Kit’s Clever Coding Adventure

Learning objective: I can explain how to create a simple computer program using clear, step-by-step instructions.

About 15 minutes. Grown-up tip: Ask your child to explain their instructions to you out loud to see if they make sense.

Imagine you are teaching a robot to navigate a maze. A 'program' is just a list of instructions for the computer to follow. For example: 'Step 1: Move forward two squares. Step 2: Turn right.' Use the word bank to help you write your own set of commands.

Kit the fox loves solving puzzles, and today he is programming his new robot, Bot-Bot, to cross the classroom floor.

Word bank: First · Next · After that · Finally · because · so · carefully · then

1. The Goal: What is the main task you want your robot to complete? Start with: My robot needs to... (2 marks)

2. The Instructions: List the steps in order. Use at least two fronted adverbials (e.g., 'Moving forward, the robot...'). (3 marks)

3. The Problem: What happens if the robot hits a wall? How would you 'debug' (fix) the code? Give a reason. (2 marks)

4. Testing: How will you know if your code was successful? Use evidence from your steps. (2 marks)

5. Evaluation: If you could add one new feature to your robot, what would it be and why? (2 marks)

Draw: Draw a map of the path your robot takes, including one obstacle it must avoid.

Extension challenge: Try writing your code in a 'loop'. If your robot moves forward three times, can you write it as: 'Repeat 3 times: Move forward'?

I did it! Name: _____ Date: _____

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