Computing Knowledge and Skills Progression Map	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	End Points
EYFS							
Year 1	*Digital writing:* To use a computer to write, add and remove text. To identify the look of text can be changed (size, bold, italics) To make careful choices when changing text.	Programming B introduction to animation (Scratch) To choose a command for a given purpose. To show that a series of commands can be joined together. To identify the effect of changing a value. To explain that each sprite has its own instructions. To design the parts of a project and to use their own algorithm to create a program.	*Computing Systems and Networks*: IT around us. To identify technology, a computer and its main parts. To use a mouse and a keyboard to type and to edit text. OS: to create rules for using technology responsibly.	*Creating media:* To be able to describe what different freehand tools do, To use the shape and the line tools. To make choices and justify them when painting a digital picture.	*Grouping data:* To be able to label objects, identify objects that can be counted. To describe objects in different ways. To count objects with the same properties. To compare groups of objects and to answer questions about groups of objects	*Programming A: to move a robot (*Beebots) To explain what a given command will do and act out a given word. To combine forward and backwards commands to make a sequence. To combine four direction commands to make sequences, to plan a simple program. To find more than one solution to a problem.	**Write and edit text, to create simple programs, to organise data by creating pictograms, to paint a digital picture using shapes and lines.** **To use simple commands to direct a robot.**

Year 2	*System & Networks: technology around us:* To recognise the uses and features of Information technology. To identify how IT is used in school and beyond school. To explain how technology helps us and how it can be used safely. To recognise choices can be made when using IT.	*Creating media digital photography:* To use a digital device to take photos. To make choice about how to take a photo. To describe what makes a good photo and how to improve it. To use tools to change an image. To recognise that photos can be changed.	*Creating media making music:* To say how music can make us feel. To identify patterns in music. To show how music is made from a series of notes, to create music for a purpose. To review and refine our computer work.	*Grouping data:* To say how we can count and compare objects using tally charts. To recognise objects can be represented by pictures. To create a pictogram. To select objects by attributes and compare. To recognise that people can be represented by attributes. To explain we can present information using a computer.	*Programming A: Robot algorithms.* To describe a series of instructions as a sequence. To explain what happened when we change the order of instructions. To use logical reasoning to predict the outcome of a program or a series of commands. To explain that programming projects can have code and artwork. To design, then debug a set of algorithms. This could be linked to an	*Programming B: an introduction to quizzes* To explain a sequence of commands has a start. To create a program using a given design. To change a given design. To create a program using their own design. To edit and improve their program.	

					English writing activity.		
Year 3	***System & Networks: connecting computers*** To explain how digital devices function. -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.	*Creating Media: Stop-frame* animation -To explain that animation is a sequence of drawings or photographs -To relate animated movement with a sequence of images -To plan an animation -To identify the need to work consistently and carefully -To review and improve an animation -To evaluate the impact of adding other media to an animation	*Programming A: sequencing sounds* - To explore a new programming environment -To identify that commands have an outcome -To explain that a program has a start -To recognise that a sequence of commands can have an order -To change the appearance of my project -To create a project from a task description	*Data and Information: Branching databases* -To create questions with yes/no answers -To identify the attributes needed to collect data about an object -To create a branching database -To explain why it is helpful for a database to be well structured -To plan the structure of a branching database -To independently create an identification tool	*Creating Media: Desktop publishing* -To recognise how text and images convey information -To recognise that text and layout can be edited -To choose appropriate page settings -To add content to a desktop publishing publication -To consider how different layouts can suit different purposes -To consider the benefits	*Programming B – Events and Actions in Programmes* -To explain how a sprite moves in an existing project -To create a program to move a sprite in four directions -To adapt a program to a new context -To develop my program by adding features -To identify and fix bugs in a program -To design and create a maze-based challenge	

