

### What should I already know?

- Plan the solution to a problem by decomposing into smaller parts e.g. with a flow diagram, storyboard or other plan
- Investigate how algorithms work and identify the purpose of the different parts of an algorithm
- Make programs which use sequences, repetition and inputs and outputs when necessary.

### Computing skills:

- Plan efficient solutions to problems that include controlling or simulating physical systems, using decomposition to solve the problem.
- Make programs using more complex algorithms, selecting when to use sequences, selection, (if, then), repetition and a range of inputs and outputs.
- Investigate how algorithms work on different platforms, by comparing one block-based code language to another
- Improve code by systematically testing and debugging it, with an understanding of logic and syntax bugs.

### Key Vocabulary and Definitions:

Algorithm	A process or a set of rules to be followed.
Complex	To make something harder or more challenging.
Decompose	Breaking down of a problem into smaller steps.
Efficient	To achieve something in less steps.
Programme	A series of instructions to control the operation of a computer.
Solution	The solving of a problem.
Systematically	To do something in an order.

### Teaching Sequence

1. To identify a simple algorithm
2. To investigate and explore an algorithm using 2-code.
3. To investigate using more complex algorithms using 2- code (2 lessons).
4. To identify the steps on how to decompose an algorithm.
5. To decompose an algorithm.
6. To compare different algorithms using different programmes.

