Lesson 1

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

On completion of this unit the Learner will:

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
E.   Start their coding journey with the use of "Hello world"
F.   Understand Python keywords

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Lesson 2

Unit Title	LESSON 2 – Variables Pt. 1
Level	Level 2 GCSE equivalent
Unit Code	2
Credit Value	20

Unit Aim	

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

Learning Outcomes	

On completion of this unit the Learner will:

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

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

On completion of this unit the Learner will:

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

Lesson 4

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

On completion of this unit the Learner will:

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

Lesson 5

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
On completion of this unit the Learner will: D. Recapped lesson 4 and checked for understanding (i.e. what is an operator and the different types) E. Understand the use of loops and functions: - For loops/ while loops - Functions - Function arguments (Required, Keyword, Default, Variable length) - Function returns