Kit’s Code-Cracking Challenge

1. C) A bug (1 mark)

Working: The passage defines a bug as a mistake in a computer programme.

Award 1 mark for the correct letter.

2. True (1 mark)

Working: The passage states: 'Debugging is finding the bug and fixing it.'

Award 1 mark for the correct answer.

3. False (1 mark)

Working: If the code works perfectly, there are no errors to debug.

Award 1 mark for the correct answer.

4. B) The instruction is wrong (1 mark)

Working: Computers follow instructions exactly; if the action is wrong, the instruction is the source of the error.

Award 1 mark for the correct letter.

5. Algorithm (1 mark)

Working: An algorithm is a precise sequence of steps to complete a task.

Award 1 mark for the correct term.

6. A) Check the code step-by-step (1 mark)

Working: Checking step-by-step allows you to see exactly where the sequence goes wrong.

Award 1 mark for the correct letter.

7. True (1 mark)

Working: Computers are machines that follow the specific code provided by the user.

Award 1 mark for the correct answer.

8. C) The distance is wrong (1 mark)

Working: The character needs to move 10 steps, but the code only provides 5.

Award 1 mark for the correct letter.

9. False (1 mark)

Working: Changing code to fix a bug is called 'debugging', not 'coding'.

Award 1 mark for the correct answer.

10. B) To see if it works as you planned (1 mark)

Working: Testing ensures the output matches the intended goal of the programme.

Award 1 mark for the correct letter.

What a secure answer looks like

A secure answer demonstrates an understanding that computers are literal machines that require precise, logical sequences to function correctly.

If your child is stuck

Ask your child to imagine they are a robot and you are the programmer. If you tell them to 'walk to the door' but don't say 'open it', what happens? This helps them see why specific instructions matter.

Common mistakes to watch for

Children often think that a computer 'knows' what they mean, rather than following the literal code. They may also confuse 'coding' (writing the programme) with 'debugging' (fixing the errors).