Computing Progression Map

Concept	EYFS			Y1/2	Y3/4	Y5/6
	Pre-nursery	**Nursery**	**Reception**			
Technology around us	I investigate different types of technology in the classroom	I can use the touch screen on the IWB I can use a metal detector to explore and locate items	I can locate examples of technology in the classroom	I can name the main parts of a computer I can switch on and log into a computer I can use a mouse to click and drag I can use a mouse to create a picture & open a program I can save my work to a file and open it I can type my name on a computer I can delete letter I can use the arrow keys to move the cursor I can identify rules to keep us safe and healthy when we are using technology in and beyond the home	I can follow a process I can classify input and output devices I can design a digital device I can explain how I use digital devices for different activities I can explain how messages are passed through multiple connections I can demonstrate how information can be passed between devices I can explain the role of a switch, server, and wireless access point in a network I can identify how devices in a network are connected together I can identify networked devices around me I can identify the benefits of computer networks	I can compare results from different search engines I can make use of a web search to find specific information I can refine my web search to use a search engines I can explain why we need tools to find things onl I can recognise the role of web crawlers in creating an index I can relate a search term to the search engine's index I can explain that a search engine follows rules to rank results I can give examples of criteria used by search engines to rank results I can order a list by rank I can describe some of the ways that search results can be influenced
				I can describe some uses of computers I can identify examples of IT I can identify that some IT can be used in more than one way I can sort school IT by what it's used for I can find examples of information technology I can sort IT by where it is found I can demonstrate how IT devices work together I can recognise common types of technology I can list different uses of information technology I can say how rules can help keep me safe I can talk about different rules for using IT I can identify the choices that I make when using IT I can use IT for different types of activities	I can demonstrate how information is shared across the internet I can describe the internet as a network of networks I can discuss why a network needs protecting I can describe networked devices and how they connect I can recognise that the World Wide Web contains websites and web pages I can describe where websites are stored when uploaded to the WWW I can explain the types of media that can be shared on the WWW I can explain that internet services can be used to create content online I can know that I can add content to the WWW I can explain that there are rules to protect content I can suggest who owns the content on websites	I can describe how computers use addresses to access websites I can recognise that data is transferred using agreed methods I can identify and explain the main parts of a data packet I can explain that the internet allows different media to be shared I can access shared files stored online I can send information over the internet in different ways I can identify different ways of working together online I can choose methods of communication to suit particular purposes I can compare different methods of communicating on the internet I can decide when i should and should not share information online
Creating media	I can make marks on a screen I can record my voice using a digital device	I can make marks on a screen and explain which tools I used I can use the paint tools to draw a picture I can use a device to take a digital photograph I can record my voice on a mobile phone for a purpose	I can use the shape and line tools effectively I can choose appropriate shapes I can make appropriate colour choices I can say which tools were helpful and why I can change the colour and brush sizes I can make dots of colour on the page	I can identify and find keys on a keyboard I can open a word processor- I can enter text into a computer I can use backspace to remove text I can use letter, number, and space keys I can identify the toolbar and use bold, italic, and underline I can type capital letters I can change the font I can select all of the text by clicking and dragging I can select a word by double-clicking I can decide if my changes have improved my writing I can say what tool I used to change the text I can use 'undo' to remove changes I can make changes to text on a computer I can say why I prefer typing or writing	I can create an effective flip book—style animation I can create an effective stop-frame animation I can predict what an animation will look like I can create a storyboard I can describe an animation that is achievable on screen I can evaluate the quality of my animation I can review a sequence of frames to check my work I can use onion skinning to help me make small changes between frames I can evaluate another learner's animation I can explain ways to make my animation better I can improve my animation based on feedback I can add other media to my animation I can evaluate my final film I can explain why I added other media to my animation	I can create a database using cards I can order, sort, and group my data cards I can choose which field to sort data by to answer a given question I can navigate a flat-file database to compare different views of information I can combine grouping and sorting to answer specific questions I can group information using a database I can choose multiple criteria to answer a given question I can choose which field and value are required to answer a given question I can outline how 'and' and 'or' can be used to refine data selection I can refine a chart by selecting a particular filter I can select an appropriate chart to visually compare data I can ask questions that will need more than one field to answer I can refine a search in a real-world context
			I can say whether I prefer painting using a computer or using paper I can spot the differences between painting	I can say what I do and don't like about a piece of music I can connect images with sounds I can relate an idea to a piece of music I can use a computer to experiment with rhythm and pitch I can refine my musical pattern on a computer I can add a sequence of notes to my rhythm I can create a rhythm that represents an animal I've chosen I can create my animal's rhythm on a computer	I can explain why I might crop an image I can improve an image by rotating it I can use photo editing software to crop an image I can experiment with different colour effects I can add to the composition of an image by cloning I can identify how a photo edit can be improved I can remove parts of an image using cloning	I can discuss the different types of media used on websites I can draw a web page layout that suits my purpose I can recognise the common features of a web page I can suggest media to include on my page I can find copyright-free images I can say why I should use copyright-free images I can add content to my own web page I can evaluate what my web page looks like on different

