

Computing Year 5 Overview



	Autumn	Spring	Summer
Computing Year 5	Year 5 NC objectives	Year 5 NC objectives	Year 5 NC objectives
	<ul style="list-style-type: none"> Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) to create content that accomplish given goals, including collecting data and information. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. 	<ul style="list-style-type: none"> Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration. Design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 	<ul style="list-style-type: none"> Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web, and the opportunities they offer for communication and collaboration.
	Year 5 Key Learning	Year 5 Key Learning	Year 5 Key Learning
	<p>Computing systems and networks</p> <ul style="list-style-type: none"> Know how search engines work. To understand that anyone can create a website and therefore we should take steps to check the validity of websites. To know that web crawlers are computer programs that crawl through the internet. To understand what copyright is. <p>Programming 1 – Scratch and Makey-Makey</p> <ul style="list-style-type: none"> To program a soundtrack for a specific purpose using Scratch and Makey-Makey To know that loops can make the process of writing music simpler and more effective. <p>Online Safety</p> <ul style="list-style-type: none"> To understand how apps can access personal information and how to alter the permissions. 	<p>Data handling</p> <ul style="list-style-type: none"> To identify how and why data is collected from space. To read and calculate numbers using binary code. To use simple operations to calculate bit patterns. To represent binary as text <p>Programming 2 - Microbit</p> <ul style="list-style-type: none"> To know that a Micro:bit is a programmable device. To know that Micro:bit uses a block coding language similar to Scratch. To understand and recognise coding structures including variables. To know what techniques to use to create a program for a specific purpose (including decomposition). <p>Online Safety</p> <ul style="list-style-type: none"> To be aware of the positive and negative aspects of online communication. To understand how online information can be used to form judgements. 	<p>Creating media - iPads</p> <ul style="list-style-type: none"> To understand what stop motion animation is. To create and edit a stop motion animation. <p>Skills showcase</p> <ul style="list-style-type: none"> To understand that bit patterns represent images as pixels. To understand that the data for digital images can be compressed. To know the difference between ROM and RAM. To understand various techniques that will improve the design of a 3D object (using CAD software). <p>Online Safety</p> <ul style="list-style-type: none"> To discover ways to overcome online bullying. To understand how technology can affect health and wellbeing.
Vocabulary	Copyright, credit, data leak, deceive, pitch, loop, decompose, debug	8 bit binary, ASCII, binary code, Boolean, byte, CPU, Micro bit, Bluetooth, code blocks	Animator, fluid movement, flipbook, CAD, RAM, ROM, compressed, pixels