DEPARTMENT:

Computer Science

Year	· Term 1		Term 2		Term 3		
rear	Topics: Algorithms, Programming Techniques and Producing Robust Programs. Translators		Topics: Algorithms, Programming Techniques and Producing Robust Programs. Translators		Topics: Computational Logic + Data Representation		Topics: Computatio
	Knowledge & Skills:	Why?	Knowledge & Skills:	Why?	Knowledge & Skills:	Why?	Knowledge & Skills:
	Pyhton basics to competent programmers. Computational	Develop understanding of coding	Pyhton basics to competent programmers. Computational	Develop understanding of coding	Why and how data is represented in Binary form. Applying	A complex unit, mainly classroom based;	Why and how data
							Computational Mat
	Thinking (think like a computer), algorithms and programming		Thinking (think like a computer), algorithms and programming	constructs. Develop the Computational	Computational Maths and working with different data sizes	supports Unit 1 theories.	computational Mat
	techniques.	Thinking skills required to access Unit 2.	techniques.	Thinking skills required to access Unit 2.			
	Group Differentiation	Links to careers	Group Differentiation	Links to careers	Group Differentiation	Links to careers	Group Differentiatio
•	D1, D2, D3 + D6	Program Developers + Problem Solving		Program Developers + Problem Solving	D1, D3, D4, D5, D6, D7	Backend programmers and Computer	D1, D3, D4, D5, D6,
9	Initial differentiation to ascertain quality of knowledge	generic to all careers	Initial differentiation to ascertain quality of knowledge	generic to all careers	To change depending on the class	Engineers	To change dependin
	Reading & Extended Writing	Numeracy	Reading & Extended Writing	Numeracy	Reading & Extended Writing	Numeracy	Reading & Extended
						-	-
	Using algorithms to clearly set out the step to solve simple to	Ensuring you have to correct logic	Using algorithms to clearly set out the step to solve simple to	Ensuring you have to correct logic	Limited	Boolean algebra abd	Limited
	complex problems	symbols and notation for programs to	complex problems	symbols and notation for programs to		Binary/Hexadecimal addition/division	
		work as expected.		work as expected.			
	SMSC		SMSC	I	SMSC	<u> </u>	SMSC
			Why should you annotate your code for someone else to use?		N/A		N/A
	Topics: Ethical Issues and Laws		Topics: Computational Logic + Data Representation		Topics: Computational Logic + Data Representation		Topics: Systems Arc
	Knowledge & Skills:	Why?	Knowledge & Skills:	Why?	Knowledge & Skills:	Why?	Knowledge & Skills:
	Understand how Computer Technology has affected the world	Builds on moral standings and being a	Why and how data is represented in Binary form. Applying	A complex unit, mainly classroom based	Why and how data is represented in Binary form. Applying	A complex unit, mainly classroom based;	Internal workings of
	around us and the laws that govern it.	better citizen.	Computational Maths and working with different data sizes	supports Unit 1 theories.	Computational Maths and working with different data sizes	supports Unit 1 theories.	together. Knowledg
10							
	Group Differentiation	Links to careers	Group Differentiation	Links to careers	Group Differentiation	Links to careers	Group Differentiatio
	D4 + D6 - group discussion and arguments	Every career in IT as well as many in all	D1, D2 + D5	Backend programmers and Computer	D1, D2 + D5	Backend programmers and Computer	D1, D2 + D5
		aspects of working life.	Topics covered - now stretching and embeddeding knowledge	Engineers	Topics covered - now stretching and embeddeding knowledge	Engineers	Topics covered - no
	Reading & Extended Writing	Numeracy	Reading & Extended Writing	Numeracy	Reading & Extended Writing	Numeracy	Reading & Extended
	Laws specific to Computer Usage and keep people and their	N/A	Limited	Boolean algebra abd	Limited	Boolean algebra abd	Accurately describin
	personal data safe			Binary/Hexadecimal addition/division		Binary/Hexadecimal addition/division	why certain storage
	SMSC		SMSC		SMSC		SMSC
	How IT is used and accessed throughout the county and world? Your rights and a user and as a company?		N/A		N/A		Use of certain brand
	Topics: Algorithms, Programming Techniques and Producing Robust Programs. Translators		Topics: Computational Logic + Data Representation		Topics: Systems Architecture, Memory and Storage		Topics: Networking,
	****NEA TASK****						
	Knowledge & Skills:	Why?	Knowledge & Skills:	Why?	Knowledge & Skills:	Why?	Knowledge & Skills:
		Develop understanding of coding	Why and how data is represented in Binary form. Applying		Internal workings of a PC and how the components fit	Supports Unit 2 programming; thinking	How computer system
	Thinking (think like a computer), algorithms and programming		Computational Maths and working with different data sizes	supports Unit 1 theories.	together. Knowledge of storage media, capacity and usage.	like a Computer, now they look in to	intelligently. Netwo
	techniques. NEA TASK set by Exam Board	Thinking skills required to access Unit 2.				how a computer works and why.	software.
	Group Differentiation	Links to careers	Group Differentiation	Links to careers	Group Differentiation	Links to careers	Group Differentiatio
			D1, D2 + D5	Backend programmers and Computer	D1, D2 + D5	Sales of Computer Hardware	D1, D2 + D5
11			Topics covered - now stretching and embeddeding knowledge	Engineers	Topics covered - now stretching and embeddeding knowledge		Topics covered - no
	Reading & Extended Writing	Numeracy	Reading & Extended Writing	Numeracy	Reading & Extended Writing	Numeracy	Reading & Extended
			Limited	Boolean algebra abd	Accurately describing the purpose of different registers and	Capacity of storage devices	Licensing agreemen
				Binary/Hexadecimal addition/division	why certain storage devices are used.		policies
			SMSC		SMSC		SMSC
			N/A				Fair use of licensing Access rights to use
					1		

