

Name: _____ Date: _____

Answer Key: Outsmart the Breach: Your 8th Grade Cybersecurity Challenge

Evaluate zero-trust architecture, dissect social engineering tactics, and defend against advanced persistent threats in this high-stakes digital security simulation.

1. You receive a 'spoofed' email that looks exactly like your school's portal, but the URL contains a subtle typo. This is an example of which specific psychological manipulation technique?

Answer: A) Spear Phishing

Spear phishing is a targeted attempt to steal sensitive information by masquerading as a trustworthy entity through electronic communications.

2. The 'Zero Trust' security model operates on the principle that no user or device, whether inside or outside the network perimeter, should be granted access until verified.

Answer: A) True

Zero Trust is a strategic initiative that prevents data breaches by eliminating the concept of trust from an organization's network architecture.

3. In the context of protecting web traffic, what does the 'S' in HTTPS stand for, indicating that your data is being sent over an encrypted connection?

Answer: B) Secure

Hypertext Transfer Protocol Secure (HTTPS) uses TLS/SSL encryption to protect communications between a browser and a server.

4. Which of the following describes a 'Man-in-the-Middle' (MitM) attack specifically occurring on a public Wi-Fi network?

Answer: B) A hacker intercepts data packets between your device and the router.

A MitM attack happens when a perpetrator positions themselves in a conversation between a user and an application to eavesdrop or impersonate one of the parties.

5. A type of malicious software that encrypts a victim's files, with the attacker demanding payment to provide the decryption key, is known as ____.

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Answer: C) Ransomware

Ransomware is a sub-category of malware designed to deny access to a computer system or data until a ransom is paid.

6. Using a Virtual Private Network (VPN) on public Wi-Fi encrypts your data, making it unreadable to anyone trying to sniff the network.

Answer: A) True

VPNs create a secure tunnel for your data, protecting your privacy and security by masking your IP address and encrypting your traffic.

7. Which component of the CIA Triad is compromised if a hacker modifies the grades in a school's database without authorization?

Answer: B) Integrity

Integrity involves maintaining the consistency, accuracy, and trustworthiness of data over its entire life cycle.

8. If you notice your computer is running unusually slow and your webcam light turns on randomly, you might be a victim of a _____, which allows a hacker to control your PC remotely.

Answer: D) RAT (Remote Access Trojan)

A Remote Access Trojan (RAT) is malware that includes a back door for administrative control over the target computer.

9. Multi-Factor Authentication (MFA) is only necessary for adults with bank accounts, not for teenagers using social media or gaming platforms.

Answer: B) False

MFA is a critical security layer for everyone, as social media and gaming accounts are high-value targets for identity theft and virtual asset theft.

10. What is the most secure way to manage unique, highly complex passwords for 20 different online accounts?

Answer: C) Utilize an encrypted digital password manager.

Password managers use high-level encryption to store credentials, allowing users to use complex, unique passwords without needing to memorize each one.