Year 6 Computing

Autumn 1: We Are Toy Makers

Session	National. Curriculum Statement	WALT	Learning Outcomes (Success Criteria)	Resources	Vocabulary
Subject Cultural Capital = Using & Applying computing knowledge to solve problems **Differentiation = please see the differentiation for the EXC EM & SEND (Please see SEND pupils IEPs when planning)** **Minimum expectations to check for understanding during lessons = targeted questioning / mini whiteboards/ peer talk /thumb signs** **Long term memory skill development strategy = LAST, LAST, LAST linked to the WALT** **Literacy & Numeracy skills development = ICT vocabulary bank linked to the WALT & include numeracy skills where they are linked to the WALT in the weekly planning**					
On-Line Safety: Pupils need to think carefully about copyright in sourcing images and other media for their toy prototypes and presentations, or if uploading their own work to the Scratch community. If pupils do participate in the online Scratch community, they should think through how to do so in a safe and responsible manner, and should obtain consent from their parents or carers. If pupils link their programs to hardware, they need to take care to work safely with a range of tools and electronic equipment.					
1	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.	To recap (or learn) about micro:bit and MakeCode	Children can identify inputs and outputs of a micro:bit. Children understand that a micro:bit can be made into a simple step counter.	Laptops/desktops Makecode Scratch	Micro:bit Input Output Edge connector Makecode Accelerometer simulator
2	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	To understand input and output for the micro:bit and some electronic toys	Children understand how electronic toys work. Children can connect a microbit to a Scratch program using Bluetooth	Laptops/desktops Makecode Scratch	Micro:bit Accelerometer Edge connector makecode Bluetooth simulator

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3	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.	To design an interactive toy	Children can design a toy and program it to do something when a particular action is taken.	Laptops/desktops Makecode Scratch	Inputs Outputs Controller LEDs
4	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	To program the micro:bit to act as a controller for a toy	Children can use the micro:bit as a controller for their toy design.	Laptops/desktops Makecode Scratch	Inputs Outputs Micro:bit Bluetooth simulator
5	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	To prepare the soft toy	Children can break their program down into smaller parts. Children can consider how to reprogram, change the battery and keep their toy safe.	Laptops/desktops Makecode Scratch	Interactive Input Output Micro:bit decomposition
6	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	To connect the micro:bit inputs and outputs to the toy	Children can download their code from MakeCode to the micro:bit Children demonstrate their toy.	Laptops/desktops Makecode Scratch	Input Output Micro:bit LEDs