Tab 1

Lesson Plan: CyberAttacks

Information

Lesson Title: CyberAttacks

Lesson Description: This lesson plan was developed for 9-12. This lesson was integrated into CSP or CS 1 or 2. Prior to this lesson, students will have covered Digital Citizenship.

Lesson # 10

Vocabulary: Malware, virus, ransomware, spyware, phishing, firewall

Standards:

3A-NI-06 Recommend security measures to address various scenarios based on factors such as efficiency, feasibility, and ethical impacts. (P3.3)

3A-IC-24 Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2)

3A-IC-29 Explain the privacy concerns related to the collection and generation of data through automated processes that may not be evident to users. (P7.2)

3A-IC-30 Evaluate the social and economic implications of privacy in the context of safety, law, or ethics. (P7.3)

Lesson Objectives:

Students will be able to:
- Identify and define different types of cyberattacks (malware, viruses, ransomware, spyware, phishing)
- Explain the importance of preventative measures like antivirus software, updates, HTTPS, and firewalls
- Analyze real-world examples of phishing attacks and develop strategies for identifying suspicious online activities

Activities:

Lesson Opening (Warm-up)

Turn and Share:
1. Can you think of any ways people might try to trick you into giving them your personal information online?
2. What information do you think is the most important to protect? Why? List at least two examples.

Main Activities

1. Guided practice (I do, we do)

Read through the Protecting Your Computer interactive slide deck. [15 mins]

Watch the Phishing for Your Info connection video and complete the corresponding free-response item. [10 mins]

2. Independent practice (you do)

Discuss the case with students and have them connect in small groups of 2-3: [5 minutes]

What would you have done? Have you ever received a suspicious text or phone call?

Read the Cyber Impacts connection article. [10 mins]

Closure (Wrap-Up)

Write a 3-5 sentence summary of what you learned from the Cyber Impacts article. [at home.