

Kit's Coding Challenge: Mastering Scratch

Learning objective: To understand the purpose of sequences, loops, and selection in Scratch, and how to debug code to make a sprite move correctly.

Read each question carefully and use your knowledge of the Scratch interface to answer. Remember, Kit the fox loves clean, logical code!

Word bank: Sprite · Algorithm · Loop · Sequence · Debug · Motion · Event

1. Kit wants the sprite to move forward 10 steps, turn right 90 degrees, and repeat this four times to draw a square. Which block category would you find the 'Move 10 steps' and 'Turn right' blocks in? (1 mark)

2. Explain what a 'Loop' (or 'Repeat') block does in your code. Why is it more efficient to use a loop than placing the same blocks one after another? (3 marks)

3. If a sprite is not moving when you click the green flag, what is the first thing you should check in your code? Use the word 'Event' in your answer. (2 marks)

4. You have written a sequence to make a sprite jump, but it jumps too high. What is the process of finding and fixing this error called? (1 mark)

5. Imagine you want your sprite to say 'Hello!' only if the user presses the space bar. Which type of block would you use to check if the key is pressed? (2 marks)

Draw: Draw a flowchart or a sequence of blocks that would make a sprite walk across the screen and say 'Hello' when it reaches the edge.

Extension challenge: Design a small game concept where a character collects items. List three 'Events' that could happen in your game (e.g., 'When green flag clicked').