Python for beginners - suitable for year 7 to 9

Each lesson will be **1 hour.** There will be a demonstration of programming. Every lesson will have coding tasks for students to work on.

Lesson 1 - Introduction to Python. Looking at online platforms that can be used for Python.

Variables in Python Practice using the shell and the editor to assign values to variables and print them. Understand the difference between the comma and the + with string variables.

Lesson 2- Getting Input From the User, Converting Variable Types Use the input command, convert between the string, float, and int data types, use type() to determine variable type.

Lesson 3- Boolean Logic Learn how to combine conditional statements using not, and, or to produce True and False values

Lesson 4- Introduction to the If Statement Learn how an if statement executes code based on the true/false result of the comparison statement.

Lesson 5- Creating a Compound If Statement How to implement the boolean logic concepts in python code.

Lesson 6- Using Nested If Statements How to place an if statement inside another if statement in python.

Lesson 7- Using For and While Loops. How to repeat code based on a condition.

Lesson 8-Introduction to Python Lists Introduction to lists: creating, adding items, printing, using indexes/subscripts, slicing, sorting, and using the in operator.

Lesson 9- Operations With Python Lists Additional list operations: extend, append, insert, remove, split, join, index, count

Lesson 10- How to Generate and Use Random Numbers Using random numbers to create variety and unpredictability in programs, randint() and choice() functions

Lesson 11- Manipulating Strings in Python Additional string functions and processing letter by letter, in, reversing a string, immutability, slices, formatting in print statements

Lesson 12- Introduction to Python Functions Introduction to functions, how to define and call.Passing arguments to a function.Returning values from functions Assignment: