

Kit's Code-Cracking Challenge

Learning objective: To understand the process of debugging and identify errors in a logical sequence.

Help Kit the fox fix the computer glitches! Read the questions carefully and use your knowledge of algorithms and debugging to select the correct answers.

Answer Key: 1.C, 2.True, 3.False, 4.B, 5.True, 6.A, 7.Bug, 8.B, 9.False, 10.Debug. (Note: A bug is a mistake in code. Debugging is the process of finding and fixing those mistakes. Always check your sequence first!)

Word bank: algorithm · bug · debug · sequence · syntax · logical · error

- 1. 1. What do we call a mistake in a computer program that stops it from working correctly?
A) A feature, B) A glitch-glam, C) A bug*, D) A patch (1 mark)**

- 2. 2. True or False: Debugging is the process of finding and fixing errors in your code. (1 mark)**

- 3. 3. True or False: If your code doesn't work, you should delete the whole program and start over immediately. (1 mark)**

- 4. 4. Which of these is the best way to debug? A) Guessing randomly, B) Checking the sequence of your instructions step-by-step*, C) Turning the computer off, D) Asking a friend to write it for you (1 mark)**

- 5. 5. True or False: A logical error means the computer does exactly what you told it to do, even if it wasn't what you meant for it to do. (1 mark)**

- 6. 6. When Kit writes an algorithm, what is he creating? A) A set of instructions to complete a task*, B) A picture of a fox, C) A computer virus, D) A type of hardware (1 mark)**

- 7. 7. What is the missing word? A '---' is a problem in the code that causes an unexpected result. (1 mark)**

- 8. 8. Why is it important to test code frequently? A) To show off, B) To find errors early before they get complicated*, C) To waste time, D) To make the file size larger (1 mark)**

- 9. 9. True or False: All computer errors are caused by the computer being broken. (1 mark)**

10. 10. What is the term for the action of removing a bug from your code? (1 mark)

Draw: Draw a picture of Kit the fox wearing a detective hat and using a magnifying glass to look at a piece of paper covered in messy computer code.



Extension challenge: Imagine you are building a robot to make a jam sandwich. Write a list of 5 steps for your algorithm. Then, purposefully swap two steps to create a 'bug'. Ask a partner to debug your algorithm by putting the steps back in the correct order.