Knowledge Organiser - Computational Thinking

Key Terms & Definitions

1	Algorithm	A step-by-step procedure or set of instructions for solving a problem or accomplishing a task.
2	Abstraction	The process of simplifying complex systems or problems by focusing on the essential details while ignoring irrelevant information.
3	Pattern Recognition	The ability to identify similarities or recurring structures within data, problems, or systems.
4	Decomposition	Breaking down a complex problem or system into smaller, more manageable parts.
5	Iteration	The process of repeating a sequence of steps or actions multiple times, typically with slight variations, to achieve a desired outcome.
6	Data Representation	The process of organizing, storing, and presenting data in a structured format.
7	Debugging	The process of identifying and fixing errors, defects, or bugs in a computer program, algorithm, or system.
8	Modeling	Making simplified representations of real-world situations or systems to understand them better.
9	Optimisation	Making something as good as it can be, like making a program faster or using fewer resources.
10	Recursion	Solving a problem by breaking it down into smaller versions of the same problem.
11	Sequence	Putting steps in the right order to solve a problem or complete a task.
12	Loop	Repeating a set of instructions multiple times until a certain condition is met.
13	Variable	A placeholder for a value that can change in a program or algorithm.
14	Input	Data that is entered into a program or system.
15	Output	The result or response produced by a program or system.