

## Coding Club: Python Basics – Glossary

**argument** a piece of information that is required by a function so that it can perform its task.

Usually a string or number. `my_function(arguments go here)`

**bold** this is not defined in this glossary!

**bug** a piece of code that is causing a program to fail to run properly or at all.

**casting** the process of converting one data-type into another. For example, sometimes a number may be stored as text but need to be converted into an integer. This can be done like this: `int("3")`

**commenting** some text in a computer program that is for the human reader and is ignored by the computer when running the program. In python all comments begin with a hash symbol `#`

**comparative operator** sometimes called logic operators, they allow us to compare data in a program. They include `==` and `>` (others are found in Table 3 in the Appendix)

**constant** a number that does not change. It is good practice to name constants in capitals e.g.

`SPEED_OF_LIGHT`

**data-type** different types of information stored by the computer, for example floats, integers and strings.

**default** a value given to an argument or variable as a starting point.

**equals operator** the equals sign is used to assign a value to a variable in coding, for example `n=2` assigns the value 2 to the variable `n`.

**escape sequence** when characters that have certain meanings in Python are required in strings they have to be “escaped” so that the computer knows they do not have their usual meaning. This is done by putting a slash in front of them e.g. `\"`

**execute** another word meaning run. To execute some code is to run it.

**float** a number data-type that can have a decimal value.

**function** a reusable piece of code

**global variable** a variable that is usable anywhere in a program.

**hacking** taking some previously written code and re-writing bits to make it do something different.

**IDE** stands for Integrated Development Environment. IDLE is an example of one. They are special text editors with useful tools built in for programmers.

**IDLE** stands for Integrated DeveLopment Environment. This is the IDE that comes with a normal Python 3 install.

**infinite loop** a piece of code that keeps running forever. This is usually a bad thing.

**integer** a number data-type that cannot have a decimal value and must be a whole number.

**interactive mode** this is when we use IDLE to try out snippets of code without saving them.

**local variable** a variable that is defined inside a function and is only usable inside that function.

**logical operator** see comparative operator.

**loop** a piece of code that keeps repeating until a certain condition is met.

**mathematical operator** an operator that performs some mathematical function on some numbers.

e.g. multiplication or addition

**method** the name given to a function in a class.

**module** a saved python file whose functions can be used by another program.

**modulus** a mathematical operator that is used to return the remainder from a division calculation.

e.g. `22%7` returns 1

**operator** a symbol that performs a simple function on some code such as multiplying two numbers or comparing them to see if they are equal. See also **comparative operator** and **mathematical operator**.

**output** data that is sent from a program to a screen or printer etc.

**return** 1. the value a function will produce after it has been run. (It is also a Python keyword.) 2. the 'end of line' key on a keyboard, sometimes called the enter key.

**script mode** this is when we use IDLE to help us write code that we will save in a file.

**statement** used in this book to mean a snippet of code. Strictly speaking it is a piece of code that represents a command or action. e.g. a print statement

**string** text data, which can be stored in a variable.

**syntax error** an error produced when a computer fails to run a program because it cannot recognise the format of the code supplied. e.g. a syntax error would be produced if a bracket had not been closed.

**tkinter** a package of classes that are often imported in to Python programs that give methods that are useful for producing windows, drawing images and producing animations.

**variable** a name that refers to a place in a computer's memory where data is stored. More loosely, it can also be used to refer to that data.

**while loop** a kind of loop that repeats code while a comparative statement returns **True**.