children are able to select and use technology for a particular purpose, e.g. to take a photo.** • **Recognise the basic parts of a computer, e.g. mouse, screen, keyboard.** • Children can complete a simple program on a computer or tablet. • Be aware that a username and password is needed to log onto a laptop. • Use paint programs to create pictures. • Use a mouse, touchscreen or touchpad to select options on screen, e.g. to rearrange objects and pictures on a screen. • Recognise text, images and sound when using Computing. • Use a camera or sound recorder to collect photos or sound. • Begin to use a keyboard.	• Help adults operate equipment around the school, independently operating simple equipment. • **Use simple software to make things happen.** • Press buttons on a Beebot and talk about the movements. • Explore options and make choices with toys, software and websites such as sound, movements or new images – laptop, BeeBot or iPad. • **Explore that instructions are algorithms.**	Computer, laptop, Keyboard, mouse, monitor, computer tower, text, image, sound, BeeBot, instruction
Y1	• Know that the internet is accessed all over the World and know some devices are connected to the internet. • With support from an adult be able to find information on the internet. • Identify examples of technology in the classroom • **Be able to name parts of the computer** • **Explain how technology helps us** • Identify whether technology is an inputs or outputs	• Be able to log onto a computer with a password • Be able to navigate around the screen with a mouse or touchpad • Know how to type text using space bar for separate words to create something meaningful • Know how to delete text • **Be able to independently find and use an app on a tablet for instance to take and view a video or photograph** • **Be able to save work in their documents**	• Know which button on a device represents which action (Bee Bot) • Know how to program a robot to follow simple sequence of instructions (1- 2 turns) • **Make a simple sequence of algorithm** • Be able to make simple predications about an algorithm and a program. The Bee Bot will go…. • **Be able to change (debug) the program to improve the route** • **Explore that clear instructions are algorithms.**	Keyboard, Mouse, Internet, App, Screen, Computer, Save, Click, Website, algorithm, "delete key" "Shift Key", Documents, coding, data, input, output, decomposition
Y2	• With support be able to use a safe search engine • **Be able to name parts of a computer and discuss purpose of each** • **Identify what a computer is (input > process > output)** • **I can identify some common uses of technology outside of school**	• Be able to save, retrieve and print work on the laptop and iPad • Know how to type and format text including basic punctuation and capital letters • Be able to confidently use pointing device (mouse and touchpad) • Be able to add and create simple images • Be able to combine simple text and graphics, for instance create a poster for a purpose • **I can start to organise my files (e.g. using file names and folders)**	• Know how to program a BeeBot to achieve a set goal (sequence of 6-7 instructions: maze, quizzes) • **Begin to use block programming (Scratch Jr) to complete a simple program.** • **Be able to debug more complex problems e.g. a route on maze.** • **Know that clear and ordered instructions are needed for algorithms.**	Sequence, Debug, Program, Open *(a document picture etc.)*, Code, "Space Bar", "Enter Key", Online, Images, Edit, "Shift Key", Print, Retrieve,

Y3	• Use a Search engine to find information given key words • **Know which websites are useful and begin to understand all might not be trustworthy.** • Be able to log in and out of websites used at school • Understand how information is shared on the Internet • **Understand what a network is** • **Name the key parts of a network** • **Explain what a server does**	• Be able to log in to computer system as themselves and can find their documents (personal drive) • Know how to open shared documents and pictures. • Know how to use software (Publisher) to create a simple brochure or poster. • Know how to sequence and add to slides to make a simple presentation (Presentation). • **Create a meaningful document that contains both pictures and text.**	• **Be able to use a block program (Scratch) to make a simple programme using sequencing and timing.** • Inputs sets of instructions according to programming language and environment. • Use repeat loops for instance to create a program to draw regular 2D shapes. • Independently be able to debug basic mistakes • Begin to use conditionals – If I click here then this happens…	Loop, Repetition, Prediction, Search, Search Engine, Document, Folder, Software, File, Settings, Cursor, Pointer, Settings, Special Characters, Network, Device, Wireless,
