

Name: _____

Date: _____

Score: _____

Online Scams & Social Engineering Protection Guide

Email phishing, spoofed domains, vishing, support scams, out-of-band verification, BEC

ONLINE SCAMS LEARNING OVERVIEW

SECURED

DATA ENCRYPTION

256-bit AES Standard

COMPLIANT

GLOBAL STANDARDS

GDPR & CCPA Frameworks

ZERO-TRUST

ACCESS POLICY

Multi-Factor Authentication

Welcome! This activity packet guides you through online scam defense. You will explore fake phishing websites, social engineering tactics, support scams, wire fraud vectors, and payment verification methods.

WORKSHEET CHECKPOINTS

- ☐ **Part 1-4:** Master cybersecurity and threat prevention.
- ☐ **Part 5-7:** Solve crossword & word search puzzles.
- ☐ **Part 8-9:** Solve case studies & cipher challenge.
- ☐ **Part 10:** Review basic & advanced FAQ pages.
- ☐ **Part 11:** Explore 10 interesting real-world facts.

Open the VPN.com Cybersecurity Guide

URL: <https://www.vpn.com/cybersecurity/online-scams/>

Your Online Scam Protection Learning Roadmap

- Identify common indicators of support scams and typosquatting domains.
- Implement email verification protocols (SPF, DKIM, DMARC) against spoofing.
- Establish out-of-band transaction verification to prevent business wire fraud.

ONLINE SCAMS GUIDE INSTRUCTIONS

Answer the multiple choice and true/false questions, complete the fill-in-the-blank sentences using the word bank, match definitions, and solve the crossword and word search puzzles. Apply your knowledge to online scam protection.

ONLINE SCAMS & SOCIAL ENGINEERING PROTECTION (INTRODUCTION)

Online scams exploit human behavior through phishing, support pop-ups, vishing, and wire fraud. Enforcing out-of-band transaction verification protocols and SPF/DKIM/DMARC domain rules stops social engineering vectors at the gateway.

READ EACH CHECKPOINT CAREFULLY AND SELECT OR WRITE THE CORRECT RESPONSE.

Checkpoint 1: Multiple Choice Challenge

1 What is the primary indicator of a support scam?

- ☐ A. A pop-up claiming your system is infected and demanding you call a phone number
- ☐ B. An automated security update downloaded from an official registry
- ☐ C. A password manager refusing to fill credentials on a corporate domain
- ☐ D. A background file backup running on an external drive configuration

2 Which technique uses spoofed sender domains to steal bank details?

- ☐ A. Email phishing
- ☐ B. Port scanning
- ☐ C. Memory injection
- ☐ D. Cryptographic shredding

3 What represents wire transfer fraud?

- ☐ A. Tricking victims into sending money to fake corporate accounts using social engineering
- ☐ B. Encrypting system databases using ransomware payloads
- ☐ C. Querying databases via SQL injection commands
- ☐ D. Backing up system files to offline storage disks

4 Why do scammers create fake shopping websites?

- ☐ A. To steal credit card details and payment credentials from buyers
- ☐ B. To host sandboxed malware analysis database tables
- ☐ C. To speed up DNS name migration reindexing cycles
- ☐ D. To bypass geoblocking rules on public Wi-Fi networks

5 What does vishing mean?

- ☐ A. Voice phishing scams over phone networks to steal credentials
- ☐ B. Scanning local networks for unsecured system devices
- ☐ C. Restoring system databases after an unauthorized breach
- ☐ D. Running untrusted code inside secure virtual containers

Checkpoint 2: True or False Challenge

6 Question 6

Phishing scams only target end-users, never executive whaling targets.

☐ True ☐ False

7 Question 7

Spoofed domains often use slight typos (like amaz0n.com) to mimic trusted brands.

☐ True ☐ False

8 Question 8

Support scams can be resolved by granting remote access to the caller.

