

Kit's Guide to the Logic of Coding

Think like a fox, code like a pro: Sequence your way to success!

- **What is an algorithm?** An algorithm is a precise set of instructions or a step-by-step procedure designed to perform a specific task or solve a problem.
- **Why is the order of instructions important?** In a sequence, the computer executes commands in the exact order written. Changing the sequence can lead to unexpected results or errors.
- **What is a loop?** A loop is a programming structure that allows a sequence of instructions to be repeated multiple times, which makes code more efficient.
- **How do we fix errors?** Debugging is the systematic process of identifying, analysing, and removing errors from computer code to ensure it functions as intended.
- **What is a variable?** A variable acts like a labelled container in a computer's memory that stores information or data which can be changed while the program is running.

Did you know? Did you know that the word 'bug' in computing was popularised by Grace Hopper in 1947? She found a literal moth trapped inside a computer relay, which was causing the machine to malfunction. Ever since then, fixing errors in code has been known as 'debugging'!

Key vocabulary: Algorithm · Sequence · Debugging · Variable · Loop · Syntax · Input