A level Computer Science Transition work

Congratulations on your A' level choice of 'Computer Science'. I have no doubt you will enjoy this course although at times the work will be challenging. The work outlined below will get you in the right frame of mind. However, don't forget to have a holiday! Please hand your work in during the first week of the course. Have a wonderful holiday, see you in September! Mr. Wilce

Task 1:

The role of Computers

The world is changing, more rapidly than ever before. It is difficult to make predictions about the future. Investigate how quickly computer technology has evolved. Describe the role that computers now play in our lives. What specification are the world's most powerful computers and what are they used for? Try and describe some innovative uses of computer technology. Finally, try and give an indication of what the future might look like? Make sure you include future uses of Artificial Intelligence(AI).

Wordprocessed – 1000 words

Task 2:

For this task, you will require a copy of Microsoft Visual Studio 2010 or later. You can download the most up to date copy of Visual Studio from (https://visualstudio.microsoft.com/vs/features/net-development/). Please note that we will be using Windows Console and Form mode (in vb.net)

Task 3:

You may remember this task from your GCSE course! Create a simple guessing game in Python, where the computer generates a random number between 1 and 100. The user has to guess what it is. The computer will tell the user whether they are right, too low or too high. The program needs to tell the user how many goes it took to guess the number.

You will need to use a variable for the computer generated random number. In vb.net, this has to be declared at the start using the following instruction:

Dim varComputerNumber **As Integer**

You will need to use the following instruction to generate the random number:

varComputerNumber = 1 + **CInt**(Rnd()*99)

You will also need to use an **IF** statement and a **Do While** loop:

```
If  put your condition here Then
        instructions
Else
        instructions
Endif
```

```
Do
        instructions

Loop While put your condition here
```

Finally:

Produce some documentation that demonstrates the above program. Include detailed explanations of how it works. Include 'printscreens' of your code and proof of it running.