

Question: Can you control a sprite around a maze? Programming B- Events and actions in programs.			
National Curriculum Link: -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 -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information			
International Baccalaureate Learner Profile Link: Communicators. How do we express and present ourselves to others? How can we communicate with others? We can be clear in both written and oral form? Reflective Remaining open to continuous learning. Striving to be accurate and precise. Strive to not be complacent. Balanced. To understand the impact on my mind, body and emotions. Understanding the impact on others.			
Prior Skills: Year 2 To choose a series of words that can be enacted as a sequence. To explain what happens when we change the order of instructions. To choose a series of commands that can be run as a program. To trace a sequence to make a prediction. To test a prediction by running the sequence.	New Skills: Year 3 To explain that programs start because of an input. To explain what a sequence is. To identify that a program includes sequences of commands. To identify that the sequence of a program is a process. To build a sequence of commands. To combine commands in a program.	Future Skills: Year 4 To create graphical objects on a computer screen. To select a shape type to add to a drawing. To select a line type to add to a drawing. To add text to a drawing. To drag out an object on the page. To duplicate an object. To select an object.	

<p>To create and debug a program that I have written.</p> <p>To run a program on a device.</p>	<p>To order commands in a program.</p> <p>To explain that the order of commands can affect a program's output.</p> <p>To identify that different sequences can achieve the same output.</p> <p>To identify that different sequences can achieve different outputs.</p> <p>To create a sequence of commands to produce a given outcome.</p>	<p>To delete an object.</p> <p>To reposition objects.</p> <p>To rotate objects.</p> <p>To resize an object.</p> <p>To alter object proportions.</p> <p>To recolour an object.</p> <p>To select multiple objects.</p> <p>To group objects.</p> <p>To modify multiple objects.</p> <p>To change the layers of an object.</p>
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Knowledge, Skills and Understanding

To create their own sprite in Scratch/ Scratch Jr. about sequencing commands and adding a repeat command in a program.

To refine/ improve a program by using the repeat command.

To create a variable.

To create a program that contains selection, inputs and outputs

Challenge

<p>Resources:</p> <p>Hardware: iPads, Computers</p> <p>Scratch</p> <p>Teach computing page.</p>	<p>Websites or Apps:</p> <p>https://minecraft.makecode.com/courses/csintro/events/unplugged-1</p> <p>Scratch Jnr</p> <p>https://www.youtube.com/watch?v=9uV_Jt-g2mM</p> <p>https://www.tes.com/teaching-resource/scratch-game-packs-6257256</p> <p>Extended Writing Opportunities:</p> <p>To make their own maze for the sprite (on a computer).</p>
<p>Vocabulary:</p> <p>Sprite, event, action, program, duplicating, modifying, pen blocks, bugs,</p>	<p>Numeracy skills:</p> <p>Directional language.</p> <p>Basic counting.</p> <p>Data handling.</p>
<p>Suggested Quality Texts:</p> <p>See selection in library.</p>	<p>WOW Experience:</p> <p>Member of NCCE team to share opportunities with Scratch.</p>

Cross Curricular Links:

DT: design and build a real-life maze and sprite to duplicate actions on computer.