

Summer Term (Half Term 5 & 6) Computer Science

Year 10

Name: _____

Tutor: _____



Year 10 Homework Timetable

Monday	English Task I	Ebacc Option A Task I	Option C Task I	
Tuesday	Tassomai	Option B Task I	Modern Britain Task I	
Wednesday	Sparx	Science Task I	Option C Task 2	
Thursday	Ebacc Option A Task 2	Tassomai	Option B Task 2	Modern Britain Task 2
Friday	Sparx	Science Task 2	English Task 2	

Tassomai - 2 Daily Goals per week Sparx - 4 tasks of Sparx per week

Option A (EBACC)	Open B	Open C
French	Art	Business Studies
Geography	Business Studies	Childcare
History	Catering	Catering
	Computer Science	Drama
	History	Geography
	Health & Social Care	Health & Social Ca
	Music	Triple Science
	Sport	Sport

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Open C
Business Studies
Childcare
Catering
Drama
Geography
Health & Social Care
Triple Science
Sport

Week Beginning Date	Homework Task 1 Cornell Notes	Homework Task 2 Homework Question
Week 27 Monday 17th April	1.4.1 Forms of Attack	Identifying and Describing types of cyber attacks.
Week 28 Monday 24th April	1.4.2 Identifying vulnerabilities	Identifying threats to computer systems and method to prevent the threat.
Week 29 Monday 1st May	1.5.1 Operating Systems 1	Explaining the purpose of Operating Systems
Week 30 Monday 8th May	1.5.2 Operating Systems 2	Identifying the functions provided by an Operating System
Week 31 Monday 15th May	1.5.2 Utility Software	Explain how defragmentation can prevent a slow computer system.
Week 32 Monday 22nd May	1.6.1 Investigating the impact of Computer Science Technologies.	Essay response, exploring the impact of Internet and mobile phones on a community.
Monday 29th May	HALF-TERM	
Week 33 Monday 5th June	1.6.1 Privacy and Cultural Issues	Expanding answer from previous work to include new knowledge gained.
Week 34 Monday 12th June	1.6.1 Environmental Issues and Impact on Wider Society	Discuss the environmental impact of selling products online.
Week 35 Monday 19th June	Revision of all topics covered to date, in preparation for MOCK exams.	No new question, ensure that all previous questions are completed and corrected.
Week 36 Monday 26th June	MOCK WEEK	
Week 37 Monday 3rd July	MOCK WEEK	
Week 38 Monday 10th July	1.6.2 Legislation	Identifying the legislation that applies in a range of contexts.
Week 39 Monday 17th July	1.6.2 Open Source and Proprietary Software	Describe what is meant by proprietary software. Discuss the benefits of proprietary software.

WEEK 27: Cornell Notes (Homework task 1)

Date /	1	Topic: 1.4.1 Forms of Attack	Revision guide page: 30-32
Links	Notes		
	8		
Forms of			
Attack			
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	9 8		
Threats Posed			
Questions			

WEEK 27: Exam Question (Homework task 2)

Date.....

Question:

Amir has a home network that includes two laptop computers, four mobile phones, and two televisions. Amir wants to protect the computers on his network from threats such as unauthorised access. The following incomplete table contains a form of attack and description.

Complete the table by writing the missing Form of attack and Descriptions. (5 marks)

Form of attack	Description of attack
	A program attempting all possible password combinations
Malware/Virus/Trojan etc.	
	Disguising themselves as a trustworthy source in an electronic communication, such as an email.
Denial of Service	
	Data transmission being read by unauthorised user/program
Ransomware	

WEEK 27: Exam Question review and improvement (Classwork)

Form of attack	Description of attack
	A program attempting all possible password combinations
Malware/Virus/Trojan etc.	
	Disguising themselves as a trustworthy source in an electronic communication, such as an email.
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	Data transmission being read by unauthorised user/program
Ransomware	

WEEK 28: Cornell Notes (Homework task 1)

Date	Ι	1	Topic: 1.4.2 Identifying vulnerabilities	Revision guide page: 30-32
Links		Notes		
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Question	S			
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WEEK 28: Exam Question (Homework task 2)

Date.....

