

## Inglewood Nursery and Infant School - Vertical progression – Computing overview

**There is no statutory ELG currently for computing, however we have the following aims:**

Technology is integrated effectively within early years practice. Children access a range of technologies, both digital and non-digital. They confidently explore a range of technologies through play, allowing opportunities to develop their skills. Children have opportunities to learn across all areas in both formal and informal ways.

Focus	<b>Computer Science</b> Key Stage 1 Aims:		<b>Information Technology</b> Key Stage 1 Aims:		<b>Digital Literacy</b> Key Stage 1 Aims:	
	1. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions 2. Create and debug simple programs 3. Use logical reasoning to predict the behaviour of simple programs		1. Use technology purposefully to create, organise, store, manipulate and retrieve digital content.		1. Recognise common uses of information technology beyond school. 2. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
Nursery- Little Fawns	<ul style="list-style-type: none"> <li>Engages with and explores toys.</li> </ul>	<ul style="list-style-type: none"> <li>Shows skills in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.</li> </ul>	<ul style="list-style-type: none"> <li>Shows an interest in using technology for a purpose, or engages with technology appropriately.</li> </ul>	<ul style="list-style-type: none"> <li>Can roleplay using toys appropriately.</li> </ul>	<ul style="list-style-type: none"> <li>Shows an awareness of handling technology appropriately.</li> <li>Displays an understanding of how toys and simple equipment work.</li> </ul>	<ul style="list-style-type: none"> <li>Can use names of devices such as TV or Ipad.</li> <li>Is beginning to press buttons, lift flaps or pull levers in order to achieve an outcome.</li> </ul>
Nursery- Little Owls	<ul style="list-style-type: none"> <li>Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as tablets.</li> </ul>	<ul style="list-style-type: none"> <li>Can use some simple technological toys appropriately. For example, can take photographs using a camera, or press play on a video or musical device.</li> </ul>	<ul style="list-style-type: none"> <li>Knows that technology can be retrieved from digital devices and the internet.</li> </ul>	<ul style="list-style-type: none"> <li>Can press 'app' buttons on tablet devices or access photographs.</li> <li>Can use remote controlled cars or electronic games purposefully.</li> <li>Plays games using computer software such as Purple Mash (Mini Mash in EYFS).</li> </ul>	<ul style="list-style-type: none"> <li>Knows how to handle equipment safely.</li> <li>Shows awareness that they shouldn't use devices without some supervision.</li> <li>Knows how to operate simple equipment, e.g turn on a CD player, use a remote controlled vehicle, navigate touch-capable technology with support.</li> </ul>	<ul style="list-style-type: none"> <li>Hold technological equipment appropriately.</li> <li>Discusses the use of some technological devices with adults.</li> </ul>
Reception	<ul style="list-style-type: none"> <li>Develops digital literacy skills by being able to access, understand and interact with a range of technologies.</li> <li>Completes a simple program on electronic devices such as a desktop PC or tablet device.</li> </ul>	<ul style="list-style-type: none"> <li>Selects and uses devices for a specific purpose, for example will choose a camera in order to take a photograph.</li> </ul>	<ul style="list-style-type: none"> <li>Knows that technology can be used to create specific content.</li> </ul>	<ul style="list-style-type: none"> <li>Can create content such as a video recording, stories, and/or draw a picture on the screen.</li> <li>Select and use technology for specific purposes.</li> </ul>	<ul style="list-style-type: none"> <li>Knows that a range of technology is used in places such as homes and schools.</li> <li>Begins to give reasons why we need to stay safe online.</li> </ul>	<ul style="list-style-type: none"> <li>Can use the internet with adult supervision and support to find and retrieve information of interest to them.</li> <li>Can access school software using simple name initial / picture password.</li> </ul>

Year One	<ul style="list-style-type: none"> <li>• Understand that an algorithm is a set of instructions used to solve a problem or achieve an objective.</li> <li>• Know that an algorithm written for a computer is called a program.</li> </ul>	<ul style="list-style-type: none"> <li>• Can read code one line at a time, making good attempts to envision the overall effect of the program. For example, interpret where a programmable device such as BeeBot, might end up at the end of a program.</li> <li>• Can work out what is wrong with a simple program and make logical attempts to fix the code.</li> </ul>	<ul style="list-style-type: none"> <li>• Understands that data can be opened, edited and saved.</li> <li>• Can name, save and retrieve their work.</li> <li>• Are able to follow simple instructions in order to access online resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Can name, save and retrieve their work.</li> <li>• Are able to follow simple instructions in order to access online resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand what is meant by technology, and can identify a variety of examples both in and out of school.</li> <li>• Understand the importance of keeping information, such as their usernames and passwords, private.</li> </ul>	<ul style="list-style-type: none"> <li>• Makes distinction between objects that use modern technology and those that do not.</li> <li>• Take ownership of their own work and save this in their own private space.</li> </ul>
Year Two	<ul style="list-style-type: none"> <li>• Can explain that an algorithm is a set of instructions to complete a task.</li> <li>• When designing simple programs, can show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.</li> <li>• Can identify parts of a program that respond to specific events and initiate specific actions. For example, can communicate the cause and effect of a program, explaining what will happen.</li> </ul>	<ul style="list-style-type: none"> <li>• Can create a simple program that achieves a specific purpose, showing an awareness of the need for logical, programmable steps.</li> <li>• Can identify and correct some errors.</li> </ul>	<ul style="list-style-type: none"> <li>• Knows that data can be organised and presented digitally.</li> <li>• Are able to edit more complex digital data such as music compositions.</li> <li>• Are confident when creating, naming, saving and retrieving content.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a range of media in their digital content, including photos, text and sound.</li> <li>• Demonstrate an ability to organise data.</li> </ul>	<ul style="list-style-type: none"> <li>• Make links between technology they see around them and the coding and multimedia work they do in school.</li> <li>• Know the implications of inappropriate online searches.</li> <li>• Begin to understand how things are shared electronically.</li> <li>• Develop an understanding of using email safely.</li> <li>• Know ways of reporting inappropriate behaviours and content.</li> <li>• Identify ways of using the internet to communicate with family and friends.</li> </ul>	<ul style="list-style-type: none"> <li>• Can effectively retrieve relevant, purposeful digital content using a search engine.</li> <li>• Can apply their learning of effective searching beyond the classroom.</li> </ul>