Program: Scratch

Learning Objectives:
I can describe the similarities and differences between 'Scratch' and 'Hopscotch.'
I can use coding blocks to create a program to draw a square.
I can copy a program to reset my sprite.

Skills:
Drag coding blocks to coding screen.
Use "wait" to debug.
Use 'move', 'turn', 'pen down', and 'repeat' instructions.'
Save projects.

Coding Revision (Analysis): Get children to describe how the App 'Hopscotch' works and get them to analyse hopscotch square code from resources.

Lesson: Get the children to boot up Fizzbooks, login and open 'Scratch.' Show a picture of the 'Hopscotch' and 'Scratch' screens side by side (see PowerPoint in resources). Ask the children to identify any similarities or differences between the two pieces of software. Describe the different parts of the 'Scratch' screen. Give them the 'Scratch help screen sheet' from resources. Show the children how to drag code into the coding area in 'Scratch.' Are there any more similarities you can see now? Demonstrate how to create a reset code. (Use the Scratch reset demo program in resources.) Get the children to copy this and explain you would need this for every sprite. Explain that the humped orange instruction blocks are control instructions that are used to start your programs and they can be started in many different ways. Get the children to think about how to create a square in the stage in the 'Scratch' program. What instructions would they need to use? Demonstrate using 'move', 'turn', 'pen down' and 'wait' instructions. Explain that putting a 'wait' function in your code can allow you to see what is happening as the computer works very fast and if things don't look right you might not be able to see what is going wrong. Get children to create code that will draw a square. If successful get them to see if they can change the size of the square.
Show the children how to save their work in the class folder on the server. See 'Saving work in Scratch' sheet in resources.

Challenge:
See if the children can use a repeat function to create the square and then change the colour and size of the lines. After this challenge them to create other regular shapes such as pentagons hexagons etc.

Plenary: Get children to think about how they might make a picture of a house using the instructions they have learned.

Assessment opportunities:
Can the children debug their code to correct errors?