

Year 3 Computing Curriculum



Autumn	Computing systems and networks: Networks	Code.org
Year 3	-To understand that a network is a group of interconnected devices. -To know the components that make up a network (Wireless access point/WAP, Network switch, Router, Server and devices). -To know that a server is central to a network and responds to requests made. -To know that the internet connects all the networks around the world. -To know that a router connects us to the internet. -To know what a packet is and why it is important for website data transfer.	- Attend to precision when creating instructions - Identify and address bugs or errors in sequenced instructions - Name daily processes where you follow an algorithm of steps to complete a task. - Identify and locate bugs in a program. - Translate movements into a series of commands. - Modify an existing program to solve errors. - Predict where a program will fail. - Reflect on the debugging process in an age-appropriate way. - Develop problem solving and critical thinking skills by reviewing debugging practices. - Order movement commands as sequential steps in a program. - Represent an algorithm as a computer program. - Break complex shapes into simple parts. - Create a program to complete an image using sequential steps. - Use numbers as angle measurements and distances.
Spring	Computing systems and networks: Emailing	Computing systems and networks: Journey inside a computer
Year 3	-To understand that email stands for ‘electronic mail.’ -To know that an attachment is an extra file added to an email. -To understand that emails should contain appropriate and respectful content. -To know that cyberbullying is bullying using electronics such as a computer or phone.	-To know the roles that inputs and outputs play on computers. -To know what some of the different components inside a computer are e.g. CPU, RAM, hard drive, and how they work together. -To know what a tablet is and how it is different from a laptop/desktop computer.
Summer	Code.org	Data handling: Comparison cards databases
Year 3	- Identify repeated patterns in code that could be replaced with a loop - Write instructions that use loops to repeat patterns - Break down a long sequence of instructions into the largest repeatable sequence. - Employ a combination of sequential and looped commands to reach the end of a maze. - Identify the benefits of using a loop structure instead of manual repetition. - Employ a combination of sequential and looped commands to move and perform actions. - Identify when a loop can be used to simplify a repetitive action. - Write a program for a given task which loops a single command. - Differentiate between commands that need to be repeated in loops and commands that should be used on their own. - Identify the benefits of using a loop structure instead of manual repetition. - Write an algorithm by breaking down the steps to create an art piece.	-A database is a collection of data stored in a logical, structured and orderly manner. -Computer databases can be useful for sorting and filtering data. -Different visual representations of data can be made on a computer.