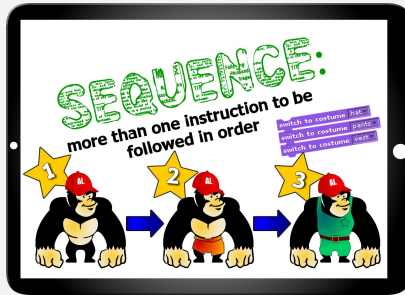


Sequence

A sequence is a set of actions or events that must be carried out in the same order every time. Along with repetition it is one of the first basic logical structures used by algorithms and programming.



Repetition

Repetition refers to sections of code or instructions that are repeated. There are different types of loop. The most basic is where a set of instructions is repeated a set number of times. Another type of loop repeats continuously until an escape clause is met. Repetition can make computers and devices powerful, as they can do the same task over and over, with the same results each time.



Errors and bugs

Debugging is the art of fixing or correcting algorithms or programming code. All computer scientists and programmers make mistakes as a natural part of the creative process.

If your program does not run as expected, ask why? Which part of your program did not run? Check through carefully to ensure your code is written correctly, and is in the correct sequence.



Vocabulary

| | | | | | |
|----------|------------|------------------|-----------|--------------|-----------|
| Sequence | Repetition | Loops | Debugging | Algorithms | Procedure |
| Testing | Sensor | Logical thinking | Commands | Instructions | Problem |

Algorithms

A precise step by step guide to achieving a specific outcome. We all use algorithms all the time but often don't recognise them as such. The order we dress and wash could be described as a getting up algorithm. Posting a letter, dance steps, making a sandwich or preparing a cup of tea are other common algorithms. In fact we all use algorithms every day of our lives. The important task for budding computer scientists is to break the steps of any algorithm up into the smallest possible steps that could be repeated by someone else or a computer.

