

Caroline Haslett Computing Curriculum - Progression (Autumn 1)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
What are Computers?	<ul style="list-style-type: none"> ● I can log-on to the network independently ● I can recognise computers in a range of forms e.g. ipads, phones, laptops, netbooks, desktops ● I can explain that a computer responds to inputs e.g. keys being pressed causes typing ● I can discuss what might be inside devices e.g. a microphone/camera inside a mobile phone ● I can choose a sensible password including something I can remember/spell ● I can explain why I need to keep my password secret from other children 	<ul style="list-style-type: none"> ● I can save work into a folder ● I can recognise computers in a range of forms outside of school e.g. traffic lights, dvd players, microwaves ● I know that people interact with computers. ● I know that computers have no intelligence and that computers can do nothing unless a program is run. ● I know that all software executed on digital devices is programmed. ● I can choose a sensible password including something I can remember/spell ● I can explain why I need to keep my password secret from other children ● 	<ul style="list-style-type: none"> ● I can transfer files from external sources to the computer e.g. digital cameras, USB pen drives ● I know that a range of digital devices can be considered a computer. ● I can explain that a computer responds to inputs e.g. keyboard, microphone, scanner, camera ● I can explain that a computer shows what it's doing through outputs e.g. monitor, printer, speaker ● I can understand that a computer receives input through a circuit ● I can choose a sensible password including letters and numbers 	<ul style="list-style-type: none"> ● I can explain the difference between storing a file locally or on the internet ● I can explain the difference private and shared files ● I can explain and use a range of input and output devices. ● I can understand that a computer receives input through a circuit ● I know how programs specify the function of a general purpose computer. ● I can discuss what might be inside devices e.g. a microphone/camera inside a mobile phone ● I know the difference between data and information ● I can choose a sensible password including letters and numbers 	<ul style="list-style-type: none"> ● I can explain that a computer receives an input, processes it and then gives a visible output ● I can explain the various inputs and output connections in a simple computer ● I can connect the peripherals of a computer 	<ul style="list-style-type: none"> ● I know that computers collect data from various input devices, including sensors and application software. ● I know the difference between hardware and application software, and their roles within a computer system. ● I know why and when computers are used. ● I can show an awareness of tasks best completed by humans or computers. ● I know the main functions of the operating system.
Algorithms	<ul style="list-style-type: none"> ● I can explain that an algorithm is a set of instructions ● I can explain that algorithms are implemented on digital devices as programs. ● I can understand algorithms run in an order (from start to finish) ● I can sequence a set of instructions ● I can orally describe an algorithm (series of instructions) for a given task ● I can predict a change when I change part of my algorithm 	<ul style="list-style-type: none"> ● I can explain what an algorithm is ● I know that computers need precise instructions ● I can record a simple algorithm using symbols ● I can show care and precision to avoid errors ● I can use some terminology for loops and selection when discussing an algorithm 	<ul style="list-style-type: none"> ● I can write an algorithm for a task I do regularly e.g. getting ready for school ● I can debug my algorithm after testing it ● I can evaluate the efficiency of an algorithm ● I can record a more complex algorithm using a flowchart ● I can show care and precision to avoid errors ● I can use some terminology for loops and selection when discussing an algorithm 	<ul style="list-style-type: none"> ● I can plan a more complex algorithm using a flowchart ● I can write an algorithm for a task using loops and selection ● I can debug my algorithm after testing it ● I can discuss sort and search algorithms ● I can evaluate the efficiency of an algorithm 		