

Topics in this cycle: Python	Taught: Spring 2	Year Group: 9
Key knowledge/concepts to be learnt ('Tell me about....')		Websites/blogs/YouTube links and further reading to deepen and consolidate learning
<ul style="list-style-type: none"> • What is a variable in Python? Identify variable within different programs. Describe the use of a variable within a program. Create a program with at least one variable. • How do I input data into a Python program? Describe the different types of arithmetic operators we can use in Python. Explain why the input function is important in programming. Create a program using the input function to input data into a program. • What are the different data types we use in Python programming? Identify different data types within a program. Explain what type of data a data type can hold. Create a program using different data types. • What is a conditional statement? Identify conditional statements within a program. Explain why and when we would use a conditional statement within a program. Create a program using a conditional statement. • Why do we use comments in Python programming? Identify a comment within a program. Explain why comments are useful in Python programming. Create a program using comments. • How do I use iteration in python programming? Identify iteration within a Python program. Explain why we use iteration within a Python program. Create a program using iteration. 		Notes/Information Variables Variables W3Schools Inputting Data Inputting Data W3Schools Data Types Data Types W3Schools Conditional Statements If...Else W3Schools Comments Comments W3Schools Iteration For Loops W3Schools While Loops W3Schools

Home-School Learning Collaboration – Computing

Key Vocabulary and Definitions To Be Learn		What Will The Assessment Look Like?
Variable	Reserved memory locations used to store values with n a Python Program	<p>Extended writing – The uses of iteration, variables and selection within a program.</p> <p>End of Unit test: 35 minutes/25 marks</p> <ul style="list-style-type: none"> • Short answer questions • Extended writing • 3 marks for SPAG
Input	Data that is entered into or received by a computer or program.	
Data	Information such as facts and numbers used to analyse something or make decisions.	
Data Type	a category that specifies which type of value a variable has for example numbers, text, Boolean.	
Program	The creation of instructions for a computer to follow (code) in a language that computers can understand	
Boolean	a binary variable that can have one of two possible values, 0 (false) or 1 (true).	<p>Family Learning Opportunities</p> <p>Watch the following tutorial and try to devise your own programs that enable the user to enter their name and favourite foods. Ask your family members to input their data to check if it works. Python for beginners - Learn Binary in 1 hour! YouTube Programming with Mosh</p> <p>Work through the different levels with your family in this Python Programming game. https://py.checkio.org/</p> <p>Devise a quiz on the different programming skills and test your family.</p>
Conditional	used to describe something (such as an agreement) that will happen only if something else also happens.	
Iteration	is when the same procedure is repeated multiple times.	
Selection	a programming construct where a section of code is run only if a condition is met.	
String	a sequence of characters used to represent text.	
Integer	a whole number (not a fractional number) that can be positive, negative, or zero	
Float	The name given to a value that is a decimal number.	
Casting	changing the data type of a piece of data from one type to another	