

Year group: 6	Term: Autumn 2	Unit: Programming –Introduction to Python
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Must have knowledge:

- To know that there are text-based programming languages such as Logo and Python.
- To know that nested loops are loops inside of loops.
- To understand the use of random numbers and remix Python code.

Key Vocabulary:

Indentation (programming) : In programming (for example Python), indentation is used to define a block of code.

Nested loop: A loop, within a loop.

Script libraries: A series of pre-written, functional codes that can be accessed and imported into a program to save time.

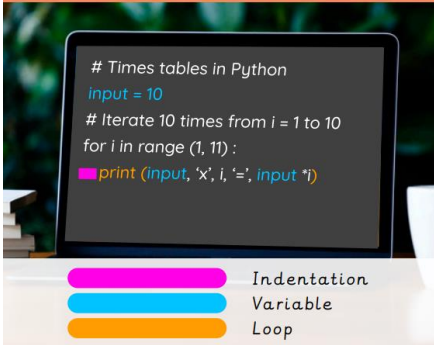
Remix: Something that has been reworked to produce a varying version of the original.

Key skills

- Using and adapting nested loops
- Programming using the language Python.
- Changing a program to personalise it.

Python program to display times tables:

Try this Python code out yourself, and change the variable (input = 'x') to display a different times table chart.



```
# Times tables in Python
input = 10
# Iterate 10 times from i = 1 to 10
for i in range(1, 11):
    print(input, 'x', i, '=', input * i)
```


Legend:
█ Indentation
█ Variable
█ Loop

Did you know?

Python is used to teach computers how to think for themselves!





This is sometimes known as artificial intelligence (AI) or machine-learning.

They can learn skills such as speech recognition.



Algorithm to make a cup of tea:

The steps in the algorithm must be followed, if we ignored step one, we would have no hot water!

 <p>1. Mug and hot water</p>	 <p>2. Add teabag</p>
 <p>3. Remove teabag</p>	 <p>4. Dash of milk</p>