OCR GCSE COMPUTER SCIENCE (9-1)

"THE BEST WAY TO PREDICT THE FUTURE... IS TO INVENT IT"

- ALAN KAY

WHAT WILL I LEARN?

THE COURSE IS DIVIDED INTO TWO UNITS. EACH DIVIDED INTO SUBSECTIONS.

Content Overview

J277/01: Computer systems

This component will assess:

- 1.1 Systems architecture
- 1.2 Memory and storage
- 1.3 Computer networks, connections and protocols
- 1.4 Network security
- 1.5 Systems software
- 1.6 Ethical, legal, cultural and environmental impacts of digital technology

J277/02: Computational thinking, algorithms and programming

This component will assess:

- 2.1 Algorithms
- 2.2 Programming fundamentals
- 2.3 Producing robust programs
- 2.4 Boolean logic
- 2.5 Programming languages and Integrated Development Environments

HOW WILL I BE ASSESSED?

AT THE END OF YEAR 11, STUDENTS ARE ASSESSED BY TWO EXTERNAL EXAMINATIONS.

ONE EXAM FOR EACH OF THE UNITS.

EACH EXAM LASTS FOR 90 MIN AND IS WORTH 50% OF THE QUALIFICATION.

Numbers can be represented in denary, binary or hexadecimal.

i. Convert the binary number 01101001 to denary, showing your working.

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[2]

ii. Convert the denary number 154 to binary.

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[2]

The specification of two CPUs is shown in **Fig. 1**.

Computer 1	Computer 2
Clock Speed: 1 GHz	Clock Speed: 1.4 GHz
Cache size: 2 MB	Cache size: 2 MB
Number of Cores: 4	Number of Cores: 2

Fig. 1

Identify **two** other parts of a computer that are not in **Fig. 1**, which could improve the performance of the computers.

1 --

2 --
[2]

