

# Year 5 & 6 Knowledge Organiser - Computer Science

Python



Python is a computer programming language.  
It uses written code instead of block code

## Vocabulary

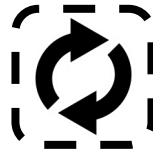
Instruction  
Program  
Rule  
Design  
Run/Simulation  
Code  
Action  
Execute  
Program  
Algorithm  
Series  
Value  
Debug  
Output /Input  
Sprite/ Object  
Horizontal/Vertical/Diagonal  
Information  
Repetition / Loop  
Simulation  
Logical Reasoning  
Accelerate/ Decelerate  
Conditional Event  
If Statement  
Speed  
Angle

## Coding



Children will learn how to use code to complete an action.

Code is a language that the computer understands. The computer will follow the instructions (algorithm) that is inputted to the computer. The output will show if the code has worked.



## Repetition / Loop

A repetition or loop tells the program to run a code a set number of times. Instead of writing the code several times you can write one line and set the **algorithm** to repeat.

## If Statements

If t statements **are conditionals**. A conditional is an action that occurs if something specific happens. If statements are used in



## Inputs

In more advanced coding, the algorithm can be set to change the speed, location and the movement of an Object or Sprite.

## Debug

Debugging is when you find a problem in the code that has been written and repair it.



To spot the mistake you have to go through each step

## Logical Reasoning

Logical reasoning is applying rules to a problem. When coding logical reasoning is used to predict what the **algorithm** will do when it is run. The code is run to simulate the event and test the algorithm



## Sprite or Object



A SPRITE is the character children learn to code when using the program Scratch or Espresso Coding. It uses code to create an output for the character actions.