

Prior learning: children will have extended their understanding of programming by using programmable hardware like Beebots and micro:bits.

Programming: how can I use technology to accomplish a task?

Key resources

scratch.mit.edu



Laptop

Vocabulary

Variable

A value that can be changed. Could be degree of a turn, amount of steps forward, volume of noise, colour, amount of repetitions.

Test

Activating the algorithm, then observing the processes to make sure the desired output is reached.

Did the computer display the correct information?
Did the computer make noises when it was supposed to? Did the computer do nothing?

Algorithm

A list of instructions that a computer follows. Each thing a computer does is completed by following an algorithm that can't be interrupted.

Abstraction

Working with the most basic parts of a programme to make it easier to understand.

Levels of abstraction

Breaking the parts of a programme down to different levels and purposes to work specific things

- Task — what is needed
- Design — what it should do
- Code — how it is done
- Running the code — what it does

Debug

Testing and observing a sequence, comparing it to the intended outcome and solving any problems