Year 5 Computing

Autumn 1: We Are Game Developers

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 games and uploading their own work to the Scratch community site. Searching for content for their games or viewing others' games also offers an opportunity to develop safe search habits. If the 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. Pupils might also consider some personal implications of playing games, perhaps including violent, costly or addictive computer games.					
1	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	To analyse and plan a game	Children can describe algorithms of games that they play online. Children can identify what makes a game enjoyable Children begin to develop their own game.	Scratch Laptops/desktops	Algorithm programming
2	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	To create a background, sprites and sound effects/music for a game.	Children can create a backdrop, sprites and sound effects for their game.	Scratch Laptops/desktops	Backgrounds Scratch sprite

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3	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. | To create a prototype of a game in Scratch | Children can think through an algorithm and then code it.
Children can control the movement and interaction of characters' sprites. | Scratch
Laptops/desktops | Scratch
Program
Sprites
algorithm |
| 4 | Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. | To debug programs and improve a game | Children will recognise that programs rarely work straight away and that it is necessary to debug (fix) the program.
Children develop strategies to help them identify and fix bugs. | Scratch
Laptops/desktops | Scratch
bug
Debugging
Programs
Code
algorithms |
| 5 | Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. | To test and improve a game | Children test games against criteria identified in session 1.
Children test each other's games and give feedback. | Scratch
Laptops/desktops | Scratch
bug
Debugging
Programs
Code
algorithms |
| 6 | Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

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 write a set of instructions for a game and publishing it online | Children can develop a Scratch game by changing the code, sprites etc.
Children upload games to a shared class account and give developmental feedback to each other. | Scratch
Laptops/desktops | Scratch
bug
Debugging
Programs
Code
algorithms |