

TRANSITION ACTION IN

TRANSITION TASK
SUMMER 2020





Welcome to Post 16 ICT Studies at Woolwich Poly Technic .This is your opportunity to learn the hottest topic in the industry – Cyber Security. Excellent preparation for the world of work and further learning on how IT and Computing making an impact to society and the world.

A good choice has been made!

Transition Task

There are many topics to choose for your Transition task but I have chosen a topic which I hope can hold your interest in the summer. It will be on CYBER SECURITY.

This chosen topic is something you may not have covered at Key Stage 3 or 4. Alongside this topic, it will not be complete not to learn Computer Networks (learn at AS in lessons).

You are to prepare a 30 minute documentary video (eg. Panorama on tv) or a presentation (with explanation in notes pages) or a magazine article (eg. Times Magazine) on Cyber Security which will include the following content :

- What is Cyber Security?
- Why is Cyber Security policies essential in organisations?
- The importance of protection information for confidentiality, integrity, availability
- Discuss in details the Types of cyber security incidents :
 - Unauthorised access (eg. Hacking, escalation of privileges)
 - Information disclosure (eg. Personal information, government information)
 - Modification of data
 - Inaccessible data (eg. Account lockout, denial of service)
 - Destruction (eg. Malware, deliberate erasure)

- Theft (eg. Identify, finance, military service)
- Discuss in details the Threats to cyber security :
 - Vulnerabilities (system attacks, physical threats, environmental eg. Floods, natural disasters)
 - Accidental
 - Intentional
 - Organized crime
 - State sponsored (Eg. Spying, espionage)
- The characteristics and motivations of each of these types of attackers :
 - Hacktivist
 - Cyber criminal
 - Insider (eg. Disgruntled employee)
 - Script kiddie (eg. Bored youth)
 - Vulnerability broker (eg. Hacking as a business)
 - Scammers
 - Phishers
 - Cyber-terrorists
- Impacts of cyber security incidents :
 - Discuss five real-life examples of cyber security incidents which occur in the last few years and its impact to the affected organisations.
- Any other information you think is relevant and interesting on Cyber Security
- Finally, please include a list of all the sources you've used, and a brief comment evaluating which were most/least useful/reliable and why.

Assessment Criteria

Your work must be detailed suitable for post 16 students. Your transition work will be ***assessed in terms of research/ content/presentation/ effort***. Your work must demonstrate your passion to the topic and the commitment to the subject. It will be hard to do this if your transition is a last 24 hours job before the deadline.

Deadline – check out the school website – A Level section or check with teacher or Sixth Form Administrator – it should be in the first lesson in September 2020. To support you, check out another material on “Planning and preparing to write assignments” by University of Nottingham. (see end of document for electronic file)

Advice for the task / extra reading

- Useful websites :
 - <http://www.itgovernance.co.uk/what-is-cybersecurity.aspx>
 - <https://www.gov.uk/government/policies/cyber-security>
 - <http://www.bbc.co.uk/news/technology-28549494> (or google BBC cyber security)
 - <http://www.computerweekly.com/news/4500260419/Top-10-cyber-crime-stories-of-2015>
- You have the summer holiday to get this completed.
- Each student will need to give this completed work in **within two weeks of returning to school – date to be confirmed (week commencing the 1st September)** as these will be graded & assessed then in

terms of research/ content/presentation. This will comprise the feedback to parents on the initial parents evening.

- Spend as much time practising giving your presentation/magazine article/detailed video documentary as you do researching and writing it – I do not want you to stand at the front & read words from the slides!

Extension task

Play this Cyber Security game (you will need to create a login to save your game)

<http://www.pbs.org/wgbh/nova/labs/lab/cyber/>

To get this link, google “cyber security game”

Cybersecurity | NOVA Labs | PBS

www.pbs.org/wgbh/nova/labs/lab/cyber/ ▼

Take **cybersecurity** into your own hands. In this Lab, you'll defend a company that is the target of increasingly sophisticated cyber attacks. Your task is to ...

[Cyber 101](#) · [Educator Guide](#) · [About this Lab](#) · [Cyber Lab | NOVA Labs | PBS](#)

This document is also available electronically via Microsoft Teams.

Also check out at the same place this document : “Planning and preparing to write assignments” by University of Nottingham.

Source : <http://www.nottingham.ac.uk/studentsservices/documents/planning-and-preparing-to-write-assignments.pdf>

Task 2

Define and explain the purpose of :

- CPU

Can you research and give the names and specifications of two different types of CPU ?

- Mother Board
- RAM
- Power Supply

Task 3

In a paragraph clearly explain what

- Volatile
- and Non-Volatile Memory means.

Task 4

A game creation company, architect and finance officer in different companies have a budget of £400. Research and explain what Video Card would be best for their purposes

Specification for Course

Available at <https://www.ocr.org.uk/qualifications/cambridge-technicals/>

Documentaries /Films

- Ex Machina – (2015)
- The Matrix – (1999)
- Black Hat

Cybersecurity Documentaries

- We Are Legion: The Story of the Hacktivists (2012).
- Hacking Democracy (2006).
- The Secret History of Hacking (2001).
- Freedom Downtime (2001).
- The Hacker Wars (2014).
- Def Con: The documentary (2013).
- The Internet's Own Boy: The Story Of Aaron Swartz (2014).

Contact Details

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