Year 1 Computing

Autumn 1: We Are Treasure Hunters (Solving problems using programmable toys)

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 learn to use simple programmable toys safely and sensibly, as well as showing respect for the work of their peers. Web access is supervised and safe practices are encouraged. Similarly, any filming is done with appropriate consent and assent.					
1. Giving and Following Instructions	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	To practise giving and following instructions and understand that robots need precise instructions to follow.	Children understand how to give and follow instructions. Children understand that a series of instructions is called a program.	Whiteboards & Pens	algorithm instructions robot program
2. Sequences of Instructions to achieve an objective	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	To plan precise sequences of instructions to achieve an objective and understanding in computing this is called an algorithm.	Children learn to test and correct instructions. Children understand that in computing a precise set of instructions is called an algorithm.	BeeBots Whiteboards & Pens	algorithm instructions robot bugs

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3. Experimenting with the Blue-Bot	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	To explore and understand input, program and output in the context of the Blue-Bot.	Children understand that a BeeBot is a computer that moves. All computers have inputs and outputs.	BeeBots Whiteboards & Pens	algorithm instructions robot programming
4. Programming the Blue-Bot	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	To program the Blue-Bot to solve a problem by moving to a particular location.	Children understand that finding and fixing errors is part of programming.	BeeBots Whiteboards & Pens	algorithm instructions robot programming
5. Predicting Outcomes	Use logical reasoning to predict the behaviour of simple programs.	To read a Blue-Bot program and predict logically what will happen.	Children create sequence of instructions for a partner and test them out. Write, test and correct programs.	BeeBots Whiteboards & Pens	algorithm instructions robot predict
6. Debugging instructions	Create and debug simple programs.	To correct sequences of instructions	Children write programs with bugs- partner tests and fixes bugs.	BeeBots Whiteboards & Pens	algorithm instructions robot debug