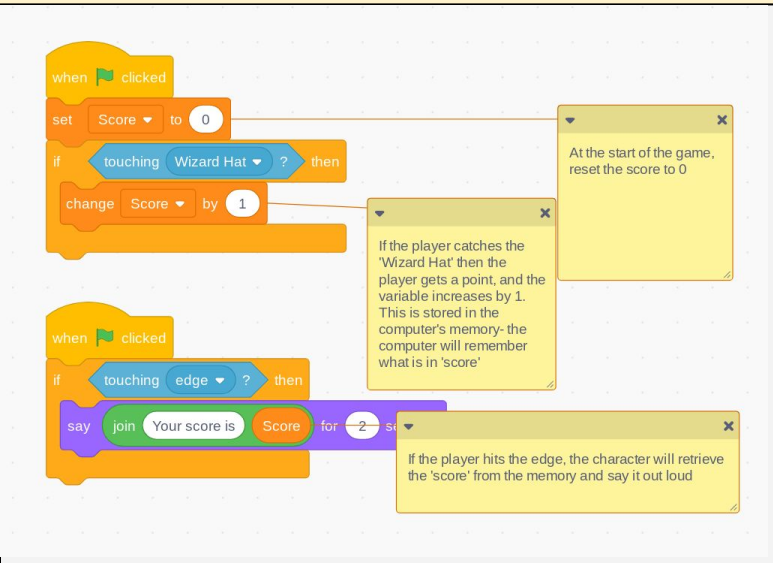
Computing Knowledge Organiser- Year 5/6- Programming



Variables are an important part of computing. A variable is something that can be changed, and is stored in the computer's' memory.

Input – data provided to a computer system, such as via a keyboard, mouse, microphone, camera or physical sensors. Information which is received by the computer from a keyboard, mouse or sensor e.g. pressing the left mouse button or space bar creates an input.

Output – the information produced by a computer system for its user, typically on a screen, through speakers or on a printer, but possibly though the control of motors in physical systems. Also an action performed by the computer e.g. switching on a light, moving a turtle or sprite across the

Circle input in red and output in green

An algorithm is a sequence of instructions or a set of rules that are followed to complete a task. This task can be anything, so long as you can give clear instructions for it.

Vocabulary

Block	Command	Logical Reasoning	Repetition	Variables	
Script	Sprite	Input	Output	Algorithm	Sensor

If you set up two computers in the same way, give them the same instructions (the program) and the same input, you can pretty much guarantee the same output.
Computers don't make things up as they go along or work differently depending on how they happen to be feeling at the time. This means that they are predictable.
Because of this we can use logical reasoning to work out exactly what a program or computer system will do.

Remember- read through all of your code and use logical reasoning to predict what will happen. Then test. Did it do what you thought?

Links:
Logical reasoning
Computational logic
Variables
Scratch