☐ True ☐ False

9 Question 9

Social engineering exploits human psychology like fear and urgency to bypass security rules.

☐ True ☐ False

10 Question 10

Wire transfer requests should always be verified using out-of-band communication channels.

☐ True ☐ False

Checkpoint 3: Key Term Insertion

Read each sentence below and fill in the blank with the correct term from the Word Bank.

1. Fraudulent emails tricking users are called _____.
2. Web addresses that mimic trusted brands are _____.
3. Voice scams targeting bank details are called _____.
4. A pop-up demanding money for virus removal is a support _____.
5. Confirming a payment request requires out-of-band _____.
6. Redirecting business transactions to thief accounts is _____.

VOCABULARY WORD BANK

PHISHING
VERIFICATION

SPOOFED
WIRE

VISHING

SCAM

Write your answers here:

- | | | | |
|----|----------------------|----|----------------------|
| 1. | <input type="text"/> | 2. | <input type="text"/> |
| 3. | <input type="text"/> | 4. | <input type="text"/> |
| 5. | <input type="text"/> | 6. | <input type="text"/> |

Checkpoint 4: Security Concept Match

DEFINITION MATCHING

Match each vocabulary term on the left with its correct definition on the right by writing the corresponding letter (A-H) in the fillable input box.

PHISHING

A

Fraudulent email campaigns designed to steal login credentials and passwords. (A)

SPOOFED

B

Mimicked email sender or website address designed to look legitimate. (B)

VISHING

C

Fraudulent voice calls designed to steal credentials and account details. (C)

SCAM

D

Fraudulent scheme designed to steal money or access credentials from victims. (D)

VERIFICATION

E

Confirming payment details using a trusted secondary contact method. (E)

WIRE

F

Fraudulent redirection of bank transactions to criminal accounts. (F)

WHALING

G

Targeted phishing attacks aiming to steal credentials from C-level executives. (G)

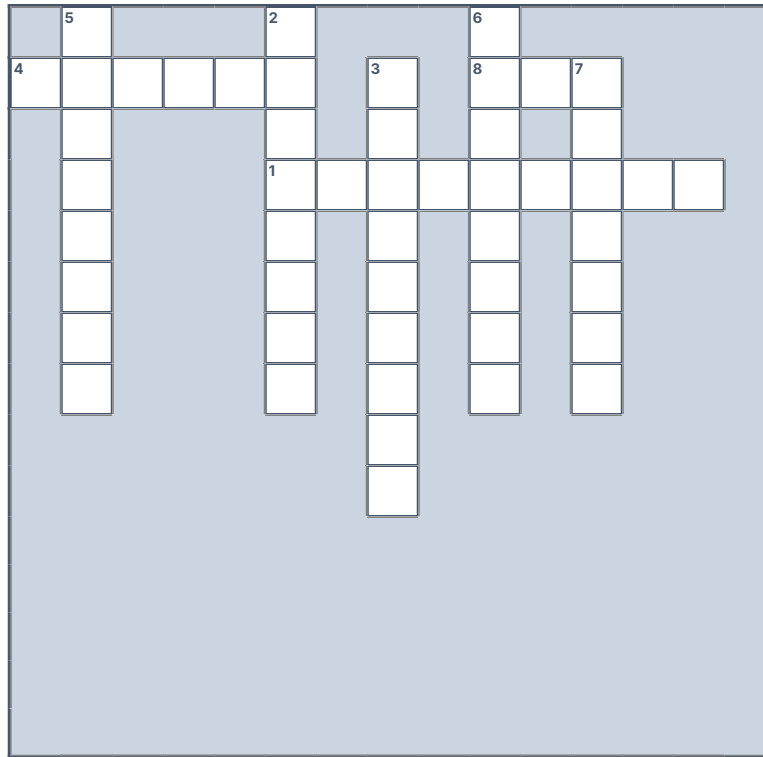
SMISHING

H

Sending scam text messages to steal mobile account credentials. (H)

Checkpoint 5: Crossword Puzzle

Solve the crossword puzzle by typing letters into the active white boxes. The numbers correspond to the clues below.



