Curriculum progression – Computing



	Reception	Year 1/2	Year 3/4	Year 5/6
Computer Science	• Completes a simple program on electronic devices	• Know that an algorithm written for a computer is called a program • Work out what is wrong when the steps are out of order in instructions • Work out what is wrong when the steps are out of order in instructions • Make good guesses of what is going to happen in a program • Know that a computer program turns an algorithm into code that the computer can understand • Say that if something does not work how it should, it is because the code is incorrect • Try and fix the code if it isn't working properly • Explain an algorithm is a set of instructions to complete a task • Carefully plan an algorithm so it will work when made into code • Design a simple program that achieves a purpose • Find and correct some errors in aprogram • Say what will happen in a program	• Make a real-life situation into an algorithm for a program • Design an algorithm carefully, thinking about what I want it to do and how I can turn it into code • Identify an error in program and fix it • Experiment with timers in programs • Identify the difference in using the effect of a timer or repeat command in my code • Design a program thinking logically about the sequence of steps required • Experiment with the effect of using repeat commands • Turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code • Use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answer being entered • Use timers within my program designs more accurately to create repetition effects • Use selection (decision) in my programming. For example,	• Explain the difference between the internet and the World Wide Web • Explain what a WAN and LAN is and describe the process of how access to the internet in school is possible • Use inputs and outputs within my coded programs such as sound, movement and buttons and represent the state of an object



		• Spot something in a program that has an action or effect	using an 'if statement' for a question being asked and the program takes one of two paths • Use variables within my program and know how to change the value of variables • Use the user inputs and output features within my program, such as 'Print to screen' • Identify errors in my code by using different methods, such as steeping through lines of code and fixing them • Understand that network and communication components can be found in many different devices which allow them to join the internet • Read programs that contain several steps and predict the outcomes with increasing accuracy.	
Information Technology	• Uses ICT hardware to interact with age-appropriate computer software • Can create content such as a video recording, stories, and/or draw a picture on screen	• Sort sound, pictures and text • Name, save and find my work • Add sound, pictures and text to a program • Change content on a file such as text, sound and images • Organise data – for example, using a database • Find data using specific searches	• Carry out searches to find digital content on a range of online systems • Consider the most appropriate software to use when given a task • Share digital content using a variety of applications. • Work collaboratively to create content and solutions.	• Use filters when searching for digital content • Explain in detail how accurate and reliable a webpage and its contents is • Compare a range of digital content sources and rate them in terms of content quality and accuracy • Consider the intended audience carefully when I



		• Find data using specific searches • Edit digital data such as data in music composition software • Use several programs to organise information (binary trees/spreadsheets) • Include photos, text and sound in my creations	• Carry out searches to find digital content on a range of online systems • Collect data and input it into software • Analyse data using features within software to help • Present data and information using different software • Create purposeful (appropriate) content and attach this to emails	design and make digital content • Design and create own blogs • Use criteria to evaluate the quality of own and others digital solutions, suggesting refinements
Digital Literacy	• Develops digital literacy skills by being able to access, understand and interact with a range of technologies • Can use the internet with adult supervision to find and retrieve information of interest to them	• Keep login information safe • Save work in a safe place such as 'My Work' folder • Know the consequences of not searching online safely • Share work and communicate electronically • Report unkind behaviour and things that upset me online, to a trusted adult • See where technology is used at school such as in the office or canteen • Say what technology is • Say what examples of technology are in school • Say what examples of technology are at home • Know that a chair uses old technology and a smart phone uses new technology • Find information needed using a search engine	• Create a secure password • Explain the importance of having a secure password and not sharing it with others • Explain the negative consequences of not keeping passwords safe and secure • Understand the importance of keeping safe online and behaving respectfully • Use communication tools respectfully and use good etiquette • Report unacceptable content and contact online in more than one way to a trusted adult • Have a good understanding of the online safety rules we learn at school • Demonstrate how to use different online technologies safely	• Demonstrate safe and respectful use of a range of different technologies and online services • Identify more discrete inappropriate behaviours online • Use critical thinking to help me stay safe online • Know the value of protecting my privacy and others online



		• Know the consequences of not searching online safely • Understand that my creations need similar skills to the adult world	• Know I have a right to privacy both on and offline • Recognise that wellbeing can be affected by how technology is used • Report concerns with content and contact online and know immediate strategies to keep safe	