What should I already know?

* Plan solutions to a problem by decomposing into smaller parts
* To be able to investigate how algorithms work and identify the purpose of different parts within an algorithm.

Key Vocabulary and Definitions:

|  |  |
| --- | --- |
| Algorithm | A set of instructions that we complete in order to achieve a task.  |
| Coding | Putting information and commands into a program. |
| Debug | Checking the code in a computer program to ensure it works. |
| Input | Information that goes into the computer. |
| Output | Information that comes out of the computer. |
| Program | A collection of instructions or algorithms designed to simplify a process. |
| Repetition | When a part of a program repeats itself. |
| Sequence | The order something is completed. |
| Variable | A piece of information that we would like to keep the same, change or measure. |

Computing Skills:

* Plan solutions to problems including controlling or simulating physical systems.
* Make programs using more complex algorithms. Selecting when to use sequences, selection, (if, then), repetition and a range of input and outputs.
* Investigate how algorithms work on different platforms
* Improve code by systematically testing and debugging.

Teaching Sequence

1. To create a program with an object that repeats actions indefinitely
2. To introduce If statements to allow selections in a program
3. To understand what a variable is in programming
4. To use coding skills creatively in my own program to control a physical system

Blooms Taxonomy – Specific Verbs to Use in Lesson Aims

Knowledge: Describe, find, identify, list, locate, name, recognise, retrieve Comprehension: Classify, compare, explain, infer, interpret, paraphrase, summarise Application: Carry out, implement, use Analysis: Deconstruct, Organise, outline, structure Synthesis: Construct, design, devise, invent, make, plan, produce, Evaluation: Appraise, assess, choose,

Key Knowledge