ACROSS

1. Process of wrapping data packets inside other packets (9)
4. Remote server that routes traffic and hides your IP (6)
8. Internet Service Provider, logs traffic unless encrypted (3)

DOWN

2. Rules determining how data is sent and encrypted (8)
3. Rate of data transfer across a path (9)
5. Blocking site access based on location (8)
6. Security system that monitors and blocks traffic (8)
7. State of being free from tracking or surveillance (7)

Checkpoint 5 Alternative: Accessible Crossword Clues

Screen-reader and keyboard users can type the crossword answers directly in the text fields below.

ACROSS CLUES

1 Across: Agency representing clients to recover domain assets hijacked in phishing scams (9 letters):

4 Across: Neutral safety account protecting buyers from fake escrow portal scams (6 letters):

8 Across: Corporate naming asset mimicked by scammers using typo-squatted domains (5 letters):

DOWN CLUES

2 Down: Financial assessment of losses and recovery costs after corporate wire fraud (9 letters):

3 Down: Stealth registration setup used by scammers to hide WHOIS contact records (7 letters):

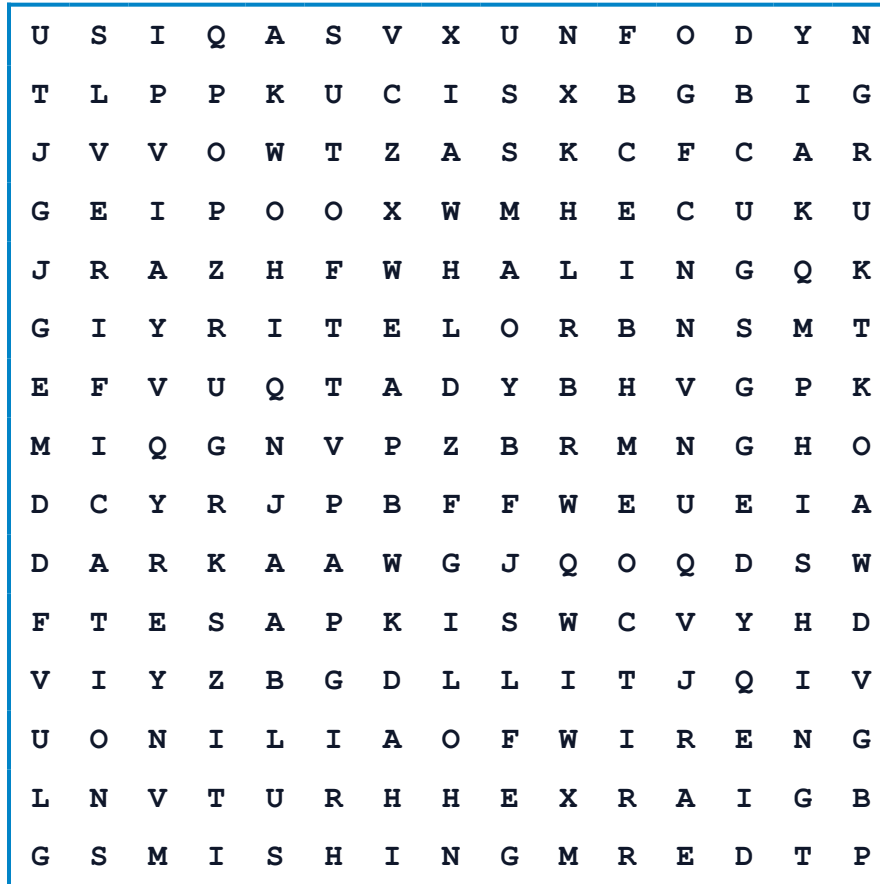
5 Down: Entity where spoofed domain names must be reported for rapid deletion (9 letters):

6 Down: Authorization passcode stolen by scammers to hijack domain assets (7 letters):

7 Down: Online bidding forum where typo-squatted trademark domains are sold (7 letters):

Checkpoint 6: Hidden Word Search

Find the 8 key vocabulary terms hidden in the grid below. Words can be horizontal, vertical, or diagonal.



