



Spanish

Language scenario - Level 1



CYBER CRIME Level 1

Use your problem-solving, language and research skills to stop cyber criminals damaging critical infrastructure and extorting money from the UK.

After careful consideration and compliance with all of the necessary legality and proportionality checks that GCHQ must follow, government sign-off has been granted for GCHQ to monitor suspected cyber criminals.

Today's date is 30 October. The National Cyber Security Centre (NCSC) is helping to investigate two known cyber criminals, code-names GREEN SNOWMAN and TURBULENT RIVER. Previous information indicates that they are planning to conduct a large-scale cyber-attack in the UK imminently, but so far investigators have not been able to uncover any specific details.

In the past, GREEN SNOWMAN and TURBULENT RIVER have been known to use phishing techniques to extort money from their victims. They send links or attachments to the victim in an email, masquerading as someone they should trust. If the victim clicks on the link, or downloads or opens the attachment, they take over the victim's computer using ransomware. Ransomware is a form of malware that encrypts a victim's files. They then demand a ransom from the victim, but even if the victim pays, they don't restore access to their files.

The nationalities and locations of GREEN SNOWMAN and TURBULENT RIVER are not known, although they are thought to be from Central or South America due to some of the cultural references in their communications and given that they communicate in Spanish. They are particularly security-conscious and are known to encipher the most sensitive parts of their communications. They are also known to use veiled language. For example, in the past, they have used the term "party" to refer to a cyber-attack.

You are new to GCHQ and are working with a more experienced linguist but whose language is not Spanish. They have given you a message between GREEN SNOWMAN and TURBULENT RIVER to translate into English.



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The task is to find out:

1. Whether the message contains any information that may help the NCSC find out what the criminals are planning before anyone falls victim to their latest cyber-attack.

Remember, it is likely that some parts of the conversation have been enciphered.

To do this, you will need to:

- Identify any enciphered words;
- Decipher the enciphered words;
- Translate the conversation into English;
- Interpret the meaning of any veiled language by answering the comprehension questions.



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Stage 1: Identify the enciphered words

The more experienced linguist has given you the following piece of information.

Highlight any enciphered words.

GS: Hola. Estamos listos para la fiesta.

TR: Estupendo. ¿Cuándo será?

GS: El día de SAKXZUY.

TR: ¿Y a quién vas a invitar?

GS: A todos los empleados del TNY del XKOTU ATOJU.

TR: ¡Vaya! ¡Tanta gente!

GS: Sí. Cuantas más invitaciones enviemos, más dinero ganaremos.

TR: ¡Ojalá! ¿Cuánto costará la entrada?

GS: SOR ROHXGY.

TR: Vale. Mándame un mensaje cuando hayas enviado las invitaciones.

GS: De acuerdo.



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Stage 2: Decipher the enciphered words

GREEN SNOWMAN sent this email to TURBULENT RIVER last week with the subject "Caesar":

¡Hola amigo!

Aquí tiene lo que acabamos de discutir:

G	H	I	J	K	L	M	N	O	P	Q	R	S
A	B	C	D	E	F	G	H	I	J	K	L	M

T	U	V	W	X	Y	Z	A	B	C	D	E	F
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Hasta luego.

Could this help you to decipher the enciphered words in the conversation to the left?

S	A	K	X	Z	U	Y

T	N	Y

X	K	O	T	U		A	T	O	J	U

S	O	R		R	O	H	X	G	Y



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Stage 3: Translate the conversation into English

Now that you have deciphered the words, enter them into the gaps below.

GS: Hola. Estamos listos para la fiesta.

TR: Estupendo. ¿Cuándo será?

GS: El día de _____.

TR: ¿Y a quién vas a invitar?

GS: A todos los empleados del _____ del _____.

TR: ¡Vaya! ¡Tanta gente!

GS: Sí. Cuantas más invitaciones enviemos, más dinero ganaremos.

TR: ¡Ojalá! ¿Cuánto costará la entrada?

GS: _____.

TR: Vale. Mándame un mensaje cuando hayas enviado las invitaciones.

GS: De acuerdo.



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Now, translate the whole conversation into English here:

GS:

TR:

GS:

TR:

GS:

TR:

GS:

TR:

GS:

TR:

GS:



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Stage 4: Interpret the meaning of the conversation

Taking into consideration what you know about the cyber-criminals (see exercise instructions), answer the following questions:

- a) What is the "party" likely to refer to in this context?
- b) When is the "party" going to take place?
(Once you have deciphered this part of the conversation, research when this cultural event is online.)
- c) What date is the "día de muertos" traditionally celebrated?
- d) What are the "invitations" likely to be in this context?
- e) What is the "entrance fee" likely to be in this context?
- f) What does TURBULENT RIVER ask GREEN SNOWMAN to do when he has sent the "invitations"?
- g) Bearing in mind today's date (given at the beginning of the exercise), how long is there before the cyber-attack takes place?



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Stage 5: Optional expansion exercises

1. Use your answers to the comprehension questions above to write a short report to the NCSC detailing your findings.
2. Look up the NCSC online and find out more about what they do. The 'About NCSC' > 'What we do' section of their website contains a short video. What is the NCSC's aim?
3. In which country do people traditionally celebrate the Day of the Dead? How do they celebrate? How does this differ from Hallowe'en celebrations in the UK?
4. The NHS employs 1.5 million (1,500,000) people.
 - a) If only 1% of NHS employees click on the link containing the ransomware, how many people will lose access to the files on their computers?
 - b) And of those people whose files are now encrypted, imagine that only 5% decide to pay the ransom. How many people would that be?
 - c) The ransom is £1000. How much money would the cyber-criminals make?
5. What kind of cipher is being used and who is it named after? What were they famous for?
6. What else can you find out about ciphers? Choose one cipher and encipher a short message. Give it to a family member or friend and see if they can decipher it. You may need to give them some clues on which cipher you have used!