

Unit Title	LESSON 1 – Introduction to programming and fundamentals
Level	Level 2 GCSE equivalent
Unit Code	1
Credit Value	20
Unit Aim	

- Introduce tutors to student
- Explain what programming is and its definition
- Explain what Python is (a programming language) and why it's the focus of the 'Introduction to Coding' course
- Guide the student through setting up their coding environment, which includes downloading Visual Studio code and file manoeuvring
- Demonstrate use of the environment and demo "Hello world"
- Outline the keywords in Python

Learning Outcomes

- A. Have introduced themselves to the tutor
- B. Understand the basic principle of programming and be able to give its definition
- C. Understand what Python is and why we are learning about it
- D. Have set up their coding environment and understand how to manoeuvre files
- Start their coding journey with the use of "Hello world" E.
- F. Understand Python keywords

LESSON 2 - Variables Pt. 1
Level 2 GCSE equivalent
2
20
2

Unit Aim

- Recapped lesson 1 and checked for understanding
- Explain what a variable is and the five different data types within Python

Learning Outcomes

- A. Recapped lesson 1 and checked for understanding (i.e. Python keywords)
- B. Understand and demonstrate with examples, the use of variables i.e.
- Sequence Data types
- C. Understand the use of quotations in Python

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Lesson 3

Unit Title	LESSON 3 – Variables Pt. 2
Level	Level 2 GCSE equivalent
Unit Code	3
Credit Value	20

Unit Aim

- Recapped lesson 2 and checked for understanding
- Continue lesson 2 and teach the remainder of the course set variables

Learning Outcomes

- A. Recapped lesson 2 and checked for understanding (i.e. what are variables and what is a Sequence Data type)
- B. Understand and demonstrate with examples, the use of the following variables:
- Numeric
- Sets
- Dictionaries
- Booleans

Unit Title	LESSON 4 – Operators and Decision making
Level	Level 2 GCSE equivalent
Unit Code	4
Credit Value	20

Unit Aim

- Recapped lesson 3 and checked for understanding
- Introduce and explain the main Operators in Python and Decision Making
- Cover the importance of lines and indentation

Learning Outcomes

- A. Recapped lesson 3 and checked for understanding (i.e. what is a variable and a set)
- B. Understand what an operator is and demonstrate its variations with examples i.e.
- Arithmetic operators
- Comparison operators
- Logical operators
- Decision making
- C. Understand the importance of lines and indentation and how to write it in Python

Unit Title	LESSON 5 – Loops and Functions
Level	Level 2 GCSE equivalent
Unit Code	5
Credit Value	20

Unit Aim

- Overview and recap of lesson 4
- Introduce and explain loops and functions

Learning Outcomes

- A. Recapped lesson 4 and checked for understanding (i.e. what is an operator and the different types)
- B. Understand the use of loops and functions:
- For loops/ while loops
- Functions
- Function arguments (Required, Keyword, Default, Variable length)
- Function returns