VOCABULARY WORD LIST

PHISHING
VERIFICATION

SPOOFED
WIRE

VISHING
WHALING

SCAM
SMISHING

Checkpoint 6 Alternative: Accessible Vocabulary Matching

Match each of the 8 vocabulary terms from the Word Search to its correct definition by writing the letter (A-H) in the blank space.

VOCABULARY TERMS

- A. PHISHING
- B. SPOOFED
- C. VISHING
- D. SCAM
- E. VERIFICATION
- F. WIRE
- G. WHALING
- H. SMISHING

DEFINITIONS & MATCH FIELDS

- 1. Fraudulent email campaigns designed to steal login credentials and passwords.
- 2. Mimicked email sender or website address designed to look legitimate.
- 3. Fraudulent voice calls designed to steal credentials and account details.
- 4. Fraudulent scheme designed to steal money or access credentials from victims.
- 5. Confirming payment details using a trusted secondary contact method.
- 6. Fraudulent redirection of bank transactions to criminal accounts.
- 7. Targeted phishing attacks aiming to steal credentials from C-level executives.
- 8. Sending scam text messages to steal mobile account credentials.

Checkpoint 7: Scrambled Word Challenge

Unscramble the letters below to reveal key cybersecurity concepts and terms. Write your answers in the input boxes provided.

1. G I S H P H I N

5. I F I C A N R E I O T V

2. O O P S E D F

6. E R I W

3. G I S H V I N

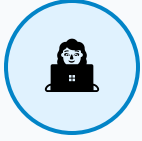
7. I N G W A L H

4. M A C S

8. G I S H M I N S

Checkpoint 8: Cybersecurity Case Studies

Apply the concepts you have learned to solve the real-world scenarios below.



CASE STUDY 1: CORPORATE WIRE TRANSFER SCAM PREVENTION

Scenario: A finance department receives an urgent email from a spoofed vendor address, requesting that future invoice wires be directed to a new routing number.

Discussion Question: Outline the wire fraud verification policy, and specify email authentication blocks.



CASE STUDY 2: EXECUTIVE WHALING PHISHING INCIDENT

Scenario: An executive clicked a phishing link claiming to hold a secure board-meeting document, entering their primary corporate credentials on a spoofed portal.

Discussion Question: Detail the incident response steps, and explain how to audit executive logins.

Final Challenge: Decrypting the Cipher

A cybersecurity professional protects network assets from online threat actors. Use the Letter-to-Number key below to decrypt the message by writing the matching letters in the blank spaces.

LETTER-TO-NUMBER ENCRYPTION KEY

A=1	B=2	C=3	D=4	E=5	F=6	G=7	H=8	I=9	J=10	K=11	L=12	M=13
N=14	O=15	P=16	Q=17	R=18	S=19	T=20	U=21	V=22	W=23	X=24	Y=25	Z=26

Decoded cybersecurity message:

TIP: EACH NUMBER REPRESENTS THE POSITION OF THAT LETTER IN THE ALPHABET (E.G. 1 = A, 2 = B, 26 = Z).

Checkpoint 10: Basic Cybersecurity FAQs (Part A)

Review common questions and answers regarding online threat mitigation.

Q1: What is an online scam?

A fraudulent scheme using digital channels to trick victims into sending money or giving up personal credentials.

Q2: What is the main indicator of email phishing?

A message claiming urgency (like account suspension) and directing you to a link that doesn't match the official domain.

Q3: What is typosquatting?

Registering domains with common typos of popular brands (like amaz0n.com) to host fake phishing sites.

