Year 4 Computing

Autumn 1: We Are Software Developers (Developing a simple educational game)

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 consider copyright when sourcing images or media for their programs and/or uploading their own work to the Scratch community site. Searching for content for their programs or viewing others' games also offers an opportunity to develop safe search habits. If pupils participate in the Scratch community, they need to think about what information they can share and how to participate positively in an online community, as well as obtaining parental permission					
1. Playing and analysing educational games	Design, write and debug programs that accomplish specific goals.	To play and analyse educational games	Children can describe the algorithm behind some educational games. Children can describe what makes a game a good game. Children plan a game using the storyboard template provided.	Scratch Google Suite for Education Laptops/desktops	Algorithm Program Scratch Input output

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2. Building game prototype	Design, write and debug programs that accomplish specific goals.	To create a game that asks questions and provides feedback	Children can begin to write a program that asks a question and provides feedback on whether the answer is right or wrong. Children can test and debug their programs.	Scratch Google Suite for Education Laptops/desktops	Algorithm Program Scratch Input Output Variable debug
3. Adding in repetition and keeping track	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	To develop the educational game to include repetition	Children add repetition to their games using repeat loop. Children can add ways to keep score in their games.	Scratch Google Suite for Education Laptops/desktops	Repetition Repeat loop Debugging Variables algorithm
4. Working on the interface	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	To improve the interface of the educational game	Children can add graphics to their game- the sprite that asks questions and a backdrop. Children can add sound effects to their game.	Scratch Google Suite for Education Laptops/desktops	Repetition Repeat loop Debugging Variables algorithm
5. Building in progression	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	To build in additional levels or make their game increase in difficulty	Children can suggest ways to build in levels of difficulty to their games.	Scratch Google Suite for Education Laptops/desktops	Repetition Repeat loop Debugging Variables algorithm
6. Testing and refining the educational game	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	To test and improve the educational game, correcting any errors	Children can refine their game and evaluate their work.	Scratch Google Suite for Education Laptops/desktops	Repetition Repeat loop Debugging Variables algorithm