Reception Programming Progression 2020 – 2021

R	Programming - **Algorithms**		Computational Thinking – **Algorithm**
Playing and Exploring – *engagement* – • Move like a programmable robot following instructions e.g. 'up', 'down', 'left' and 'right'. *(Figure 1.)* • Exploring how characters (Red Riding Hood etc) might travel to a desired location using toys. *(Figure 3.)*		GDS	• I can write or record simple algorithms. • I know what an algorithm is in real life. I can spot an error in an algorithm.
Active Learning – *motivation* – • Put instructions into order e.g. practically move elements of a recipe or simple instructions. • Program toys (BeeBot) to move across a grid.		EXS	• I know that algorithms are used to solve problems. • I know that an algorithm is a set of instructions. • I can use the term algorithm.
Creating and thinking critically – *thinking* – • Predict the outcome of a set of instructions. • Matching symbols to simple grids and the directions the trucks will take on the masking tape paths. *(Figure 2.)*		WTS	In practical activities, I can verbally give a set of instructions. With support, I can explain the term algorithm.

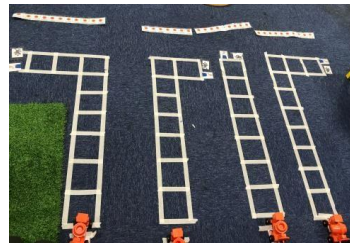| Key Vocabulary		Apps	Breakdown
Algorithm	Children explore how an algorithm is a set of instructions. Usually to get something done or solve a problem. It would be useful to look at real life Algorithms.		Bee bot - it is important with the devices that the children are given a specific aim. Debugging on Bee bot is pressing the reset button. BBC What is Coding? BBC What is an algorithm?

Fig 1.

Fig 2.

Fig 3.