Q4: What is a support scam?

A pop-up claiming your PC is infected, directing you to call a number and pay for fake cleanup software or remote access services.

Q5: What is vishing?

Phishing attacks using voice phone calls to trick victims into giving bank account or login details.

Checkpoint 10: Basic Cybersecurity FAQs (Part B)

Review common questions and answers regarding online threat mitigation.

Q6: What does wire fraud mean?

Redirection of payment transactions to scam accounts by impersonating vendors or executives.

Q7: What is whaling?

A highly targeted form of spear phishing aiming directly at high-value targets like C-level corporate executives.

Q8: What is smishing?

Scam text messages sent to mobile devices, containing link prompts to fake portals or tracking updates.

Q9: Why is out-of-band verification critical?

It confirms transaction details using a separate communication channel (like a phone call), avoiding compromised email threads.

Q10: How does a fake escrow scam work?

Scammers create a spoofed escrow site, claiming funds are held securely, then steal the buyer's wire deposit.

Checkpoint 11: Advanced Security FAQs (Part A)

Explore advanced technical aspects of security frameworks, malware analysis, and data compliance.

Q1: How do scammers use BEC (Business Email Compromise) to execute wire fraud?

They hijack a legitimate employee's email account, monitor invoice threads, and send updated billing details with scam bank accounts.

Q2: What is the risk of IDN homograph attacks in online scams?

Using non-ASCII characters that look identical to normal letters (e.g., Cyrillic 'a') to register spoofed domains that mimic real brands.

Q3: Why is email header inspection important in scam detection?

It reveals the actual origin server IP and SPF/DKIM validation status, showing if the sender domain is forged.

Q4: How do support scammers exploit remote desktop software?

They use utilities like AnyDesk or TeamViewer to connect to the victim's device, plant malware, and steal saved passwords.

Q5: What is the goal of advance-fee scams?

Tricking victims into paying processing fees upfront in exchange for a large financial reward that does not exist.

Checkpoint 11: Advanced Security FAQs (Part B)

Explore advanced technical aspects of security frameworks, malware analysis, and data compliance.

Q6: How do scammers use social media profiling for targeted phishing?

They compile corporate organizational structures and employee names to draft convincing spear-phishing emails.

Q7: Why do fake web shops offer steep discounts?

To lure buyers into entering their credit card details, capturing credentials for reuse or resale on carding forums.

Q8: How do DMARC records block phishing scams?

DMARC instructs email servers to reject messages that fail SPF or DKIM checks, preventing spoofed emails from reaching corporate inboxes.

Q9: What is the threat of credential harvesting portals?

Spoofed landing pages designed to look exactly like Microsoft 365 or Google workspaces, stealing login credentials as they are entered.

Q10: How do security teams report and disable scam domains?

By submitting evidence of fraud to the registrar's abuse email, hosting provider, and Google Safe Browsing registry.

Part 11: 10 Real-World Cybersecurity Facts & Insights

Review real-world facts regarding security breaches, defense mechanisms, and compliance standards.

1. SECURITY INSIGHT

Phishing represents the start point for over 90% of corporate scams and network security breaches.

2. SECURITY INSIGHT

BEC (Business Email Compromise) wire scams account for over \$2 billion in annual losses globally.

3. SECURITY INSIGHT

Typo-squatted domains are registered by scammers within minutes of major brand launch announcements.

4. SECURITY INSIGHT

Technical support scams target senior demographics, stealing millions in fake diagnostic support fees.

5. SECURITY INSIGHT

Homograph attacks look identical in browser address bars unless the browser displays punycode configurations.

6. SECURITY INSIGHT

SMS text scams (smishing) have higher open rates than email phishing, increasing the speed of credential theft.

7. SECURITY INSIGHT

Whaling attacks target executive emails because they control access to large payment wire transfers.

8. SECURITY INSIGHT

Out-of-band payment validation prevents over 95% of business email compromise wire fraud losses.