Question:

Data in computer systems is valuable and at risk of loss, damage or being stolen. Name two other threats to the data in a computer system and give a method of preventing each. (4 marks)

Answer

Threat 1	
Prevention 1	
Threat 1	
Prevention 2	

WEEK 28: Exam Question review and improvement (Classwork)

Threat 1	
Prevention 1	
Threat 1	
Prevention 2	

WEEK 29: Cornell Notes (Homework task 1)

Date /	Ι	Topic: 1.5.1 Operating Systems 1	Revision guide page: 8-9
	Notes		
Operating Systems 1			
Questions			

WEEK 29: Exam Question (Homework task 2)

Date.....

Question:

Complete the following description of the functions of an operating system by selecting the appropriate missing words from those in the box. (8 marks)

user duivers directories boudware interface multitacting output marin bouch		
user drivers directories hardware interface multitasking output peripherals printers processor RAM utility ROM running passwords faster volatile virtual		
Answer		
The operating system provides a user		
output to the user and allows the user to interact with the		
The operating system controls the movement of data from secondary storage to		
and vice-versa. This is known as memory management.		
The operating system can only perform one process at a time, but by managing the memory		
the computer can appear to be completing more than one process at a time. This is known as		
An operating system allows device		
an external piece of hardware to interact with the		
The operating system provides security through user accounts and		
It also creates and maintains a file system to organise files		
and		

and

WEEK 29: Exam Question review and improvement (Classwork)

Answer
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The operating system controls the movement of data from secondary storage to
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The operating system can only perform one process at a time, but by managing the memory
the computer can appear to be completing more than one process at a time. This is known as
An operating system allows deviceto be installed to allow
an external piece of hardware to interact with the
The operating system provides security through user accounts and
It also creates and maintains a file system to organise files
and

WEEK 30: Cornell Notes (Homework task 1)

Date /	1	Topic: 1.5.1 Operating Systems 2	Revision guide page: 8-9
Links	Notes		
Operating Systems 2			
Questions			

WEEK 30: Exam Question (Homework task 2)

Date.....

Question:

Eve's computer has system software including an Operating System and Utility Software. Tick (\checkmark) one box in each row to identify which function of the Operating System deals with each action. (5 marks)

Answer

Action	Memory management	Peripheral management	File management	User management
Creating a new folder to store documents in				
Moving data from Virtual Memory to RAM				
Renaming a file				
Reading data from a barcode scanner				
Changing the password required to log on to the computer				

WEEK 30: Exam Question review and improvement (Classwork)

Action	Memory management	Peripheral management	File management	User management
Creating a new folder to store documents in				
Moving data from Virtual Memory to RAM				
Renaming a file				
Reading data from a barcode scanner				
Changing the password required to log on to the computer				

WEEK 31: Cornell Notes (Homework task 1)

Date /	1	Topic: 1.5.2 Utility Software	Revision guide page: 10
Links	Notes		
回答已入得 Utility			
<u>Software</u>			
Questions			

WEEK 31: Exam Question (Homework task 2)

Date.....

Question:

A restaurant has a computer-based ordering system which is running slowly. A technician has said that the hard disc drive is fragmented. The technician has suggested using utility software to defragment the drive.

Explain how defragmentation software could overcome the issue of the slow computer system. (3 marks)

Answer:

WEEK 31: Exam Question review and improvement (Classwork)

WEEK 32: Cornell Notes (Homework task 1)

Date /	1		Topic: 1.6.1 Comp. Sci. Technologies	Revision guide page: 34-38
Links		otes		
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<u>Computer</u> <u>Science</u> <u>Technologie</u>	<u>s</u>			
Questions				

WEEK 32: Exam Question (Homework task 2)

Date.....