Y4	• Know what the key words are to enter into a Search engine to find information they want. • **Can select useful websites from the results of a search.** • **Understand that networks connect to the Internet via a router** • **Understand how computer networks can provide multiple services, such as the World Wide Web**	• Be able to save a document in a shared folder and retrieve this to continue working on it. • **Be able to organise their personal folder effectively** • **Know how to change font size and style; include shapes and backgrounds and to use the Spellcheck function (right-click)** • **Know how to collect and present data (J2e)** • To be able to use sequence to create an effective presentation or video • **Be able to deliver a simple presentation to their peers**	• **Be able to use a program to sequence, use conditionals and use a variety of inputs and outputs (Scratch)** • Debug programs that accomplish specific goals • Be able to explain how their program works • **Be able to modify their program and be able to predict the effects of any changes** • Know how to break sets of instructions into short steps to achieve goal. (For instance, drawing repeated squares to make a pattern)	Conditional, Selection, Browser, Privacy, Online, Offline, Hacking, Input, Output, Images, Flowchart, WiFi, Router, USB Port
Y5	• Effectively use a search engine to find multiple criteria using AND/OR to refine searches • **I can name a range of useful ways in which technology can be used outside of school** • **Know how to compare information from different websites and know that some sites may show bias** • **Use common keyboard short cuts, e.g. ctrl C for copy and Ctrl V for paste** • Type using fingers on both hands	• To be able to share their work from their personal folder to work collaboratively with others. • Be able to select the best program for the task. • **Using software to know how to add data into a prepared spreadsheet to answer simple questions.** • **Independently, prepare an effective presentation to show their learning to others which includes some elements of timing or sequence.** • To create and sequence a video, add sound effects, transitions and title/subtitles. • I understand that my work can be saved in a range of places.	• Use customisation to change a working program to change its effect. (For instance, backgrounds and sprite in scratch). • **Uses loops to achieve goals (Scratch – shapes, letters) and recognises it can save time.** • Uses variables, conditional sentences (when/then), external triggers and loops to achieve set goals (creating game in Scratch, interactive slides in PowerPoint or Keynote for instance to create an interactive story. • Solve problems by decomposing them into smaller parts. • **Use logical reasoning to detect and correct errors in algorithms** • **To understand the need to test and retest whilst a program is being developed.**	Spreadsheet, Cell, Variable, Object, Transition, Trigger, "Fake News", Presentation, VR (Virtual Reality), AR (Augmented Reality), URL (Uniform Resource Locator – *Website address…*), Database

Y6	• **Know that search results can be manipulated by sponsorship and advertising.** • Know how to validate information found through searches by checking more than one source. • Know that some news is 'fake.' • **Use a range of keyboard shortcuts** • **Type efficiently using both hands** • Recognise that different devices may have different operating systems • **Recognise the dangers of communicating and collaborating with others online** • **Know that images found online are copyrighted (fair use of media).**	• **Know how to use the main features of office software to produce suitable documents and presentations for an audience.** • Know how to edit a picture. • **Know how to create a simple formula in a spreadsheet to work out given mathematical tasks such as adding a set of numbers.** • **To be able to use two or more programmes to create a final piece of work. (eg, edit a picture before inserting into a document).** • Recognise the audience when designing and creating digital content.	• Use conditional sentences (when/then) to program objects (Scratch, Micro:Bit) • As above but use mathematical expressions when constructing conditionals e.g. trigger winning when (If loops >5 then…) • **Be able to explain what a program will do and accurately predict the effect of changes.** • Be able to reliably modify existing algorithms and code to change the effect of the program. • Be able to make an efficient program by using an effective algorithm and techniques such as loops and procedures • **Understand that any system requires input devices (eg keyboard) and output devices (3D printer) and that the system processes the data**	Equation, Manipulate, URL, Version, Hardware, "Print Screen", "Escape Key", "Special Character", Phishing, Website, Webpage, Copyright, Preview, Evaluate, Hyperlink, 3D printer, Modify, Ranking, Micro:Bit