

Kit's Code-Cracking Challenge

Learning objective: To understand what debugging is and how to identify and fix errors in a sequence of instructions.

Help Kit the fox fix the glitches! Read each question carefully and circle the best answer. Remember, a good programmer never gives up when they find a bug.

Answer Key: 1.C, 2.True, 3.Bug, 4.B, 5.True, 6.False, 7.Sequence, 8.A, 9.False, 10.True. Debugging is the process of finding and fixing mistakes in computer code. If your code does not work as expected, it is because there is a 'bug' or an error in the instructions.

Word bank: Debug · Algorithm · Bug · Sequence · Error · Predict · Logic

1. **1. What do we call a mistake in a computer program? A) A feature B) A glitch C) A bug* D) A sparkle (1 mark)**
2. **2. True or False: Debugging is the process of finding and fixing errors in code. (1 mark)**
3. **3. If Kit writes an instruction that makes a robot turn left instead of right, what is this error called? (1 word) (1 mark)**
4. **4. Why is it important to test your code? A) To see if it looks pretty B) To check if it works as expected* C) To make the computer faster D) To delete the file (1 mark)**
5. **5. True or False: You should read your code one line at a time to find where the mistake happened. (1 mark)**
6. **6. True or False: Once you find a bug, you should delete the whole program and start again. (1 mark)**
7. **7. What is the specific order of instructions in a program called? (1 word) (1 mark)**
8. **8. Which of these is the best way to debug a program? A) Test it, find the error, fix it, then test again* B) Ignore the error and hope it goes away C) Ask the computer to fix it itself D) Change the colour of the screen (1 mark)**

9. 9. True or False: Computers are very clever and always know what you mean, even if your instructions are wrong. (1 mark)

10. 10. True or False: A logic error happens when the code runs, but it doesn't give the result you wanted. (1 mark)

Draw: Draw a funny 'Bug' that has escaped from a computer screen. Give it antennae that look like tiny lightning bolts and make sure it is holding a broken instruction manual.



Extension challenge: Kit is trying to bake a cake using a set of instructions. He put the flour in, then the eggs, then he turned the oven on, then he cracked the eggs onto the floor! Write down the three steps in the correct order for Kit so he doesn't have a kitchen 'bug'!