




Y1	Programming - Algorithms	Computational Thinking – Algorithm	What this looks like – Example Projects
Greater Depth	<ul style="list-style-type: none"> <li>Can identify a mistake in an <b>algorithm</b>.</li> <li>Can plan, test and successfully run an <b>algorithm</b> on more than one device (e.g. Beebot and an app)</li> </ul>	<ul style="list-style-type: none"> <li>I know that steps of an <u>algorithm</u> are used to solve problems and can identify the rule for other algorithms.</li> </ul>	<p>We need to encourage the children to think “computationally” in everyday contexts as well as teaching the code. Here are some non tech examples.</p> <ul style="list-style-type: none"> <li>How to draw a square</li> <li>Instructions to move your Beebot</li> <li>How to get changed for PE</li> <li>How to build a Lego model</li> <li>How to make a sandwich</li> </ul> <p>In Y1 the focus is for children to understand that algorithm is a set of simple but clear instructions. Children will plan and create their own programs for everyday tasks and then developing this into moving robots like the Beebot.</p> <p><a href="#">BBC what is Coding?</a>  <a href="#">BBC What is an algorithm?</a></p>
Expected	<ul style="list-style-type: none"> <li>Understands an <b>algorithm</b> is a set of precise instructions.</li> <li>Can test a simple <b>algorithm</b> that they planned.</li> </ul>	<ul style="list-style-type: none"> <li>I know that steps of an <u>algorithm</u> are used to solve problems that need to be achieved the same way each time.</li> </ul>	
Working Towards	<ul style="list-style-type: none"> <li>Understands what an <b>algorithm</b> is.</li> <li>Can plan a simple <b>algorithm</b>.</li> </ul>	<ul style="list-style-type: none"> <li>I know that steps of an <u>algorithm</u> are used to solve problems.</li> </ul>	

	Key Vocabulary	Apps	Breakdown
 <p><a href="#">Algorithm</a></p>	<p>In Year 1, children should be taught that an algorithm is a sequence of instructions or a set of rules to get something done. This is usually to solve a problem that requires the same approach each time.</p>	 	<p><a href="#">Bee bot</a> - it’s important with these devices that the children are given a specific aim. Debugging on Bee bot is pressing the reset button.</p> <p><a href="#">CodeSpark Academy</a> and Daisy the Dinosaur is a good place to extend the directional knowledge picked up after using Beebot. Code Spark follows more of a game pattern. It is important to note at what stage each child was up to with each app before handing over to Year 2.</p>

NC KS1 Objectives

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
- Create and debug simple programs.
- Use logical reasoning to predict the behaviour of simple programs.