LEARNING TO CODE

LEARNING TO CODE IS A LOT OF FUN

THIS IS WHERE YOUR LOGICAL MIND AND YOUR CREATIVE MIND COMBINE

LEARN PYTHON AT GCSE

```python
#Objective 9 - Currency converter problem

def exchange(country,gpb):
    rates = ["USD",1.26,"Euro",1.11,"Rupee",90.45,"Yen",143]
    index = 0
    #Find the currency in the list/array
    while rates[index] != country:
        index = index + 1
    if rates[index] == country:
        #Currency found
        return round(rates[index+1]*gbp,2)
    else:
        #Currency not found
        return None

#############################################################################
#Main program starts here
gbp = float(input("Enter the number of British Pounds: "))
country = input("Enter the currency: ")
value = exchange(country,gbp)
if value != None:
    print(value)
else:
    print("Currency not found.")
```
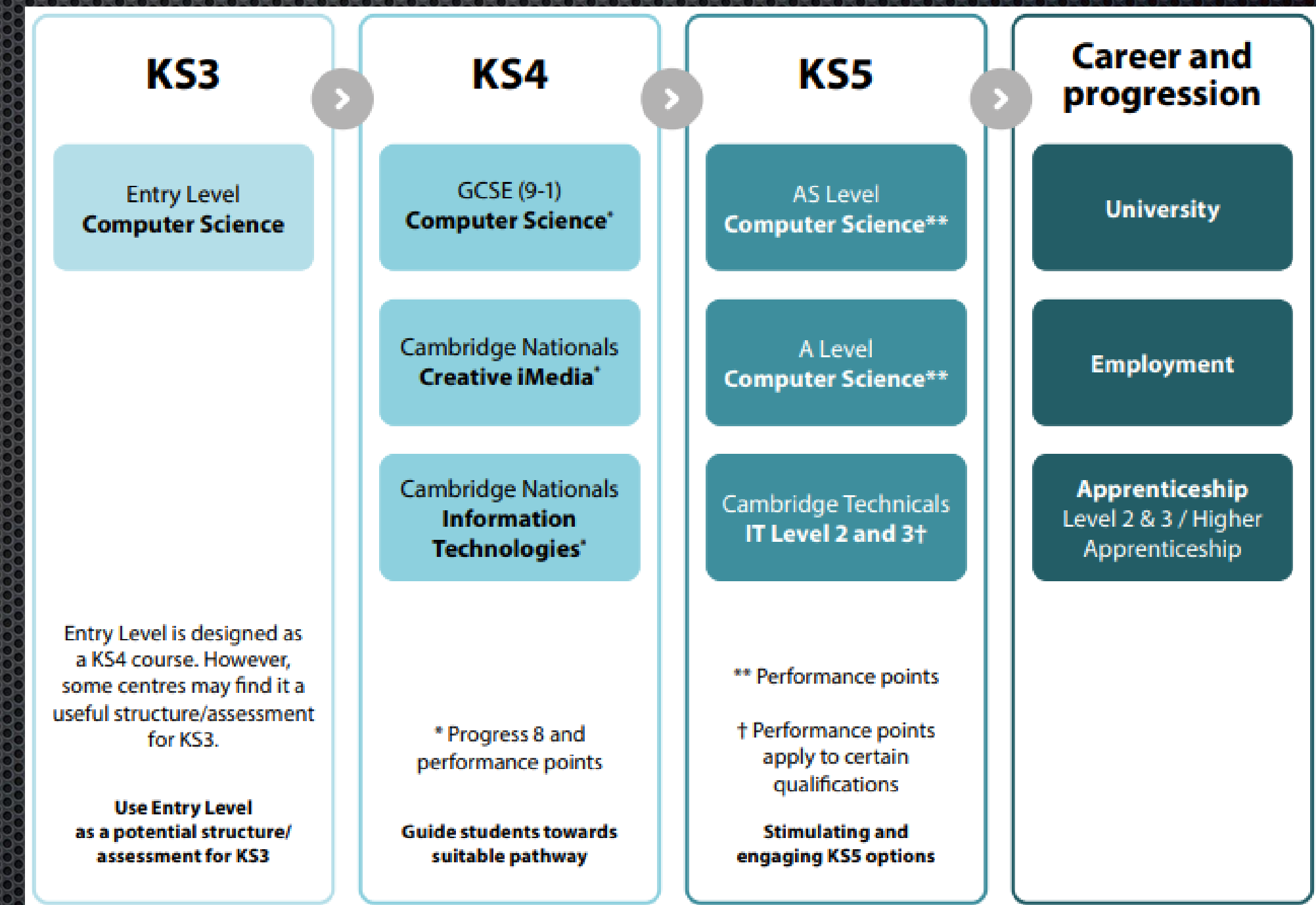
WHY STUDY COMPUTER SCIENCE?

CREATIVE SUBJECT

CODING

LOGIC

HOW THE COMPUTER WORKS

EMPLOYABLE

FUTURE PROOF

KS3	KS4	KS5	Career and progression
Entry Level **Computer Science**	GCSE (9-1) **Computer Science***	AS Level **Computer Science****	University
	Cambridge Nationals **Creative iMedia***	A Level **Computer Science****	Employment
	Cambridge Nationals **Information Technologies***	Cambridge Technicals **IT Level 2 and 3†**	Apprenticeship Level 2 & 3 / Higher Apprenticeship
Entry Level is designed as a KS4 course. However, some centres may find it a useful structure/assessment for KS3.		** Performance points	
		† Performance points apply to certain qualifications	
	* Progress 8 and performance points		
Use Entry Level as a potential structure/ assessment for KS3	**Guide students towards suitable pathway**	**Stimulating and engaging KS5 options**	

FURTHER INFORMATION

FOR INFORMATION OR QUESTIONS
PLEASE CONTACT MR KLING
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TO READ THE COURSE
SPECIFICATION
CLICK HERE.

FOR A FREE SAMPLE OF THE
REVISION GUIDE
CLICK HERE.