

## Key words and prior learning from Year 4 Scratch Programming from Algorithm to Code

**Scratch** – block-based programming language by MIT

**Count-controlled loop** - this is used in a program when we need to repeat something a number of times

**Input** – this is an event that triggers an action/code block

**Costumes** – the way a sprite looks – these can be used to show movement

**Broadcast** – an input that can be used to trigger events

### Who uses skills like these?



- Mobile app developers
- Computer game developers
- Programmers who create safety features for systems e.g. fairground rides, carpark barriers

### Key Learning

### Self-Assessment

	Self-Assessment		
	WT	A	WA
I understand what an input is			
I can move a sprite up, down, left and right using different inputs such as keyboard and mouse			
I can change the look of a sprite, through code, to switch between costumes			
I can use 'point in the direction of' block to improve the appearance of the sprite before it moves left or right			
I understand the need for a continuous loop in programming			
I understand that selection in programming uses if then statements			

### New key words we will use in Year 4 On the Move with Programming

**Quadrant x and y axis** – x axis is the horizontal line and the y axis is the vertical line which divide the plane into four sections called quadrants which provide coordinates

**Set point** – a script that will command a sprite to reset its position on the stage or to reset a variable if a count is used to display a score or lives lost in a game

**Continuous loop** – controls a program to run the same instruction continuously until it is interrupted

**Selection/condition** – where a section of code is run only if a condition is met. In programming, there are occasions when a decision needs to be made. Selection is the process of making a decision. The result of the decision determines which path the program will take next

**If..then..Statement** – used in programming as part of the selection code to trigger a specific path within the program depending upon a decision being made. IF Condition A is True, THEN carry out Action A

**Decomposition** – breaking down a complex problem or system into smaller parts that are more manageable and easier to understand. The smaller parts can then be examined and solved, or designed individually, as they are simpler to work with