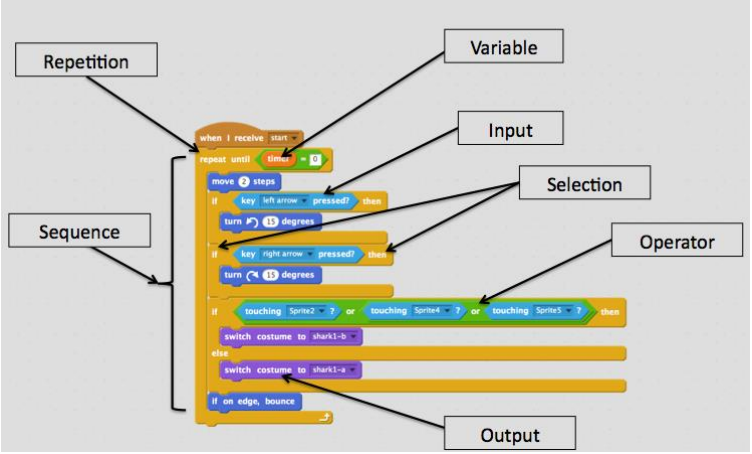
Coding



Block	Meaning
when clicked	This will start our game running. When the green flag is clicked all connected blocks will be run in order
forever	This creates a loop. Code inside is run over and over until the game is quit
if then	This is an if block. It checks whether something is true and if so, the code inside it is run
set deaths to 0 change deaths by 1	These blocks allow us to change the value of a variable with the name deaths
touching Enemy ?	This block goes inside an if block and allows us to check if the player has touched an enemy
key right arrow pressed?	This block goes inside an if block and allows us to check whether a key has been pressed
change x by 10	This block allows us to move our character right or left (on the x axis)

Key vocabulary	Definition
Code	Computer language used to tell a computer what to do. Scratch is an example. Roblox uses Lua. Minecraft uses Java. Many games use C++
Algorithm	A sequence of instructions followed to complete a task.
Programme	A collection of algorithms designed to simplify a process. Such as a word processor.
Decomposition	Breaking code/a programme down into smaller chunks.
Input	Something done, possibly by a user e.g. pressing something or moving something.
Output	Something created or given out e.g. a light flashing, a sound, a character jumping.
Bug	An coding error created by the programmer.
Debug	To find and correct a bug.
Variable	A piece of information that is stored, but can be changed. Such as health or score.
Computational Logic	Allows a programme to make a sensible decision.
Selection	Code only runs if a condition is met.
Condition	Use ‘if’, ‘then’ and ‘else’ to make decisions. (if, then, wait)
Repetition	Repeating something a certain number of times. (repeat)
Loops	Allow code to repeat continuously. (forever)
Collision Detection	Checking whether an object is near/touching another object. (touching)

Key Knowledge and Learning:

Use repetition in a program.
Use selection in a program.
Use variables in a program.
Make letters carry out certain behaviours when clicked.
Create a controllable bee character in a game that gets points for flying into flowers.
Add collision detection to a maze game to create a challenge in a game.
Consider how levels in a game could get progressively harder.
Think about how programming relates to control systems in the real world e.g. traffic lights.
Accept that there are often different ways to solve the same problem or task.
Design and create own program using decomposition and take into account the purpose and need.
Understand the need to be exact or else the algorithm won’t work as expected.