9. SECURITY INSIGHT

Fake escrow platforms are a leading scam vector in secondary domain transactions, capturing wires.

10. SECURITY INSIGHT

Google Safe Browsing flags and blocks tens of thousands of newly created scam domains daily.

Technical References & Sources

The study guide and interactive puzzles are compiled from global NIST, OWASP, and data privacy compliance standards.

SCHOLARLY & INDUSTRY REFERENCES

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Answer Key: Checkpoint 1 - Multiple Choice

1 Brokerage Function

BROKERAGE

Correct Answer: A

TEACHING NOTE

Domain brokers act as confidential negotiators representing buyers and sellers to reach fair market transactions.

Citation: ICANN Transfer Policy [Ref 1].

2 Stealth Strategy

STEALTH

Correct Answer: A

TEACHING NOTE

Stealth acquisition conceals corporate buyer identity to prevent sellers from inflating asking prices.

Citation: Escrow.com Protocol [Ref 7].

3 Escrow Protection

ESCROW

Correct Answer: A

TEACHING NOTE

Licensed third-party escrow holds funds safely until ownership transfer verification is complete.

Citation: Escrow.com Protocol [Ref 7].

4 Domain Appraisal

VALUATION

Correct Answer: A

TEACHING NOTE

Short 2-letter and 1-word .com domains carry extreme global brand scarcity and liquidity.

Citation: WIPO UDRP Guide [Ref 3].

5 Dispute Resolution

UDRP POLICY

Correct Answer: A

TEACHING NOTE

ICANN's Uniform Domain-Name Dispute-Resolution Policy (UDRP) governs administrative trademark disputes.

Citation: WIPO Dispute Rules [Ref 2].

Answer Key: Checkpoint 2 - True or False

6 Confidential NDAs

NDAS

Correct Answer: False

TEACHING NOTE

Professional domain brokers operate under non-disclosure agreements to protect buyer corporate strategy.

Citation: CIS Controls [Ref 8].

7 Escrow Delivery

ESCROW

Correct Answer: True

TEACHING NOTE

Escrow holding accounts disburse funds only after full domain ownership transfer is verified by the buyer.

Citation: Escrow.com Protocol [Ref 7].

8 Digital Real Estate

ASSETS

Correct Answer: False

TEACHING NOTE

Short 2-letter and 3-letter .com domains function as high-value, liquid digital property assets.

Citation: NIST Guidelines [Ref 9].

9 Stealth Negotiation

STRATEGY

Correct Answer: True

TEACHING NOTE

Direct corporate buyer outreach often causes sellers to inflate asking prices significantly.

Citation: WIPO UDRP Guide [Ref 3].

10 EPP Authorization

EPP CODE

Correct Answer: True

TEACHING NOTE

EPP codes are unique security passcodes generated by registrars to authorize domain transfers.

Citation: IETF RFC 5730 [Ref 4].

Vocabulary Keys & Grading Rubric

Instructor Grading Rubric: Award 1 point for each correct matching (8 points total) and context term (6 points total).

CHECKPOINT 4: CONCEPT MATCH KEY

A PHISHING

B SPOOFED

C VISHING

D SCAM

E VERIFICATION

F WIRE

G WHALING

H SMISHING

CHECKPOINT 3: KEY TERM KEY

1 PHISHING

2 SPOOFED

3 VISHING

4 SCAM

5 VERIFICATION

6 WIRE

DISCUSSION NOTES FOR INSTRUCTORS

Threat Landscape:

Verify that students understand how malware, phishing, and zero-day attacks target and disrupt network defenses.

Defense Controls:

Emphasize the deployment of network firewalls, sandbox execution, behavior scanners, and multi-factor authentication (MFA).

Regulatory Compliance:

Highlight user consent, data minimization, encryption at-rest and in-transit, and global frameworks like GDPR/CCPA.

