

# Year 8 Autumn 1 Computing: Python

A) Key knowledge		B) Key knowledge		C) Key knowledge		D) Literacy
<b>Variable:</b>	A variable points to a value	<b>Sequence</b>	The order of tasks in an algorithm must follow a correct sequence, or else the algorithm might have a logic error	<b>Integer</b>	This is a whole number, typically stored in a variable	<p><b>'Explain how any program you have written make use of ITERATION' [8]</b></p> <p><b>Note: describe four ways you have used iteration (i.e. looping – e.g. the forever or repeat controls) in your programs.</b></p> <p><b>To describe means write 2 sentences about each one – so in total, write 8 sentences.</b></p>
<b>A variable can contain:</b>	Data – e.g. integers, decimal numbers, strings and Boolean values	<b>Selection</b>	The order of tasks in an algorithm may branch in different directions depending on conditions – typically in an IF statement	<b>String</b>	This is a piece of text, typically stored in a variable	
<b>The input command:</b>	This can assign text typed from the keyboard to a variable	<b>Iteration 1</b>	Tasks in an algorithm may repeat while a condition is true – typically in a WHILE loop	<b>Float</b>	This is a decimal number, typically stored in a variable	
<b>Variable names:</b>	Variables can be called anything you like – with some exceptions	<b>Iteration 2</b>	Tasks in an algorithm may repeat for a specified number of times – typically in a FOR loop	<b>Boolean</b>	This is a True/False value, typically stored in a variable	
<b>Exception s:</b>	It must start with a letter and not a number or a symbol; it cannot contain spaces; it must not be a Python word such as print, input, list etc.	<b>Iteration 3</b>	In a FOR loop, it is possible to specify the start point, end point and step value	<b>Character</b>	This is a single piece of text, e.g. 'a', 'z', '?', '7', typically stored in a variable	
<b>Homework:</b> Look/cover/write and self-mark the information from Section A		<b>Homework:</b> Look/cover/write and self-mark the information from Section B		<b>Homework:</b> Look/cover/write and self-mark the information from Section C		<b>Homework:</b> Literacy task