




# Learning Ladders



<p><b>Early Years</b></p>	<p>Computing for the EYFS is centred around play-based, unplugged (no computer) activities that focus on building children’s listening skills, curiosity and creativity and problem solving.</p> <p>Technology in the Early Years can mean:</p> <ul style="list-style-type: none"> <li>• taking a photograph with a camera or tablet</li> <li>• searching for information on the internet</li> <li>• playing games on the interactive whiteboard</li> <li>• exploring an old typewriter or other mechanical toys</li> <li>• using a programmable robot</li> <li>• watching a video clip</li> <li>• listening to music</li> </ul> <p>Allowing children the opportunity to explore technology in this child-led way, means that not only will they develop a familiarity with equipment and vocabulary but they will have a strong start in Key Stage 1 Computing and all that it demands.</p>
<p><b>Year 1</b></p>	<p><b>Areas of Study-</b></p>
 <p><u>Computer Science</u> Algorithms, debugging and programming.</p>	<ul style="list-style-type: none"> <li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</li> <li>• Create and debug simple programs.</li> <li>• Use logical reasoning to predict the behaviour of simple programs.</li> </ul>
<p><u>Information Technology</u></p>	<ul style="list-style-type: none"> <li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</li> </ul>



Create, Organise, store, manipulate and retrieve digital content.



Digital Literacy  
Use of ICT beyond school

- Recognise common uses of information technology beyond school.
- 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.
- To login safely and understand the idea of 'ownership' of their creative work.

Year 2	Areas of Study-
<u>Computer Science</u>	<ul style="list-style-type: none"><li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</li><li>• Create and debug simple programs.</li></ul>



Algorithms, debugging and programming.

- Use logical reasoning to predict the behaviour of simple programs.

### Information Technology



Create, Organise, store, manipulate and retrieve digital content.




- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.




### Digital Literacy



Use of ICT beyond school

- Recognise common uses of information technology beyond school.
- 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.
- To use search engines safely.
- Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward button, hyperlinks)

Year 3/4	Areas of Study-
<p data-bbox="208 60 517 97"><u>Computer Science</u></p>  <p data-bbox="116 252 589 328">Algorithms, debugging and programming</p>	<ul data-bbox="689 105 2033 451" style="list-style-type: none"> <li>• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>• Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</li> <li>• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> <li>• 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.</li> </ul>
<p data-bbox="147 467 577 504"><u>Information Technology</u></p>  <p data-bbox="116 659 546 770">Create, organise, store, manipulate and retrieve digital content</p>	<ul data-bbox="689 512 2033 703" style="list-style-type: none"> <li>• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</li> <li>• 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.</li> </ul>
<p data-bbox="226 786 499 823"><u>Digital Literacy</u></p>  <p data-bbox="116 978 566 1010">Use of ICT beyond school</p>	<ul data-bbox="689 791 2033 1062" style="list-style-type: none"> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.</li> <li>• Using another curriculum area as a starting point, children ask their own questions then use ICT sources to find answers, making use of search engines, an index, menu, hyperlinks as appropriate. Children use the information or resources they have found.</li> <li>• Children talk about using ICT to find information / resources noting any frustrations and showing an emerging understanding of internet safety.</li> </ul>

Year 5/6	Areas of Study-
<p data-bbox="219 60 528 97"><u>Computer Science</u></p>  <p data-bbox="136 252 533 331">Algorithms, debugging and programming</p>	<ul data-bbox="689 108 2101 411" style="list-style-type: none"> <li>• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>• Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</li> <li>• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 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.</li> </ul>
<p data-bbox="152 424 591 461"><u>Information Technology</u></p>  <p data-bbox="136 616 568 730">Create, organise, store, manipulate and retrieve digital content</p>	<ul data-bbox="689 424 2123 603" style="list-style-type: none"> <li>• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</li> <li>• 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.</li> </ul>
<p data-bbox="237 743 510 780"><u>Digital Literacy</u></p>  <p data-bbox="136 935 591 970">Use of ICT beyond school</p>	<ul data-bbox="689 751 2123 1062" style="list-style-type: none"> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact</li> <li>• Independently and with due regard for safety, search the internet using a variety of techniques to find a range of information and resources on a specific topic.</li> <li>• Use appropriate methods to validate information and check for bias and accuracy.</li> <li>• Repurpose and make appropriate use of selected resources for a given audiences, acknowledging material used where appropriate.</li> <li>• Abide by school rules for e-safety.</li> </ul>