



Block Coding 1: Events and Sequences

How a script starts, and why the order of blocks matters

Scripts, Events and Sequences

In Scratch you build programs by snapping **blocks** together. A stack of snapped-together blocks is a **script**. Each character is a **sprite**, and each sprite has its own scripts.

Every script starts with a **hat block** (rounded top). Hat blocks are **events**: they wait for something to happen, like the green flag being clicked. Then Scratch runs the blocks underneath **from top to bottom**, one at a time. Blocks that run in order like this are a **sequence**.

On the stage, **x** is left/right and **y** is up/down. The center is **x: 0, y: 0**. Positive **x** is to the **right**; positive **y** is **up**.

1 Read the Script

The cat sprite starts at the center of the stage, facing right (direction 90). Read Script A, then answer the questions.

Script A



a. Which block is the **event** that starts this script?

b. What does the cat do **first**, right after it goes to the center?

c. After **move (100) steps** the cat is at **x: 100, y: 0**.

Turning right 90 degrees from facing right makes it face **down**.
Where is the cat when the script ends?

x: _____

y: _____

2 Order Matters

A student swapped two blocks in Script A, so it now runs **turn right (90) degrees** **before** **move (100) steps**. Without changing anything else, would the cat end in the same place? Explain why or why not.



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3 Pick the Event

Match each goal to the hat block that should start the script. Write the letter on the line.

A

when green flag clicked

B

when space key pressed

C

when this sprite clicked

Reset the game when the player starts it: _____

Jump every time the player presses space: _____

Play a sound when a button sprite is clicked: _____

4 Debug It!

Maya wants her sprite to **say "Ready?"**, wait, and then **glide to the right side** of the stage. When she clicks the green flag, the sprite glides away first and says "Ready?" after it arrives.

Maya's script

when green flag clicked

glide 1 secs to x: 200 y: 0

say Ready? for 2 seconds

a. What is the bug?

b. Write the fixed script in order, one block per line.

5 Write Your Own Sequence

Plan a script for a sprite that, when the green flag is clicked, goes to the center, says hello for 2 seconds, moves 80 steps, and then says goodbye. Write one block per line, starting with the hat block. Use the block names from this sheet.
