



Algorithms and Decomposition

To understand and recognise algorithms as sequences of precise instructions.

To understand and recognise decomposition as breaking something down into smaller parts.

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Can respond to instructions involving a two-part sequence.	Can order a sequence of events.	Crazy Character Can follow an algorithm precisely.	Can create an algorithm which is precise and in the correct order.	Can begin use nesting in an algorithm.	Can break down a problem, sequence of moves into smaller parts.	Can decompose a program by designing, writing and presenting a program.	Can analyse and review games (text adventures).
Can respond to positional language.	Crazy Character Can explain that an algorithm is a set of detailed steps to make something happen or work something out.	Can begin to debug a given code, identifying the bug and correcting it.	Can use repetition in a sequence of instructions.	Can recognise patterns in algorithms.	Can recognise which parts of a program need fixing first and can work systematically towards an end goal.	Can design, create and evaluate their own games.	Can use if/else statements and repetition in conjunction to code a text adventure.
Can order a sequence of events.	Can follow an algorithm precisely.	Can create an algorithm which is precise and in the correct order.	Can begin use nesting in an algorithm.	Can break down a problem/sequence of moves into smaller parts.	Can decompose a program by designing, writing and presenting a program.	Can analyse and review games, sharing what makes them good/bad.	Can sequence, instruct, and make logical attempts to debug when editing their work.