

AS and A LEVEL COMPUTER SCIENCE

KS4-KS5 Transition Guide

Checkpoint Task Learner Activity

Data types, data structures and algorithms

Activity 1

Converting between denary, binary and hex

No.	Denary	Binary	Hex	Binary value plus 00011110
1	1			
2	5			
3	10			
4	22			
5	40			
6	77			
7	91			
8	121			
9	144			
10	168			
11	170			
12	200			
13	211			



AS and A LEVEL *COMPUTER SCIENCE*

Activity 2

Create a program that analyses a passage of text from a file and then counts:

- 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.

