

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.