Question:

A small island has 100 people living on it. The island has just been connected to the Internet, after previously having no Internet or mobile phone signal. Discuss the impact on the island's inhabitants and businesses of getting access to the Internet. In your answer you might consider the impact on:

- inhabitants
- businesses
- ethical issues
- privacy issues

8 marks

WEEK 32: Exam Question review and improvement (Classwork)

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8 marks

WEEK 33: Cornell Notes (Homework task 1)

Date	Ι	1	Topic: 1.6.1 Privacy and Cultural Issues	Revision guide page: 34-38
Links		Notes		
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Privacy				
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<u>Cultural</u>				
Question	s			

WEEK 33: Exam Question (Homework task 2)

Date.....

Question:

A small island has 100 people living on it. The island has just been connected to the Internet, after previously having no Internet or mobile phone signal. Discuss the impact on the island's inhabitants and businesses of getting access to the Internet. In your answer you might consider the impact on:

- inhabitants
- businesses
- ethical issues
- privacy issues

Expand on your answer from last week, by including some comments about privacy and cultural issues.

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WEEK 33: Exam Question review and improvement (Classwork)

WEEK 34: Cornell Notes (Homework task 1)

Date	Ι	Ι	Topic: 1.6.1 Environmental Issues and	Revision guide page: 34-38
			Impact on Wider Society	

Links	Notes
Environment	
<u>Wider Society</u>	
Questions	

WEEK 34: Exam Question (Homework task 2)

Date.....

Question:

Fiona is a software engineer. She is creating a new version of a computer game she released three years ago. Fiona is considering selling the game online and not making it available physically in shops.

Describe the environmental impact of Fiona's decision. (2 marks)

Answer:

WEEK 34: Exam Question review and improvement (Classwork)

WEEK 35: Cornell Notes (Homework task 1)

Date I I Topic: Revision Revision guide page: 34
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Use the <u>J277 Revision Playlist</u> to revise topics 1.1 to 1.6, in preparation for your MOCK Exam

Links	Notes
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<u>Revision</u> <u>Playlist</u>	
Questions	

WEEK 35: Exam Question (Homework task 2)

No new questions for this week, please utilise this time to go back over previous questions as part of your revision.

WEEK 38: Cornell Notes (Homework task 1)

Date /	Ι		Торі	c: 1.6.2 Legisl	ation	Revision guide page:
Links	No	tes				
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Legislation						
Questions						

Date.....

Question:

A law company currently uses a Local Area Network (LAN) linked to a Wide Area Network (WAN). They want to upgrade their system to utilise cloud storage. Tick (\checkmark) one box in each row to show which legislation applies to each action.

Action	Data Protection Act	Computer Misuse Act	Copyright Design and Patents Act
Using a picture for the law company's new logo without the original creator's permission.			
A secretary accessing a lawyer's personal email account without permission.			
Making a copy of the latest Hollywood blockbuster movie and sharing it with a client.			
Storing customer data insecurely.			
A lawyer installing a keylogger on the secretary's computer.			
Selling client's personal legal data to a marketing company without their permission.			

WEEK 38: Exam Question review and improvement (Classwork)

Action	Data Protection Act	Computer Misuse Act	Copyright Design and Patents Act
Using a picture for the law company's new logo without the original creator's permission.			
A secretary accessing a lawyer's personal email account without permission.			
Making a copy of the latest Hollywood blockbuster movie and sharing it with a client.			
Storing customer data insecurely.			
A lawyer installing a keylogger on the secretary's computer.			
Selling client's personal legal data to a marketing company without their permission.			

WEEK 39: Cornell Notes (Homework task 1)

Date	1	1	Topic: 1.6.2 Open Source v Proprietary	Revision guide page:
			Software	

Notes

WEEK 39: Exam Question (Homework task 2)

Date.....

Question:

Apu has a handheld e-book reader that allows him to store and read electronic books. The manufacturer of the e-book reader provides proprietary software, which Apu can use to transfer the e-book from the CD-ROM to the e-book reader.

(i) Describe what is meant by proprietary software. (2 marks)

(ii) Explain one advantage to the manufacturer of providing proprietary software instead of open source software. (2 marks)

WEEK 39: Exam Question review and improvement (Classwork)

(i) Describe what is meant by proprietary software. (2 marks)

(ii) Explain one advantage to the manufacturer of providing proprietary software instead of open source software. (2 marks)



Develop your character



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