

Computing—Jargon Buster



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.



Logical Reasoning

Logical reasoning is the systematic application of rules to problem solving and task completion. These rules could be mathematical, logical, programming, grammatical, engineering, scientific, story construction in fact any body of rules based around a logical system.

KS1: use logical reasoning to predict the behaviour of simple programs.

KS2: use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.



Decomposing

Decomposing sometimes called factoring is breaking a problem into smaller manageable chunks that can be solved separately. For junior computer scientists this might be analysing someone else's program to determine the different problems that they have had to solve to complete the whole or it might involve breaking their own programming project into manageable chunks that they are able to create piece by piece.



Repetition (loop)

Repetition refers to sections of code or algorithmic instructions that are repeated.

Input

Adding data into a program or computer system. A user could input information to steer a sprite or type an answer using a keyboard or mouse.



Output

Output is information provided by a program specifically for a user to perceive. It might be text on a screen, a beep through a speaker or a rumble on a hand held controller.



Programming

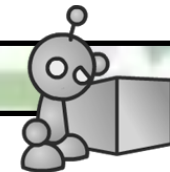
All **working** programs are also algorithms.

Programming has been made a lot easier with the use of programmes such as 'Scratch' or 'Scratch Jr' in which blocks are used to create the program.



Debugging

Debugging is the art of fixing or correcting algorithms or programming code. Ultimately in all areas of learning we want pupils to become independent and to find solutions to errors themselves. Computer Science is a really good area to promote this type of learning.



Sequence

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

Variables

Variables are programming structures that can change or be changed.

