

Python

Knowledge Organiser

Programming basics

1	Algorithm	sequence of steps taken to complete a task
2	Storing data	Input data as a variable or a constant and store it.
3	Processing	Programs manipulate data with logical processes
4	Printing Data	Data can be output using the print statement.

Programming Constructs

1	Sequence	A set of logical steps carried out in order.
2	Selection	where a decision must be made in programming using IF statements.
3	Count controlled Iteration	repeatedly executes a section of code a fixed number of times
4	Condition controlled iteration	repeatedly executes a section of code until a condition is met - or no longer met

Data Types

1	Integer	An integer is a whole number (not a fraction) it is positive, negative, or zero.
2	Real/Float	is written with a decimal point dividing the integer and fractional parts.
3	Boolean	has two possible values: true or false (yes or no)
4	Character	any letter, number or symbol on a computer.
5	String	a sequence of characters, a constant or a variable.

Program Coding

1	Comment	annotation in the code of a computer program
2	Indentation	denotes code within the loop that is repeated.
3	Nesting	a programming construct is included within another.
4	Maths operators	are: +, -, /, *. (plus, minus, division, multiplication)

Key Vocabulary

1	Algorithm	is a sequence of steps that can be followed to complete a task
2	Sequence	A set of logical steps carried out in order.
3	Selection	where a decision must be made in programming using IF statements.
4	Iteration	repeatedly executes a section of code
5	Variable	is a storage location paired with a name, which contains a value.
6	Constant	a value that cannot be altered by the program during normal execution
7	Data types	an attribute of data which tells the computer how the programmer intends to use the data
8	Comment	annotation in the code of a computer program