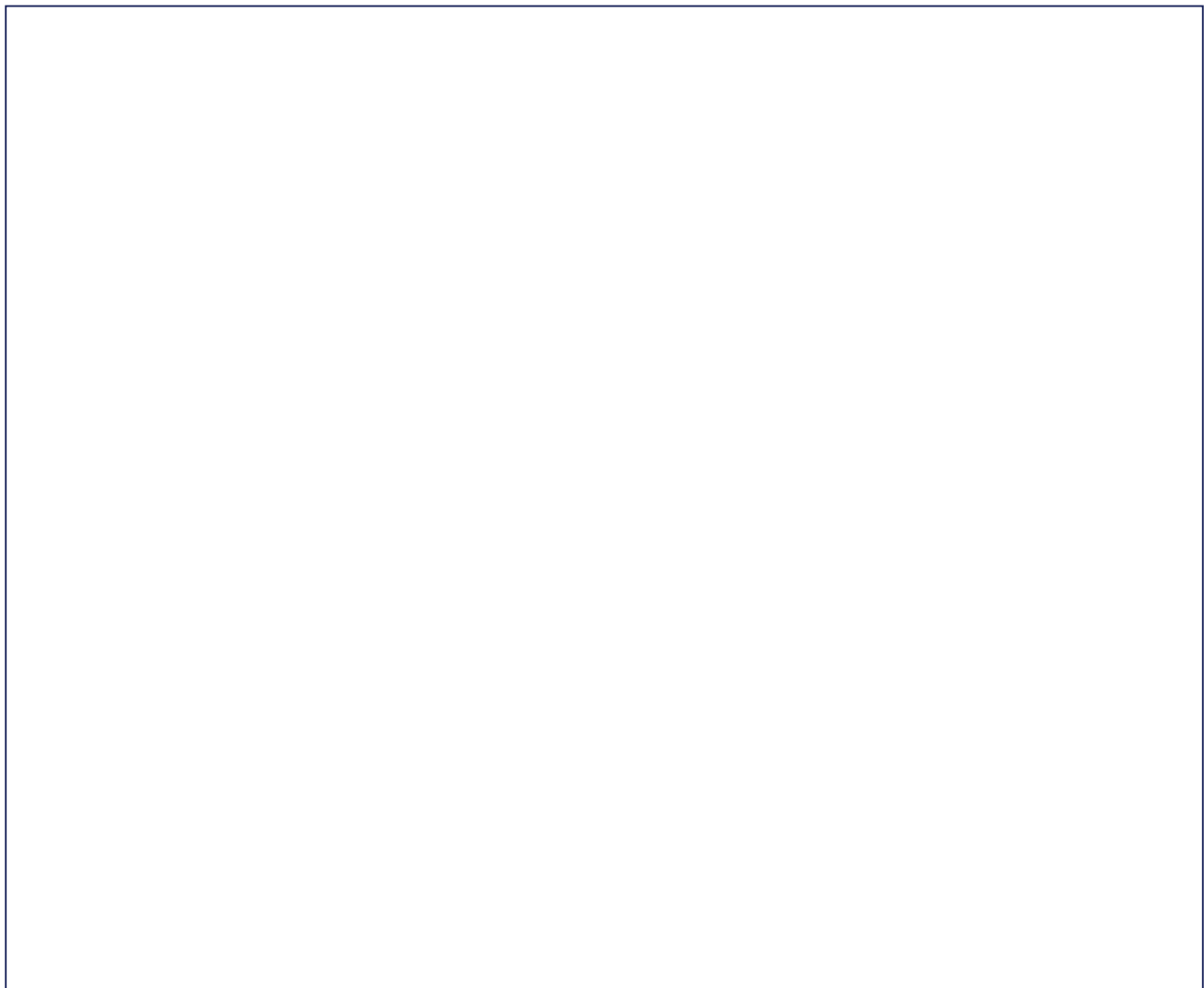


Kit's Code-Cracking Adventure: Mastering Debugging

Learning objective: To understand the process of debugging by identifying and correcting logical errors in an algorithm.

Kit the fox has written a set of instructions for a robot to make a jam sandwich, but there is a 'bug' in the sequence! Follow the steps below to fix the code and draw the correct process.

Draw: In a clean, comic-strip style, draw three panels. Panel 1: Show Kit the fox looking confused at a robot holding a jar of jam with the lid still on. Panel 2: Show a 'magnifying glass' over the robot's instruction sheet, highlighting a step that needs to be crossed out and rewritten. Panel 3: Draw the successful outcome—the robot happily spreading jam on a slice of bread. Use clear, simple lines and include speech bubbles for Kit.



Label words: Algorithm · Bug · Debug · Sequence · Logical Error · Output

Steps:

1. Kit's robot tried to put the lid on the jar before taking it off. Why is this a 'logical error'?
2. List the correct order for making a sandwich: 1. Spread jam, 2. Get bread, 3. Open jar, 4. Close sandwich.
3. If a robot skips a step, is the final output correct? Explain why.
4. Label your drawing with the term used for fixing a mistake in code.
5. Why must an algorithm follow a specific sequence?