

WINDSOR SIXTH FORM SUMMER WORK



A Level Computer Science

Complete the Summer Task worksheet in Word below and email finished worksheet to:
mnugent@windsor.windsoracademytrust.org.uk

Complete the worksheet to:

- Demonstrate your ability to convert between number bases (binary, hex and decimal)
- Create a program that analyses a passage of text from a file and then count:
 - How many words
 - The average length of a word
 - How many times each word occurs
 - How many words start with each letter of the alphabet.

The aim of this exercise is to test your ability to develop algorithms.

Complete one of the projects using Python from codeboom.



Staff contact: Miss M Nugent

E-mail: mnugent@windsor.windsoracademytrust.org.uk



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Computer Science - Summer Task Worksheet

Activity 1:

Converting between binary, decimal and hex and addition

Convert the following to binary and HEX

- 15
- 135
- 78
- 205
- 255
- 360

Add the following:

- $01100111 + 10101101$
- $11101010 + 10110101$
- $10110101 + 10111101 + 10110101$
- $10110111 + 10101101 + 10111111$

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Activity 2:

The aim of this exercise is to test your ability to develop algorithms.

Create a program that analyses a passage of text from an input and then counts

1. How many words
2. The average length of a word
3. How many times each word occurs
4. How many words that start with each letter of the alphabet?

Evidence - code

___/4

Evidence - Output

___/4



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Activity 3

Complete one of the projects using Python from codeboom.

<https://codeboom.wordpress.com/2012/07/30/10-mini-programming-projects/>

Project- *(insert name of project chosen here)*

Evidence - code

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Evidence - Output

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