Computing Progression Map: Code

Big Idea explained	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
This big idea is about developing an understanding of instructions, logic and sequences and how they are used to build programs.	To be able to give and follow a series of 2 or more instructions in order To know how to sequence familiar tasks	To know how to input directions to get from A to B To know how to give and follow a series of 3 or more instructions in order	To know that an algorithm is a set of precise instructions to solve a problem To know that the sequence of algorithms is important To know that algorithms can be implemented in real life or as programs on digital devices To know how to write simple algorithms to move a character To know how to debug simple algorithms	To know that programs follow precise and clear instructions To know that programs can respond to different inputs To know how to write sequential algorithms To know how to identify patterns to simplify algorithms To know how to use events with different inputs in a program (click or key press)	To know that programs control a range of physical systems (eg traffic lights, self driving cars) To know how to design and create programs to accomplish specific goals To know how to use logical reasoning to predict bugs in code To know how to identify patterns and repetition in algorithms	To know that computers use variables to keep count To use logical reasoning to predict and detect bugs in code To use variables to count score To use events with a range of inputs in programs To use conditional events to build more complex algorithms	To know that programs are created by decomposing a problem into smaller parts To know that programs can simulate physical systems To be able to work with a range of outputs To know how to use nested loops in code To assign properties to objects using co-ordinates To know how to evaluate my own programs and identify errors or improvements	To know that users make choices about the apps they use based on preferences To be able to identify the variables needed in more complex code To use events and behaviours to make apps suited to different audiences To use Boolean operators

Computing Progression Map: Connect

Big Idea explained	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
This big idea is about understanding how to use technology to connect safely with others	To know that they should only use apps and sites that an adult has checked. To know how to ask to use a device. To know how to ask for help using a device	To know that sometimes things online don't feel right and if that happens we should tell someone. To know how to ask for help if something online makes you uncomfortable	To know that information on the internet isn't always true. To know that the internet can be used to communicate and we should only communicate with people we know.	To know that it is important to seek permission before sharing pictures online. To know that you should not reply to messages from strangers on the internet To know how to protect personal information online. To begin to decide whether information on the internet is true	To know that privacy settings can be changed to keep your information safe. To know that people online aren't always who they say they are To know that passwords should be kept private	To know that all online activity leaves a digital footprint. To know that anything shared online could be saved even if you have deleted it To know how to create a strong password To know how to create a positive digital footprint	To know that phishing is an online scam To know how to respect the online privacy boundaries of others and create boundaries of our own To know how to build positive relationships online	To know how to think critically about what we see online To know how to respond to hurtful online behaviour

Computing Progression Map: Technology

Big Idea explained	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
This big idea is about using a range of apps to communicate your ideas and to store, organise and analyse data	To know how to take photos on a tablet or camera To know how to make drawings on a tablet or IWB To know how to use touch controls on a tablet	To know that the internet can be used to communicate To know how to take video or voice recordings on a tablet or camera To know how to use a mouse/trackpad to control a cursor and click on things To know how to use a keyboard to input letters and numbers	(Book Creator) To know how to type simple sentences To know how to draw images using a trackpad (including changing tool, colour and texture) To know how to choose appropriate images from the internet to illustrate a story To know how to use voice recording software	(Gmail) To know that emails can be used to communicate To know that email addresses have two parts and are unique to the receiver To know how to use Google Classroom to access assignments To know how to type sentences with growing confidence and use simple punctuation To know how to send an email To know how to open attachments in emails To know how to organise information in a table	(Google slides and surveys) To know how to use personal usernames and passwords to access a range of accounts (including using QR code logins and logging in with google) To know how to confidently type using a full range of punctuation. To know how to use google tools to build and share a survey To know how to use presentation software to share data collected in a survey To know that surveys can be used to collect information To know that data collected in a survey should only be used for its intended purpose To know that there are different question types in surveys, which are useful for different types of information	(Google slides and sheets) To know how to use presentation software to share data from a spreadsheet To know how to add images from the internet to a presentation To know how to add text to a presentation To know how to use a spreadsheet to organise information To know how to create graphs based on data collected in a spreadsheet To know how to refer to specific cells by row and column	(Google sites) To know how to add information from the internet to a google site To know how to add sections to a site To know how to add images to a site To know the difference between the internet at the world wide web To know how to add hyperlinks to a site To know how to embed videos from the internet into a site To know how to embed digital content created in other places to a site (eg. comics, voice recordings etc.)	(Sketch up) To know how to build 3D sculpture using Sketch up To know how to import files into a digital gallery To know how to convert file types To know how to create an animation To be able to choose the most appropriate app to publish work across the curriculum