

Kit's Coding Workshop: Mastering Scratch

Learning objective: To understand and apply the concepts of sequence, repetition (loops), and variables within the Scratch programming environment.

Read each question carefully and use your knowledge of block-based programming to provide the best answer. Refer to the word bank if you need help with technical terms.

Word bank: Algorithm · Sprite · Loop · Variable · Sequence · Broadcast

1. Kit is designing a game where a character moves across the screen. If he wants the character to repeat an action 10 times, which specific control block should he use? (2 marks)

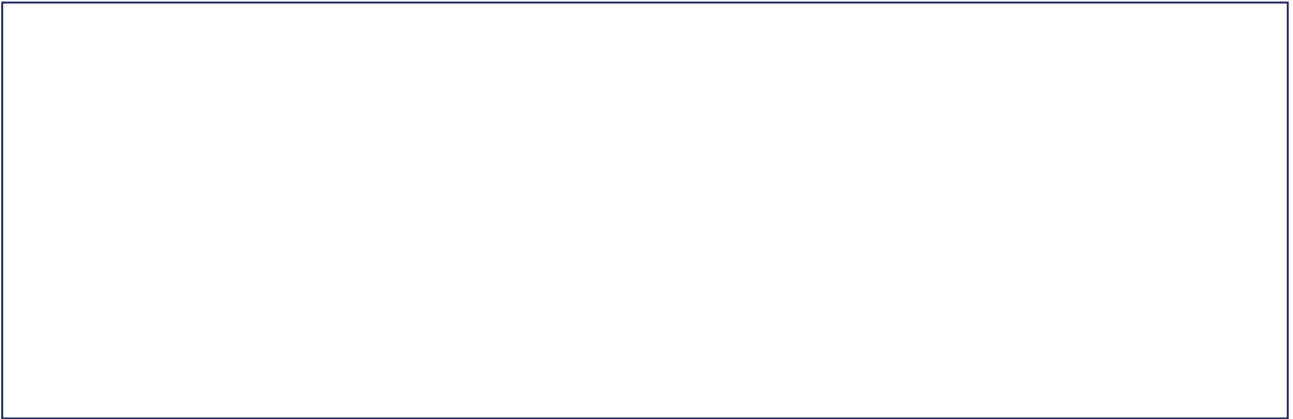
2. Explain what a 'Variable' is in Scratch and give an example of how one might be used to track a player's progress in a game. (3 marks)

3. If a program is not working as expected, Kit says he needs to 'debug' it. What does it mean to debug a sequence of code? (2 marks)

4. In Scratch, what is the difference between a 'Sprite' and a 'Stage'? (2 marks)

5. Design a simple algorithm using the steps: 'When green flag clicked', 'Move 10 steps', and 'Play sound'. Write them in the correct sequence to make a character move and make a noise. (3 marks)

Draw: Draw a storyboard showing a Sprite moving from the left side of the screen to the right, including a small speech bubble where the Sprite says, 'I am a clever coder!'



Extension challenge: Imagine you are building a quiz game. How would you use a 'Variable' to keep count of how many questions the user gets correct? Write down the logic you would use.