

This handout contains information about the **Tech for Cyber Security Assembly**. Scan the QR code to download the **Tech for Cyber Security Assembly**. Scroll down the page and click on the red **Assemblies** slide tab.

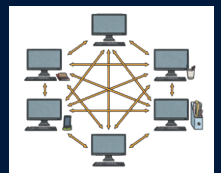


What Is Cyber Security?



Cyber security means keeping your information and devices safe on the Internet. We need cyber security because people called criminal hackers sometimes try to steal important information and money online.

What Is Hacking?



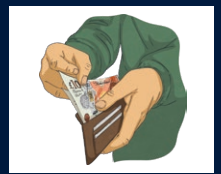
Hacking is using or taking information from computers without permission. Criminals hack computer systems or networks to steal money or valuable information from a person or business.

What Is Phishing?



Hackers sometimes try to trick people into giving them important personal information. This is called phishing. Phishing is where hackers send emails, text messages, social media messages or make phone calls pretending to be someone they are not, for example from a bank or a well known company. Hackers can use this information to access accounts in order to buy items or steal money. Sometimes phishing emails can also persuade someone to click a link that, once clicked, downloads a virus to the device. These viruses are designed to damage a device and give someone else access to the important information on it.

What Is a Cyber Attack?



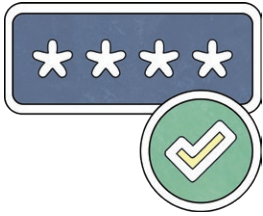
Hackers use cyber attacks to steal important information or money. Criminals hack into a computer system to steal or delete information. They then make businesses pay money to get their information back or fix the problem.

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What Technology Has Been Developed For Cyber Security?



Passwords and passcodes help us to keep our devices, information and money safe. Some important accounts like bank accounts use something called 2-step verification.



You get sent a text or an email with a code to use as well as your password. The code changes each time you access your account so it helps to keep your account safe from hackers. Face ID or thumbprint access uses biometric technology to make sure it's you trying to access an account and keep your information safe. Encryption hides important information by putting it into a secret code. Anti-virus software can also help people and businesses. This is a computer program that is designed to find, stop and get rid of computer viruses that criminal hackers sometimes use to steal information.



Careers in Cyber Security



Ethical hackers or penetration testers try to hack into systems with their permission to test their security. Their job would be to test if their security is good enough and then to tell the company where they need to improve it. Cyber security architects design and build cyber security systems that criminal hackers will find really tricky to crack. Cyber threat intelligence researchers search the Internet and look for signs that there's a new way of attacking computers, or that someone might be planning a cyber attack against a business.

Cyber security engineers build and look after tools that help to protect computer systems from criminal hackers and check for cyber attacks. Cyber forensic investigators look at when an attack is successful. They investigate what happened, how it happened and why. They are like detectives who try work out how the criminal hackers managed to do it. Cryptographers develop security systems and encryptions to keep information safe from criminal hackers.

Try This at Home

Ethical hackers make it harder for criminal hackers to commit crimes by learning to think and act like them.

Try and think like a criminal hacker to trick someone into giving you their personal information. You could:

- write an email to try and gather information from someone;
- act out a phone call a hacker might have with someone else.

Think about how a criminal hacker might act, what they might say and what information they might want.

Once you've done this and you have an understanding of how a criminal hacker's mind might work, can you help people spot a hacker on a phone call or a phishing email? What things should they look out for? What kind of things should they NEVER share? You could create a poster or perhaps a video.

