

Cybersecurity CyberSnack: Things In Common

Time 10-15 min

What You'll Need: [Things in Common Handout](#)



NICE FOCUS: Cybersecurity Career Awareness

Learning Objectives: I can explain the connection between cybersecurity careers and the cybersecurity techniques, strategies, and the skills needed for these careers such as: logical thinking, need for people who think “out of the box,” problem solving, and recognizing patterns.

Essential Question: What do you think are the essential skills needed in a cybersecurity career?

Key Words: cybersecurity, logical thinking, thinking outside the box, problem solving, pattern recognizing, malware, virus, zombies, worm, cookies, phishing

Activity Steps

Teacher Action	Student Action
<p>1. Think, Ink, and Speak: Distribute handout and have students</p> <ol style="list-style-type: none"> 1) Think: give students 2-3 minutes to think of responses to questions and ask clarification questions if need be 2) Ink: have students write down responses to questions 3) Speak: Have students share responses in teacher chosen method <p>Answers:</p> <p>Worm: Computer worms can wreak havoc on your computer network, and work to spread the destruction to others. A worm is a man-made, malicious software program whose primary function is to infect other computers while remaining active on infected systems. [What is a Computer Worm and How Does it Work?]</p> <p>Zombie: AKA Botnets- is a collection of hacked computers that are connected together so an attacker(s) can attack other parties, often without the user’s awareness or consent. Hence, why they are also called “Zombie Computers” [Zombie Computers, Botnets, and Denial of Service Attacks Cybersecurity Insights #16]</p> <p>Cookie: A cookie is a piece of data from a website that is stored within a web browser that the website can retrieve at a later time. Cookies are used to tell the server that users have returned to a particular website. [What Are Cookies? And How They Work Explained for Beginners! - YouTube]</p>	<ol style="list-style-type: none"> 1. Think of possible answers and ask for clarification as needed. Then write down possible answers to the questions. Students then share responses in teacher chosen method 2. Students think, record answer, and share answer in the teacher's preferred method. 3. Students listen and take notes if need be 4. Students review their responses from reflection questions and change or modify their responses as needed

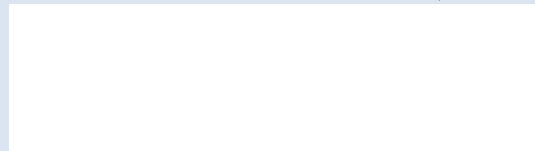
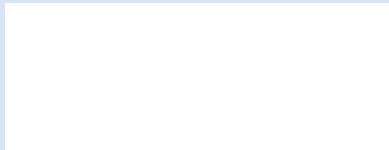
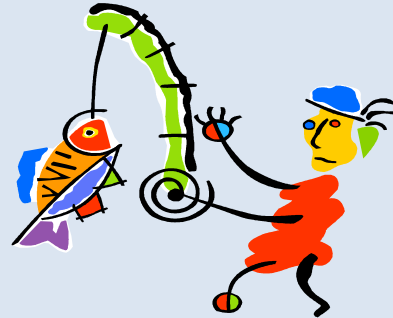
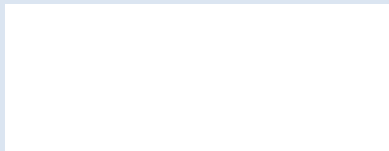
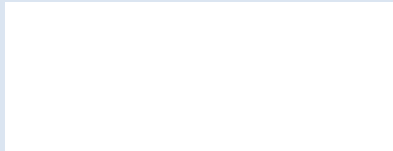
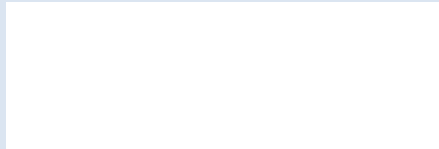


Virus: Is a malicious smaller piece of code that when executed, replicates itself by modifying other computer programs and applications by inserting its own code [[How Do Viruses and Malware Affect Your Computer?](#)]

Phishing: Phishing is a method of trying to gather personal information using deceptive e-mails and websites. Scammers use emotional appeals to make users click the corrupted links [[What is phishing? Learn how this attack works](#)]

2. **Reflection Question:** Follow same format as Think, Ink, Speak- *What do you think is the connection between the activity you just did and a cybersecurity career?*
3. **Explain context:** Cybersecurity is the practice of deploying people, policies, processes and technologies by designing, developing, implementing, and maintaining defensive and offensive strategies to protect organizations, their critical systems and sensitive information from digital attacks. Discuss the connection between careers in cybersecurity and the skills needed such as: logical thinking, need for people who think “out of the box,” problem solving, recognizing patterns.
4. **Reflect:** Have students reflect on written responses and change or modify their answers as needed.

What do these things have in common



Cybersecurity Career Awareness Week (CCAW) nist.gov/nice/ccaw