Torres 4		Town		Torm (
Term 4 tational Logic + Data Representation		Term 5		Term 6		
tational Logic + Data Representation		Topics: Systems Architecture, Memory and Storage		Topics: Networking, Systems Security and Software		
data is represented in Binary form. Applying	-	Knowledge & Skills: Internal workings of a PC and how the components fit together. Knowledge of storage media, capacity and usage.	Why? Supports Unit 2 programming; thinking like a Computer, now they look in to how a computer works and why.	Knowledge & Skills: How computer systems work together, secure, efficiently and intelligently. Networking attributes and protocols and system software.	Why? Build a bigger picture of how computers communicate world-wide looking at how laws are govered.	
tiation , D6, D7 ending on the class		Group Differentiation D1, D3, D4, D5, D6, D7 To change depending on the class	Links to careers Sales of Computer Hardware	Group Differentiation D1, D3, D4, D5, D6, D7 To change depending on the class	Links to careers IT Technicians, Network Managers, Secuity Specialist	
nded Writing	Numeracy Boolean algebra abd Binary/Hexadecimal addition/division	Reading & Extended Writing Accurately describing the purpose of different registers and why certain storage devices are used.	Numeracy Capacity of storage devices	Reading & Extended Writing Licensing agreements and producing network and usage policies	Numeracy Network Speeds	
		Use of certain brand of hardware.		SMSC Fair use of licensing and policies. Access rights to users and positions		
s Architecture, Memory and Storage		Topics: Networking, Systems Security and Software		Topics: Algorithms, Programming Techniques and Producing Robust Programs. Translators		
gs of a PC and how the components fit	Supports Unit 2 programming; thinking like a Computer, now they look in to	Knowledge & Skills: How computer systems work together, secure, efficiently and intelligently. Networking attributes and protocols and system software.	Why? Build a bigger picture of how computers communicate world-wide looking at how laws are govered.	Knowledge & Skills: Pyhton basics to competent programmers. Computational Thinking (think like a computer), algorithms and programming techniques.	Why? Develop understanding of coding constructs. Develop the Computational Thinking skills required to access Unit 2.	
tiation - now stretching and embeddeding knowledge		Group Differentiation D1, D2 + D5 Topics covered - now stretching and embeddeding knowledge	Links to careers IT Technicians, Network Managers, Secuity Specialist	Group Differentiation D1, D2 + D5 Topics covered - now stretching and embeddeding knowledge	Links to careers Program Developers + Problem Solving generic to all careers	
	Capacity of storage devices	Reading & Extended Writing Licensing agreements and producing network and usage policies	Numeracy Network Speeds	Reading & Extended Writing Using algorithms to clearly set out the step to solve simple to complex problems	Numeracy Ensuring you have to correct logic symbols and notation for programs to work as expected.	
orand of hardware.				SMSC Why should you annotate your code for someone else to use?		
king, Systems Security and Software		Topics: Ethical Issues and Laws		Topics: Gap fills and Revision Techniques		
systems work together, secure, efficiently and	Build a bigger picture of how computers	Knowledge & Skills: Understand how Computer Technology has affected the world around us and the laws that govern it.	Why? Builds on moral standings and being a better citizen.	Knowledge & Skills: Various - fill in gaps and revisit topics highlights to be difficult	Why? Preparation for GCSE Exams.	
tiation - now stretching and embeddeding knowledge		Group Differentiation D4 + D6 - group discussion and arguments	Links to careers Every career in IT as well as many in all aspects of working life.	Group Differentiation D1, D3, D4 + D6 Lots of small group intervention	Links to careers All aspects of course	
nded Writing ments and producing network and usage	Numeracy Network Speeds	Reading & Extended Writing Laws specific to Computer Usage and keep people and their personal data safe	Numeracy N/A	Reading & Extended Writing Various - depending on the particular section of need	Numeracy Mainly boolean algerba and working with binary.	
nsing and policies. users and positions		SMSC How IT is used and accessed throughout the county and world? Your rights and a user and as a company?		SMSC Various - depending on the particular section of need		