Objective 1:

Understand how to output text strings

In this objective you learn how to output text to the screen.

Tasks

1. Try entering the following commands and see what happens:

```
print("Hello World")
```

2. Try entering the text without the speech marks and see what happens:

```
print(Hello World)
```

Note the difference. One works and one doesn't! If you want to output text to the screen it must be included in speech marks. Text is called a string in programming and must be enclosed in double quotes. Python is a case sensitive language, the commands, such as 'print' must be entered in lowercase.

3. Try entering the following commands and see what happens:

```
print("Hello World","this is my first program.")
```

Note how a comma joins strings together. This is called concatenation. In Python a comma adds a space between the strings. If you don't want this, use a + instead of a comma.

4. Try this sequence of instructions:

```
#Start of message
print("Hello World","this is my first program.")
#Blank line
print()
#End of message
print("I am learning to code...")
print("...and it is fun")
```

Note the hash symbol enables you to insert a comment in the code. The computer ignores the comments, but they help to introduce the program and allow you to leave notes in the code to make it easier to understand later.

5. Change the program so it outputs this instead:

```
Computers only do exactly as they are told…
…so you need the code to be correct!

If you make any mistake with the commands, it won't work
```

Objective 1: Key learning points

Understand how to output text strings

- Text is known as a **string** in programming and must be enclosed in double quotes.
- Strings can be joined together using a comma or plus symbol. This is known as **concatenation**.
- When a program is run it is called **executing** the program.
- A set of instructions that execute one after another is known as a **sequence**.
- Comments can be inserted into the code using a hash symbol. These are helpful to make notes within the program so that the code can be understood again at a later date or by another programmer.

Objective 1: Key words

print()

Example code: `print(x)`

Purpose: to output x to the screen followed by a carriage return.

To disable the carriage return, use: `print(x,end='')`