

AS and A LEVEL COMPUTER SCIENCE

KS4-KS5 Transition Guide

Checkpoint Task

Instructions and answers for teachers

These instructions should accompany the OCR resource 'Data types, data structures and algorithms' KS4-KS5 Transition guide which supports OCR A Level Computer Science.

Data types, data structures and algorithms

Activity 1

Converting between denary, binary and hex

No.	Denary	Binary	Hex	Binary value plus 00011110
1	1	00000001	01	00011111
2	5	00000101	05	00100011
3	10	00001010	0A	00101000
4	22	00010110	16	00110100
5	40	00101000	28	01000110
6	77	01001101	4D	01101011
7	91	01011011	5B	01111001
8	121	01111001	79	10010111
9	144	10010000	90	10101110
10	168	10101000	A8	11000110
11	170	10101010	AA	11001000
12	200	11001000	C8	11100110
13	211	11010011	D3	11110001

ABC – This activity offers an opportunity for English skills development.

123 – This activity offers an opportunity for maths skills development.



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Activity 2

You could also use this task to introduce the idea of regular expressions.

The guide below covers RegEx in Python:

<http://www.pythonschool.net/regular-expressions/python-and-regular-expressions/>



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