

What Prior Knowledge should students have?

- Creating simple algorithms using programmable toys.
- Debugging simple faulty directional algorithms

What Skills will students learn (Disciplinary Knowledge)

- Evaluate a set of algorithms written in Scratch to explore how a game works.
- Writing instructions for computers to follow to solve a specified problem or carry out a task.
- Identifying and solving problems using visual coding languages.

What key knowledge will be taught (Substantive Knowledge)

- Algorithms are a set of instructions that computers follow to complete tasks.
- Programming involves the process of writing instructions for computers to follow.
- Conditional programming statements define different algorithms to be followed in certain pre-defined situations or conditions.
- Identify patterns in code and use the loop command to write neat, tidy code.

Online Safety

- The children learn about the risks of cyberbullying, online predators, and sharing personal information online.
- Children are reminded about how to report inappropriate content and how to keep themselves safe online.

Key Vocabulary
Definition

algorithm	A set of instructions that computers follow to complete tasks.
variable	A placeholder for a value that can change.
loop	A section of code that repeats itself until a certain condition is met.
conditional statement	A statement that tells the computer to do something different depending on whether a certain condition is met.
debugging	The process of finding and fixing errors in computer programs.