Learning journey	Computing – computer science	Toy giveaway	Year 4	

Building on prior learning	Theme overview	Preparing for future learning	Vocabulary
Children know how to programme a simple code. In the first unit of year four, the children coded a sprite to move in different directions. Children looked at programming objects to 'wait' to disappear until the sprite on the screen touches them.	In this unit, the children will apply their knowledge of how to use the 'wait' function to start to include count-controlled loops in coded blocks. The 'repeat' block will be introduced and will be used in code.	In the next unit in year 4, the children will continue to use count-controlled loops. They will be introduced to 'forever' loops and will learn the difference between the two types of loop. The children will apply their understanding of both loops and use them in code.	Input/output Sequence Sprite Objects Simple sequence Loop Repeat Count controlled

NC coverage and HWJS skills development	Knowledge organisers
National curriculum coverage Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs **HWJS skills development** Recognise that one algorithm may be better by reading and creating count-controlled loops. Spot patterns in algorithm or code and continue the patterns. Add small non critical adaptations	I can act out and define what a count-controlled loop is. I can recognise a count-controlled loop. I can make small modifications to sprites to change the speed they are travelling. I can plan an effective game and create count-controlled loops for a sprite. I can de-bug with a partner effectively.  Count-Controlled-Loop

Connections / deepening understanding How is the understanding of this area deepened in other areas of the curriculum? What inks are there in the other subjets in the curriculum?	**RADE** Are the rights of the child relevant in this area of study - do they get referred to in the work?	**Assessment** By the end of the unit the children will be able to … Details of the objectives that they will have covered within this unit of work
English – problem solving and communication with a partner. PSHE – SMSC values and critical thinking skills.	Collaboration Teamwork Critical thinking skills	**The pupils will be assessed through** ongoing assessment through teacher observation and pieces of work produced throughout the sessions. **By the end of the unit the children will be able** to understand how costumes change using a count-controlled loop and how they can be modified.

Assessment recording for the unit - checking the level of pitch of the work			
Key skill(s)/ knowledge to be assessed by the end of the unit	**Lower attaining**	**Middle attaining**	**Higher attaining**
I can explain the difference between a simple sequence and a count-controlled loop.	Children can identity sequences and count-controlled loops from pre-programmes pieces of code	The children can code a simple example of each code and describe the differences between them.	The children can code multiple simple sequences and count-controlled loops, explaining the purpose of each and why count controlled loops are more effective.
I can modify a count-controlled loop in a game that has already been created.	Children can make a simple modification that changes one aspect of the game.	Children can modify different blocks, changing the speed of the costume change and describe what is happening.	Children can modify several different blocks, explaining why this will impact on the created game.