

Progression of knowledge in computing at The Welbeck Federation

Key Area	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Programming	<p>Know that simple equipment can be controlled.</p> <p>Know that a digital device can simulate things which happen in real life.</p>	<p>Know that a device can be controlled by giving a set of simple instructions called an algorithm.</p> <p>Know that a digital device may be used to simulate a wide range of environments and situations.</p>	<p>Know that algorithms can have multiple steps to solve a problem and that sometimes the steps need to be changed to achieve a desired outcome</p> <p>Know that digital simulation allows users to explore options and make choices.</p>	<p>Know that devices are controlled by a set of repeated instructions.</p> <p>Know that digital simulations allow users to test ideas.</p>	<p>Know that a procedure is a set of instructions that can be repeated in a program.</p> <p>Know that variables can be changed in a simulation to test and achieve a desired outcome.</p>	<p>Know that control systems have a number of distinct components that combine to work effectively</p> <p>Know that digital games and simulations are written using a programming language.</p>	<p>Know that Devices can be controlled through direct instructions or from sensing equipment.</p> <p>Know that control programs can be written to respond to circumstances flexibly</p>
Communicating	<p>Know that technological devices can be used to communicate and record information</p>	<p>Recognise common uses of technology beyond school.</p>	<p>Understand HOW technological devices can be used to communicate and record information.</p>	<p>Understand that computer networks such as the internet can provide a number of services.</p>	<p>Know how to use the internet to search for information and use other networks for communication.</p>	<p>Know how to use search technologies effectively, knowing how results are selected and ranked.</p> <p>Be critical in evaluating digital content.</p>	<p>Know how to select, use and combine a variety of software on a range of devices to design and create a range of programs, systems and content.</p>

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Data handling	Understand that data can be stored on a device.	Use technology to create and store digital content. Understand that data can be organised and manipulated on a device.	Understand how to use technology to purposefully create, organise, store, manipulate and retrieve digital content.	Know how to download data onto a device.	Know how to transfer data such as pictures from one device to another.	Know how to edit data stored on a device such as editing audio or video using a range of programs such as iMovie.	Know how to alter the program that a file is saved under, for example converting a word document into pdf or a JPEG into a PNG.
E-safety	Know not to give out any information about themselves. Know that care need is needed when using technology.	Know where to go for help and support when having concerns about content or contact on devices.	Use technology respectfully and solidifying knowledge of not sharing personal information and where to go for help and support.	Know how to use technology safely, respectfully and responsibility.	Know how to recognise acceptable and unacceptable behaviour on technological devices.	Know how to identify a range of ways to report concerns about content and contact.	Know how to combine all of what they have been taught to stay safe when using technology.