Puzzles Keys & Instructor Notes

WORD SEARCH SOLUTION

U	S	I	Q	A	S	V	X	U	N	F	O	D	Y	N
T	L	P	P	K	U	C	I	S	X	B	G	B	I	G
J	V	V	O	W	T	Z	A	S	K	C	F	C	A	R
G	E	I	P	O	O	X	W	M	H	E	C	U	K	U
J	R	A	Z	H	F	W	H	A	L	I	N	G	Q	K
G	I	Y	R	I	T	E	L	O	R	B	N	S	M	T
E	F	V	U	Q	T	A	D	Y	B	H	V	G	P	K
M	I	Q	G	N	V	P	Z	B	R	M	N	G	H	O
D	C	Y	R	J	P	B	F	F	W	E	U	E	I	A
D	A	R	K	A	A	W	G	J	Q	O	Q	D	S	W
F	T	E	S	A	P	K	I	S	W	C	V	Y	H	D
V	I	Y	Z	B	G	D	L	L	I	T	J	Q	I	V
U	O	N	I	L	I	A	O	F	W	I	R	E	N	G
L	N	V	T	U	R	H	H	E	X	R	A	I	G	B
G	S	M	I	S	H	I	N	G	M	R	E	D	T	P

CROSSWORD SOLUTION

	5	G				2	P				6	F			
4	S	E	R	V	E	R		3	B		8	I	S	7	P
		O				O			A			R		R	
		B				1	T	U	N	N	E	L	I	N	G
		L				O			D			W		V	
		O				C			W			A		A	
		C				O			I			L		C	
		K				L			D			L		Y	
									T						
									H						

INSTRUCTOR GUIDE FOR CROSSWORD SOLUTIONS

ACROSS CLUES

- 1 Across:** **TUNNELING** Process of wrapping data packets. (3, 5)
- 4 Across:** **SERVER** Remote computer routing traffic. (1, 0)
- 8 Across:** **ISP** Internet Service Provider. (1, 9)

DOWN CLUES

- 2 Down:** **PROTOCOL** Rules determining data transmission. (0, 5)
- 3 Down:** **BANDWIDTH** Rate of data transfer. (1, 7)
- 5 Down:** **GEOBLOCK** Location website restriction. (0, 1)
- 6 Down:** **FIREWALL** Security monitor barrier. (0, 9)
- 7 Down:** **PRIVACY** State of freedom from tracking. (1, 11)

Scrambled Words & Cipher Solution Key

Grading key for the vocabulary word unscramble activity and Secret Cipher Challenge.

WORD UNSCRAMBLE KEY

1. G I S H P H I N

PHISHING

5. I F I C A N R E I O T V

VERIFICATION

2. O O P S E D F

SPOOFED

6. E R I W

WIRE

3. G I S H V I N

VISHING

7. I N G W A L H

WHALING

4. M A C S

SCAM

8. G I S H M I N S

SMISHING

SECRET CIPHER CHALLENGE KEY

**"DETECT YOUR PHISHING OUTREACH WITH SCANNER
VERIFICATION"**

Domain Brokerage Case Studies Solution Key

A Case Study 1: Corporate Wire Transfer Scam Prevention

[Instructor Solution](#)

GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** A finance department receives an urgent email from a spoofed vendor address, requesting that future invoice wires be directed to a new routing number.
- **Recommended Strategy & Solution:** Enforce a dual-authorization policy for all payments. Implement out-of-band verification using a pre-saved phone number, and block spoofed domain emails at the gateway.

B Case Study 2: Executive Whaling Phishing Incident

[Instructor Solution](#)

GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** An executive clicked a phishing link claiming to hold a secure board-meeting document, entering their primary corporate credentials on a spoofed portal.
- **Recommended Strategy & Solution:** Isolate the executive's device. Reset all corporate session tokens and credentials. Review access logs for data egress, and implement hardware MFA on all logins.