|  |  |
| --- | --- |
| **NAME** | **TUTOR GROUP** |

**WARNING: WHEN YOU ARE ASKED TO TYPE IN THIS TASK, TYPE IT! DO NOT COPY AND PASTE. IT WILL NOT WORK!**

Open **IDLE (Python GUI)**. You will get a window that should look like the screen shown below on the left. This is called the ‘**Python Shell**’.

|  |  |
| --- | --- |
|  |  |

It is tradition that everyone’s first program is always the ‘Hello World’ program. This prints out the words Hello World onto the screen.

**Inside the Python Shell type the following code and then press enter:**

print(“hello world”)

**What happened when you pressed enter?**

|  |
| --- |
| it said hello world |

The computer will print out exactly what is written between the speech marks “ “. **Try to write a line of code to print out the things in the table below. Copy the line of code you had to type to make it happen.**

|  |  |
| --- | --- |
| Your name |  |
| Your favourite food |  |
| Your age |  |

**Type in the following line of code:**

print(10)

**What happened when you pressed enter?**

|  |
| --- |
|  |

**Type in the following line(s) of code, pressing enter after each line:**

print(10\*2)

print (5+1)

print (6-7)

**What happened when you pressed enter?**

|  |
| --- |
|  |

So far you have been writing code one line at a time. Next you are going to learn to program by giving Python a full set of instructions.

Inside your Python Shell click on **File** **> New Window**. A new window will appear.

**Type in the following block of code:**

print (“hello world”)

print (“My name is (INSERT YOUR NAME) and I am learning to program”)

print (“I can print out text”)

print (“3+3=”)

print (3+3)

print (“4\*5=”)

print (4\*5)

Python is helpful and colours your code to make it more understandable. Anything in green is a string, which means Python treats it as text and will print it exactly as it appears.

Open your **Documents** folder and create a new folder called **Python**.

Click on **File > Save As** and save your code with the filename **program1.py** inside your Pyhton folder.

Click on **Run > Run Module**.

Your code should then appear in a Shell window.

If it worked - Congratulations! - you have just written your first Python program. If it didn’t, check the code very carefully and ensure that you have typed it correctly. Save it again as **program1.py**.

Now you can program, you need to write a program to solve the following problems. **Write code for each expression, then complete the table showing your code, the result and try to explain what each one does**. The first one has been done for you

|  |  |  |  |
| --- | --- | --- | --- |
| **Expression** | **Your Code** | **Result** | **What does it do?** |
| 3+4 | print(3+4) | 7 | Adds 3 and 7 together |
| 57-4 |  | 53 | Take 4 away from 57 |
| 4\*6 |  | 24 | multiples |
| 7/3 |  |  |  |
| 7%3 |  |  |  |
| 2\*\*3 |  |  |  |
| 3==3 |  |  |  |
| 3==6 |  |  |  |
| 4<6 |  |  |  |
| 4>6 |  |  |  |
| 4!=6 |  |  |  |
| range(100) |  |  |  |

As an extension task, you need to carry out some research to see if you can find out what the key terms **variable** and **input** mean.