

Kit's Code-Cracking Guide to Debugging

Learning objective: To understand how to identify, explain, and fix errors in a sequence of instructions.

Use this writing frame to document your process for fixing a bug in your computer program. Think like Kit the fox—be patient, look for patterns, and check your steps one by one.

When I first ran my program, it did not produce the result I expected because...

Word bank: algorithm · bug · debugging · sequence · logical error · unexpected result · consequently · furthermore · therefore · solution

1. Describe the goal of your program. What was the computer supposed to do? (2 marks)

2. What was the 'bug'? Explain exactly what the computer did instead of what you wanted it to do. (3 marks)

3. How did you test your code to find the location of the error? (2 marks)

4. Explain the change you made to the code to fix the problem. (3 marks)

5. Once you fixed the code, what was the final result? Did the program run correctly this time? (2 marks)

Extension challenge: Imagine a friend has a bug in their code. Write a short 'Troubleshooting Tip' explaining why it is important to check one line of code at a time.