

Areas of Computing – Computing Systems and Networks

Progression of knowledge from Reception to Year 6

Year Group	Computing Systems & Networks – Knowledge Progression
Rec	<p>To be able to understand what a computer keyboard is and recognising some letters and numbers.</p> <p>To know that a mouse can be used to click, drag and create simple drawings.</p> <p>To know that to use a computer you need to log in to it and then log out at the end of your session.</p> <p>To know that different types of technology can be found at home and in school.</p> <p>To know that you can take simple photographs with a camera or iPad.</p> <p>To know that you must hold the camera still and ensure the subject is in the shot to take a photo.</p>
Year 1	<p>To know that "log in and log out" means to begin and end a connection with a computer.</p> <p>To know that a computer and mouse can be used to click, drag, fill and select and also add backgrounds, text, layers, shapes and clip art.</p> <p>To know that passwords are important for security.</p> <p>To know that when we create something on a computer it can be more easily saved and shared than a paper version.</p> <p>To know some of the simple graphic design features of a piece of online software.</p>
Year 2	<p>To know the difference between a desktop and laptop computer.</p> <p>To know that people control technology.</p> <p>To know that buttons are a form of input that give a computer an instruction about what to do (output). To know that computers often work together.</p> <p>To know that touch typing is the fastest way to type.</p> <p>To know that I can make text a different style, size and colour.</p> <p>To know that "copy and paste" is a quick way of duplicating text.</p>
Year 3	<p>To know what a tablet is and how it is different from a laptop/desktop computer.</p> <p>To understand what a network is and how a school network might be organised.</p> <p>To know that a server is central to a network and responds to requests made.</p> <p>To know how the internet uses networks to share files.</p> <p>To know that a router connects us to the internet.</p> <p>To know what a packet is and why it is important for website data transfer.</p> <p>To know the roles that inputs and outputs play on computers.</p> <p>To understand that email stands for 'electronic mail.'</p> <p>To know that an attachment is an extra file added to an email.</p> <p>To understand that emails should contain appropriate and respectful content.</p> <p>To know what some of the different components inside a computer are e.g. CPU, RAM, hard drive, and how they work together.</p>
Year 4	<p>To understand that software can be used collaboratively online to work as a team.</p> <p>To know what type of comments and suggestions on a collaborative document can be helpful.</p> <p>To know that you can use images, text, transitions and animation in presentation slides.</p>
Year 5	<p>To know how search engines work.</p> <p>To understand that anyone can create a website and therefore we should take steps to check the validity of websites.</p> <p>To know that web crawlers are computer programs that crawl through the internet.</p> <p>To understand what copyright is.</p> <p>To know the difference between ROM and RAM.</p>
Year 6	<p>To understand the importance of having a secure password and what "brute force hacking" is.</p> <p>To know that the first computers were created at Bletchley Park to crack the Enigma code to help the war effort in World War 2.</p> <p>To know about some of the historical figures that contributed to technological advances in computing.</p> <p>To understand what techniques are required to create a presentation using appropriate software.</p>