					of desktop publishing		
Year 4	*Systems and Networks: The Internet* -To describe how networks physically connect to other networks -To recognise how networked devices make up the internet -To outline how websites can be shared via the World Wide Web (WWW)	*Systems and Networks: The Internet* To describe how content can be added and accessed on the World Wide Web (WWW) -To recognise how the content of the WWW is created by people -To evaluate the consequences of unreliable content	*Creating Media: Photo-editing* -To explain that the composition of digital images can be changed -To explain that colours can be changed in digital images -To explain how cloning can be used in photo editing -To explain that images can be combined -To combine images for a purpose -To evaluate how changes can improve an image	*Creating Media: Audio Production* -To identify that sound can be recorded -To explain that audio recordings can be edited -To recognise the different parts of creating a podcast project -To apply audio editing skills independently -To combine audio to enhance my podcast project -To evaluate the effective use of audio	Programming A – Repetition in shapes -To identify that accuracy in programming is important -To create a program in a text-based language -To explain what 'repeat' means -To modify a count-controlled loop to produce a given outcome -To decompose a task into small steps -To create a program that uses count-	*Programming B – Repetition in games* -To develop the use of count-controlled loops in a different programming environment -To explain that in programming there are infinite loops and count controlled loops -To develop a design that includes two or more loops which run at the same time -To modify an infinite loop in a given program -To design a project that includes repetition -To create a project that	

					controlled loops to produce a given outcome	includes repetition	
Year 5	*Systems and Networks: sharing information.* To explain that computers can be connected together to form systems. To recognise the role of computer systems in our lives. To recognise how information is transferred over the internet. To explain how sharing information online lets people in different places work together. To contribute to a shared project online. To evaluate different ways of	*Data and information: flat-file databases* To use a form to record information. To compare paper and computer-based databases. To outline how grouping and then sorting data allows us to answer questions To explain that tools can be used to select specific data. To explain that computer programs can be used to compare data visually. To apply my knowledge of a database to ask	*Creating media: video editing* To explain what makes a video effective. To identify digital devices that can record video. To capture video using a range of techniques. To create a storyboard To identify that video can be improved through reshooting and editing. To consider the impact of the choices made when making and sharing a video	*Creating media - Vector Drawing.* To identify that drawing tools can be used to produce different outcomes. To create a vector drawing by combining shapes. To use tools to achieve a desired effect. To recognise that vector drawings consist of layers. To group objects to make them easier to work with. To evaluate my drawing.	*Physical Computing: Crumbles* To control a simple circuit connected to a computer. To write a program that includes count-controlled loops. To explain that a loop can stop when a condition is met To explain that a loop can be used to repeatedly check whether a condition has been met. To design a physical project that	*Programming B: Selection in Quizzes* To explain how selection is used in computer programs. To relate that a conditional statement connects a condition to an outcome. To explain how selection directs the flow of a program. To design a program which uses selection. To create a program which uses selection. To evaluate program.	

	working together online	and answer real-world questions			includes selection. To create a program that controls a physical computing project.		
Year 6	***Systems and Networks: sharing information*** To describe how search engines select results. To explain how search results are ranked. To recognise why the order of results is important, and to whom. To recognise how we communicate using technology. To evaluate different methods of online communication	**Creating Media - Web Page Creation** To review an existing website and consider its structure. To plan the features of a web page. To consider the ownership and use of images (copyright). To recognise the need to preview pages To outline the need for a navigation path. To recognise the implications of	**Programming A – Variables in games** To define a 'variable' as something that is changeable. To explain why a variable is used in a program. To choose how to improve a game by using variables. To design a project that builds on a given example. To use my design to create a project.	**Data and information – Spreadsheets.** To identify questions which can be answered using data. To explain that objects can be described using data. To explain that formulas can be used to produce calculated data. To apply formulas to data, including duplicating. create a spreadsheet to plan an event.	**Creating media – 3D Modelling** To use a computer to create and manipulate three-dimensional (3D) digital objects. To compare working digitally with 2D and 3D graphics. To construct a digital 3D model of a physical object. To identify that physical objects can be	**Programming B – Sensing** To create a program to run on a controllable device. To explain that selection can control the flow of a program. To update a variable with a user input. To use a conditional statement to compare a variable to a value. To design a project that uses inputs and outputs on a controllable device.	

		linking to content owned by other people.	To evaluate my project	To choose suitable ways to present data	broken down into a collection of 3D shapes. To design a digital model by combining 3D objects. To develop and improve a 3D model.	To develop a program to use inputs and outputs on a controllable device.	