Computing Progression Map

Category						
			on a computer and on paper	I can listen to music and describe how it makes me feel I can review my work ~~I can explain how I changed my~~	I can experiment with tools to select and copy part of an image I can use a range of tools to copy between images I can choose suitable images for my project I can create a project that is a combination of other images I can combine text and my image to complete the project I can review images against a given criteria I can use feedback to guide making changes	devices and suggest/make edits I can preview what my web page looks like ~~I can describe why navigation paths are useful~~I can make multiple web pages and link them using hyperlinks I can create hyperlinks to link to other people's work I can evaluate the user experience of a website
Data & Information	I can use the Relish programme to choose my lunch with an adult	I can independently choose my lunch on the Relish programme I can follow the commands on the traffic light	I can independently choose my lunch on the Relish programme I can use an electronic microscope to investigate objects	I can identify the label for a group of objects I can match objects to groups I can describe a property of an object I can find objects with similar properties I can group objects in more than one way I can choose how to group objects I can record how many objects are in a group I can compare groups of objects I can decide how to group objects to answer a question I can record and share what I have found	I can create two groups of objects separated by one attribute I can make up a yes/no question about a collection of objects I can arrange objects into a tree structure I can create a group of objects within an existing group I can select an attribute to separate objects into groups I can group objects using my own yes/no questions I can select objects to arrange in a branching database I can test my branching database to see if it works I can compare two branching database structures I can create yes/no questions using given attributes I can create a physical version of a branching database I can create questions that will enable objects to be uniquely identified I can independently create questions to use in a branching database I can create a branching database that reflects my plan I can suggest real-world uses for branching databases	I can create a database using cards I can order, sort, and group my data cards I can choose which field to sort data by to answer a given question I can navigate a flat-file database to compare different views of information I can combine grouping and sorting to answer specific questions I can group information using a database I can choose multiple criteria to answer a given question I can choose which field and value are required to answer a given question I can outline how 'AND' and 'OR' can be used to refine data selection I can refine a chart by selecting a particular filter I can select an appropriate chart to visually compare data I can ask questions that will need more than one field to answer I can refine a search in a real-world context
				I can compare totals in a tally chart I can record data in a tally chart I can enter data onto a computer I can use a computer to view data in a different format I can use pictograms to answer simple questions about objects I can use a tally chart to create a pictogram I can create a pictogram to arrange objects by an attribute I can choose a suitable attribute to compare people and collect the data I need I can create a pictogram and draw conclusions from it	I can choose a data set to answer a given question I can suggest questions that can be answered using a given data set I can use data from a sensor to answer a given question I can identify the intervals used to collect data I can sort data to find information I can view data at different levels of detail I can plan how to collect data using a data logger I can propose a question that can be answered using logged data I can use a data logger to collect data I can draw conclusions from the data that I have collected I can interpret data that has been collected using a data logger	I can enter data into a spreadsheet I can suggest how to structure my data I can apply an appropriate format to a cell I can choose an appropriate format for a cell I can construct a formula in a spreadsheet I can apply a formula to multiple cells by duplicating it I can calculate data using different operations I can create a formula which includes a range of cells I can apply a formula to calculate the data I need to answer questions I can use a spreadsheet to answer questions I can produce a chart I can suggest when to use a table or chart I can use a chart to show the answer to questions
Programming	I can press buttons on cause and effect toys to see what will happen I can predict what will happen when a press a button on a toy	I can use the controls to move the remote control car I can give directions	I can match a command to an outcome I can predict the outcome of a command on a device I can run a command on a device	I can compare different programming tools I can find which commands to move a sprite I can use commands to move a sprite I can run my program I can use a Start block in a program I can use more than one block by joining them together I can say what happens when I change a value I can delete a sprite I can show that a project can include more than one sprite	I can identify the objects in a Scratch project (sprites, backdrops) I can choose a word which describes an on-screen action for my plan I can create a program following a design I can identify that each sprite is controlled by the commands choose I can create a sequence of connected commands I can start a program in different ways I can combine sound commands I can order notes into a sequence I can build a sequence of commands I can decide the actions for each sprite in a program I can make design choices for my artwork	I can create a simple circuit and connect it to a microcontroller I can program a microcontroller to make an LED switch on I can connect more than one output component to a microcontroller I can design sequences that use count-controlled loops I can use a count-controlled loop to control outputs I can design a conditional loop I can program a microcontroller to respond to an input I can identify a condition and an action in my project I can use selection (an 'if...then...' statement) to direct the flow of a program I can identify a real-world example of a condition starting an action I can test and debug my project I can use selection to produce an intended outcome I can write an algorithm that describes what my model will do
				I can follow instructions given by someone else I can give clear instructions	I can modify a snippet of code to create a given outcome I can predict the outcome of a snippet of code	I can decide where in a program to change a variable I can make use of an event in a program to set a variable

Computing Progression Map

				I can show the difference in outcomes between two sequences that consist of the same commands I can use an algorithm to program a sequence on a floor robot I can use the same instructions to create different algorithms I can compare my prediction to the program outcome I can follow a sequence I can predict the outcome of a sequence explain the choices I made for my mat design I can identify different routes around my mat I can test my mat to make sure that it is usable I can create an algorithm to meet my goal I can explain what my algorithm should achieve I can use my algorithm to create a program I can plan algorithms for different parts of a task I can put together the different parts of my program I can test and debug each part of the program	I can choose when to use a count-controlled and an infinite loop I can modify loops to produce a given outcome I can evaluate the effectiveness of the repeated sequences used in my program I can explain the effect of my changes I can identify which parts of a loop can be changed I can re-use existing code snippets on new sprites I can develop my own design explaining what my project will do I can evaluate the use of repetition in a project I can select key parts of a given project to use in my own design I can build a program that follows my design I can evaluate the steps I followed when building my project I can refine the algorithm in my design	I can choose the artwork for my project I can create algorithms for my project I can choose a name that identifies the role of a variable I can create the artwork for my project I can test the code that I have written I can identify ways that my game could be improved I can share my game with others I can use variables to extend my game