Cybersecurity Unit Plan - Google Site (in progress)

Google Drive of Resources Collected

Pre-work: Teachers will need to sign up for an educator account to have access to a cyber range to complete the labs from cyber.org (https://apps.cyber.org/apply) ADDED.

1. What is a Network?
    a. PBS Video
    b. Level 1 Networks Lesson 1 : Introduction to networks
    c. Level 1 Networks Lesson 2 : Components of a Network
2. What is the Internet?
    a. What is the Internet?
    b. The Internet: Wires, Cables & Wifi
        i. Discussion forum/Google Doc
    c. Submarine Cable Map
3. Internet Hardware
    a. Unit 3 Lesson 1 Computer Component Speed Dating Chart.pdf
    b. Unit 3 Lesson 1 Computer Component Speed Dating Profile sheet.pdf
    c. Unit 3 Lesson 1 Computer Component Speed Dating.pdf
        i. Discussed modifying the example above to focus on Internet Hardware
        ii. I didn't add any additional vocabulary words. But I have all of this information on this on the Google Site. I need to add the Internet terms to this list. DONE.
4. Network Topologies
    a. https://www.dnsstuff.com/what-is-network-topology
    b. Activity: Building a Network
5. What is the World Wide Web?
    a. Level 1 Internet WWW Lesson 2: The World Wide Web
6. How does an internet search work?
    a. The Internet: HTTP & HTML
    b. The Internet: How Search Works
    c. The Internet: IP Addresses & DNS
    d. Infographic assignment
        i. Model understanding of how the concepts above work.
        ii. Example: DNS Infographic
7. How information travels on the internet? - Carey, can you rename the section this instead of Traveling Information on the Internet DONE
    a. The Internet: Packets, Routing & Reliability
        i. I added an activity to this on the Google Website.
    b. Cisco Packet Tracer(spelling Tracer) - Spelling on the sidebar DONE
        i. I found this information and added this to the Google Site
    c. Wireshark

i. Wireshark Lab Video
ii. Done
iii. Hide and Seek Lesson Plan.pdf - Done

d. The Internet: Encryption & Public Keys
i. Encryption/Decryption activity I added an activity I found.

8. Your Data Your Network -Securing your information on the internet
a. Cyber Hygiene: Privacy & Security
i. Password Cracking Tool
1. Coding assignment (this can be used as an extension activity) https://github.com/jamierachael/Password-Generator
ii. Google Privacy Policy Assignment- scroll down - from CodeHS
iii. Assignment:: Data Security Checklist for Public and Private Networks

b. Social Media
i. Digital Footprint and Reputation
1. Google Search Assignment- scroll down - from CodeHS
2. Assignment: Digital Footprint Investigation: Uncovering 'Del…

9. Cybersecurity
a. OSI Model
i. OSI-Model-cheatsheet-network-walks-cisco-ccna.pdf

b. TCP/IP Model
c. UDP
d. The Internet: Cybersecurity & Crime
i. OSI Model and Attacks.jpg
1. Case Study Malware
2. Phishing Lab
a. Phishing and Spam Powerpoint
b. Phishing and Spam Teacher notes
c. Tie this into text messages and emails as well Done.
3. Denial of Service Lab
a. DoS and DDoS Powerpoint
b. DoS and DDoS Teacher notes
c. Playstation Case Study

10. Culminating Projects
a. STIG Assessment Windows 7, Kali Linux, and Windows Server 22 - Virtual Lab
b. CVE Project - RING Resources (https://www.caecommunity.org/initiative/k12-ring)
i. How it impacts them

~~c. Anomaly detection?~~

d. Data breaches and or security issues, find articles or videos
i. Tik-Tok
1. https://apnews.com/article/tiktok-ceo-shou-zi-chew-security-risk-cc36f36801d84fc0652112fa461ef140

2. https://www.defense.gov/News/News-Stories/Article/Article/3354874/leaders-say-tiktok-is-potential-cybersecurity-risk-to-us/
3. https://www.tiktok.com/safety/en-us/privacy-and-security-on-tiktok/

ii. Snapchat

1. https://firewalltimes.com/snapchat-data-breach-timeline/#:~:text=In%20January%202014%2C%20news%20broke,numbers%20of%20millions%20of%20users.
2. https://businesshelp.snapchat.com/s/article/ccpa?language=en_US
3. https://privacy.commonsense.org/privacy-report/Snapchat

iii. Cash App

1. https://www.usatoday.com/story/money/2022/04/06/cash-app-data-breach/9490327002/
2. https://www.upguard.com/blog/how-did-the-cash-app-data-breach-happen
3. https://cash.app/legal/us/en-us/privacy

iv. Apple Pay

1. https://support.apple.com/en-us/HT203027
2. https://cybernews.com/news/apple-pay-visa-bug-allows-hacking-contactless-payments/

e. Assignment: Public Service Announcement - Social media awareness/data

11. References - Done!

Engagement:

- Snowden Cube Scene
- A Long Day (with no Cybersecurity)
- How private is your personal information?

https://youtu.be/Zbqo7MGVElw

- Cyber Security | Short Film

https://youtu.be/QeOsfXikWIQ

- This is how hackers hack you using simple social engineering
- What is The Matrix? | The Matrix [Open Matte]
- matrix - neo and cypher talk
- Turing breaks Enigma – The Imitation Game (2014)

Assignment

Google search assignment



Search for yourself on Google (or another search engine). If you have a common name, you might need to search for your name and the city you live in. For example `Joanne Smith San Francisco`.

1. What comes up in your Google search?
2. What was the most surprising thing that you noticed?
3. What are some actions you should take to maintain a positive digital footprint?

Google Privacy policy assignment

https://policies.google.com/privacy#infocollect

Read through the “Information We Collect” section of Google Privacy Policy. Consider the following questions:

1. What is Google’s reasoning for collecting your personal information?
2. How does Google get information from you?
3. How can Google get your location information?
4. Can Google recognize your personal smartphone or computer?

GenCyber UNG Resources
tinyurl.com/UNGAGENT2023