Coding Lesson. Year 3. L 4

Program:Scratch

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Learning Objectives:
I can control the movement of a sprite using keyboard instructions.

Skills:
Use 'when pressed' instruction to input commands into the program. Use 'point' to direct the sprite. Use 'if' conditional and 'touching' sensing instruction. Use say

Coding Revision (Analysis): Get the children to analyse a forever loop costume change and movement program.

Lesson: After children have booted up 'Scratch' and created their reset code. Demonstrate the 'if key pressed' pressed instruction. Get the children to create a simple program to move a sprite using different input keys. Ask the children if they can remember how to get a sprite to move around the screen (forever loop with move instruction and turn instruction). See if the children can think of an instruction, used in the reset code, that could allow us to change the direction of the sprite ('point in direction'). Ask them how we could link this to the keyboard. Set the children the task of having two sprites moving around the screen with their direction controlled by two different sets of keyboard buttons. See if they can relate this to video games they might have played. Get them to save their projects with suitable name and title. Show one method of coding to achieve the goal. Demonstrate the if conditional instruction. Role play the idea of an if conditional. Have one child the gatekeeper. Get the children to choose a condition of entrance such as colour of hair, shoes, sweatshirt etc. Have them come up to the gatekeeper and decide what happens (let through or turned away). Show the 'touching' instruction and how you can make it 'touching sprite 2' by clicking arrow. Show the 'say' instruction and ask the children what we could have happen if one sprite touches the other. Show the 'stop all' instruction. Save projects

Challenge:

Write a program to have 2 sprites moving around the screen their direction controlled by different keys on the keyboard. Have one sprite chasing the other and if it catches it it says 'got you' and the game stops. See resources for example.

Plenary: Can you think of other 'if' conditionals you might have in a video game?

Assessment opportunities:
Can the children change the type of input to the programs?