# Coding

## Curriculum links:

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions

- Create and debug simple programs.

- Use logical reasoning to predict the behaviour of simple programs

## Key Knowledge:

- Understand that an algorithm is a set simple instructions.

- Understand how to program movements.

- Use an output for audio or text.

- Read code carefully to find errors in a program.

- Use logical reasoning to correct the errors (debugging).

- Program inputs to touch or click objects.

- Use selections and conditions (if statements).

## Possible programs/ websites:

- iLearn2

- Scratch Jr

## We should already know:

- Direction arrows can move an on screen object.

- A sequence is simple instructions to make something work.

- Finding an error in code is called debugging.

## Key Vocabulary:

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|---|---|
| Algorithm | A step-by-step set of instructions that solves a problem or accomplishes a task. |
| Code | Line of instructions or commands written in a programming language. |
| Debugging | The process of finding and fixing errors or mistakes in a computer problem. |
| Event | An action that triggers a response or behaviour in a computer program. |
| Input | Data provided to a computer program for processing. |
| Loop | A programming construct that repeats a set of instructions until a certain condition is met. |
| Output | The result or response generated by a computer program. |
| Sequence | An order of steps or actions in a program. |
| Sprite | A graphic object or character that can be oved and controlled in a computer program. |
| Repeat | Executing the same instruction multiple times. |
| Variable | A placeholder for a value that can change in a program. |