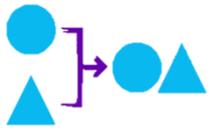


Y2	Programming	Computational Thinking –	What this looks like – Example Projects
Greater Depth	<ul style="list-style-type: none"> Can identify and debug an error in an algorithm. Can design, test and successfully run an algorithm on a number of applications and devices. 	<ul style="list-style-type: none"> Can use <u>Logic</u> to identify and make attempts at debugging their or others algorithm. 	<p>Challenge pupils to create increasingly complex programs such as enacting some of the Beebot app levels, or children could use the Scratch Jnr app to create a program that executes stories and explanations.</p> <p>These could be linked to existing curriculum themes. For example “Poles Apart” - The app has a range of animals and backgrounds and children can draw their own. This could be retelling a story with characters that speak and move.</p> <p>It could include scenes that are linked. For example, a beginning middle and an end.</p> <p>BBC what is Coding? BBC What is an algorithm?</p>
Expected	<ul style="list-style-type: none"> Understands an algorithm is a program used on a range of digital devices. Can plan and create an algorithm to achieve specific goals. 	<ul style="list-style-type: none"> Can use <u>Logic</u> to plan and predict the intended outcome of an algorithm. 	
Working Towards	<ul style="list-style-type: none"> Understands algorithms are used to achieve specific goals. Know what a bug is in a program. 	<ul style="list-style-type: none"> Can use <u>Logic</u> to plan the likely outcome of their algorithm. 	

Key Vocabulary		Apps	Breakdown
 <p><u>Algorithm</u></p>	<p>An algorithm is a sequence of instructions or a set of rules to get something done.</p>		<p>CodeSpark should be continued from Y1 ensuring to expand beyond simple programs. In Y2 the focus is on creating programs for a specific purpose. Along with CodeSpark, Tynker could be used to challenge more able or to assist in transition from Simple Blocks to Scratch and Swift blocks. Space Cadet is a program linked to basic programming needs of KS1.</p> <p>In the summer term children could be applying their knowledge of simple Algorithms and plan and testing these on apps like Scratch Jr or Tynker.</p>
 <p><u>Logic</u></p>	<p>Logical reasoning helps us explain why something happens.</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**.

