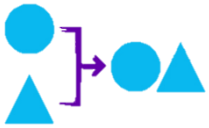
Year 2 Programming Progression 2020 - 2021

Y2	Programming	Computational Thinking -	What this looks like - Example Projects
Greater Depth	• Can identify and **debug** an error in an **algorithm**. • Can design, test and successfully run an **algorithm** on a number of applications and devices.	Can use Logic to identify and make attempts at debugging their or others **algorithm**.	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. 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. It could include scenes that are linked. For example, a beginning middle and an end. BBC what is Coding? BBC What is an algorithm?
Expected	• Understands an **algorithm** is a program used on a range of digital devices. • Can plan and create an **algorithm** to achieve specific goals.	Can use Logic to plan and predict the intended outcome of an **algorithm**.	
Working Towards	• Understands **algorithms** are used to achieve specific goals. • Know what a **bug** is in a program.	Can use Logic to plan the likely outcome of their **algorithm**.	

Key Vocabulary		Apps	Breakdown
 Algorithm	An algorithm is a sequence of instructions or a set of rules to get something done.	 	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

Logic	Logical reasoning helps us explain why something happens.		Simple Blocks to Scratch and Swift blocks. Space Cadet is a program linked to basic programming needs of KSI. 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.

NC KSI 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.