Computing

Years R-3 yearly progression

	Reception	Year 1	Year 2	Year 3
Digital Literacy (Digital Citizenship & Technology Digital Creativity)				
Knowledge	**Digital Literacy** (Digital Citizenship & Technology Digital Creativity) • To know who to talk to if something worries me. • To know how to ask for help when I need it.	**Digital Literacy** (Digital Citizenship & Technology Digital Creativity) • To know how to use technology safely. • To know how to keep personal information private. • To know how to use technology safely. • To know how to safely use a website. • To know how technology is used safely in school and outside of school.	**Digital Literacy** (Digital Citizenship & Technology Digital Creativity) • To know how to use technology respectfully. • I know where to go for help if I am concerned. • To know how to keep personal information private. • To know that the internet can be used to search for information online.	**Digital Literacy** (Digital Citizenship & Technology Digital Creativity) • To explain how digital devices function
Computer Science (*Algorithms, problem solving and programming*)				
Knowledge	**Computer Science** (*Algorithms, problem solving and programming*) • To know what it means to debug (problem solve).	**Computer Science** (*Algorithms, problem solving and programming*) • To know how to create an algorithm. • To know how to debug an algorithm.	**Computer Science** (*Algorithms, problem solving and programming*) • To know to program a range of instructions (e.g. direction, angles, turns). • To understand that programs require precise instructions. • To predict what the outcome of a simple program will be. (logical reasoning)	**Computer Science** (*Algorithms, problem solving and programming*) • To know that commands have an outcome. That a program has a start and to recognise that a sequence of commands can have an order. • To know that when programming, there are four levels which can help describe a project (known as levels of abstraction).

				• To know that algorithms are used on digital devices. • To know how to load and make simple changes in an application. • To know how to explore and make simple changes in an application.	• Task - what is needed • Design - what it should do • Code - how it is done Running the code - what it does.
Information Technology (Digital Productivity Creating content)					
Knowledge	**Information Technology** (Digital Productivity Creating content) • To know a range of technology used at home and within school. • To know what is and isn't technology. • To know what is meant by a 'sensible amount of screen time.'	**Information Technology** (Digital Productivity Creating content) • To know how to log onto a computer and open an application • To know how to type on a word processor and save digital content. • To know how to edit and retrieve digital content. • To know how to create digital content using shapes and different brush tools with software. • To know how to combine text and pictures to create a document.	**Information Technology** (Digital Productivity Creating content) • To know how to collect data. • To know how to organise data according to their attributes. • To know how to create and draw conclusions from a pictogram • To know how to share information using a digital device.	**Information Technology** (Digital Productivity Creating content) • To identify input and output devices. • To recognise how digital devices can change the way we work. • To explain how a computer network can be used to share information. • To explore how digital devices can be connected. • To recognise the physical components of a network. • To know how to explain why it is helpful for a database to be well structured. • To know what a branching database is.	

				• To know what a pictogram is.
Skills	• To know the effect of pressing a button/interacting with technology. • To know how to programme a simple 1 step instruction. • To know how to use technology to take a picture. • To know how to follow simple instructions independently or supported by an adult when using a computer/ iPad.	• To know how to record video and play it back. • To know how to create an algorithm. • To plan a journey for a programmable toy. • To know how to create digital content. • To know how to store digital content. • To know how to retrieve digital content.	• To know how to organise digital content. • To know how to retrieve and manipulate digital content. • To know to create digital content. • To know how to store and share digital content. • To know how to write a simple program. • To know how to test and amend a set of instructions (debug).	• To know how to layout text and images to convey meaning using desktop publishing considering how different layouts can suit different purposes. • To know how to create a branching database and its application. • To how to create and use a pictogram. • To know how to write and debug a programme.
Vocab	Computer, Debug, Communication technology, Interactive white-board, screen, mouse, keyboard, internet, input.	Algorithm, Coding, Data, Debug, Hardware, Internet, text, image	Decomposition, Algorithm, Coding, Data, Debug, Logical reasoning,	Desk top publishing, Text, images, return, backspace, shift, font size, colour, Input, output, digital device, process, switch, connect, network, server, computer, Programming, code, sequence, commands, algorithms information, wireless access point (wi-fi point), Data, pictogram, branching database,

*Highlighted parts of the document indicate where internet safety is taught.