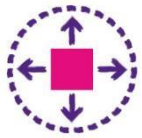
Year 3 Programming Progression 2020 – 2021

Y3	Programming - **Sequence**	Computational Thinking – **Evaluation**	What this looks like – **Example Projects**
GDS	• Read, design, write and debug a **program** to achieve specific goals and to simulate physical systems. • I can plan and run a **sequence** of simple commands to achieve a specific goal.	Can use evaluation to identify and make attempts at improving their Program by ensuring their **sequence** is as effective as possible.	Pupils should be developing a greater understanding of programming. Through experimenting with various approaches should be designing programs that are sequential. These could be linked to topics or books for example "How to Wash a Woolly Mammoth" or "How to Build a Pyramid" etc. Children should understand that in order for this algorithm to be successful the sequence must remain the same each time. Examples could be - an animated retelling of the story using Scratch Jr or Tynker ensuring the instructions are following the correct sequence. BBC What is Sequencing?
EXS	• Read, design, write and debug a **program** to simulate physical systems. • I can plan and run a **sequence** of simple commands.	Can use evaluation to ensure their program follows a precise **sequence** and identify ways of improving their program.	
WTS	• Read, design and write **programs** to achieve specific goals on a range of devices and applications. • I know what a **command** and a **sequence** is.	Can use evaluation to ensure their program follows a simple **sequence**.	

Key Vocabulary		Apps	Breakdown
 Programming	Programming is the process of designing and writing a set of simple instructions (a program) in a language it understands.		Continuing on from Year 2 children should be developing more complex programs using sequence; this can be done using Scratch Jr and Tynker. Children could copy or draw Woolly Mammoths and animate a set of sequential instructions, for washing a Woolly

 Sequence	Sequence based algorithms follow a specific set of instructions e.g. to draw a hexagon in scratch if not in sequence the algorithm would not be successful.	 	Mammoth - this could then be recorded and uploaded to YouTube to give a real audience. Y3's second or summer project could be completed on Tynker to expose children to the format and help aid them in programming apps for Y4 - this could be an animated game or quiz. Children can move from Scratch Jr to Scratch online for individual projects to add extra challenge and to bridge the gap between Y3 to Y4.
 Evaluation	Evaluation is making judgements, where possible in an objective and systematic way. Judging the quality and effectiveness of products, solutions.		

NC KS2 Objectives

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

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