

Hillingdon U3A Computer Club

December 2024

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GCHQ Christmas Challenge 2024

Can you solve
them and be a
spy??

We'll see later



The GCHQ Christmas Challenge

Each of the seven puzzles below will lead you to the name of a UK landmark. Use the names of these landmarks, and the front cover of the card, to discover what people across all of our GCHQ locations will be this Christmas.

1 What does this say?



2 What are you left with once you've removed the award, carrier, character, programme, route, and safety guide?

Black	Brick	Badge
Pink	Cross	Bag
Blue	Panther	Code
Brown	Paper	Hood
Green	Peter	Road
Yellow	Pool	Show
Red	Riding	Tower

3 Complete the sequences:

TROIS, DEUX, __

II, III, __, V

OD, __, IM

QG, RH, __

QW, ER, __

JOAN, __, ARC

DLA, NOD, __, DLO

GRE, AT, __, TA, IN

KNO, WLE, __

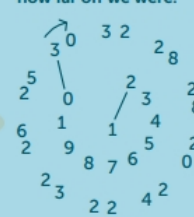
4 Solve the clues. Only write in each square the single letter, if any, which appears in both the across answer and the down answer.

	Indian butter (4)	___ Voldemort, or ___ Asriel (4)	Football anti-racism campaign (4, 2, 3)	Woodwind reed instrument (7)
Material that jeans are made from (5)				
Slang word for food (from a pub?) (4)				
Latin dance (3-3-3)				
Life __, free __, or hair __ (5)				

5 Replace the words in brackets:

An American (soldier) named Joe said that avoiding a huge colony of (insects) was the (basis) of him losing his (path).

6 We wrote the numbers 1-20 in order below, but made some mistakes. Calculate how far off we were.



7 PERHAPS READING the start of this substitution cipher will help you solve it.

ISKGWIM KSWBDU BN DFN LBIGSKSE BM IKBCWKQBQX W QSWBDU BDEBLWNBF D NF XFO

MFQPB D U NGBM WECBNNSEQX ESPBFOM BDBNBWQQX ODKSWEWAQS CSMMWUS.

Follow us or scan the QR code to find the answers soon.

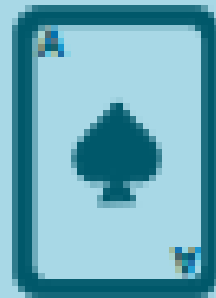
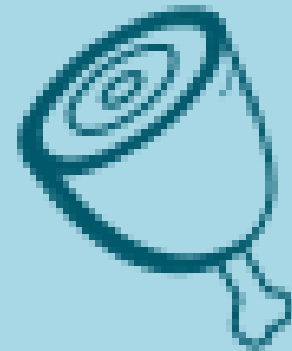
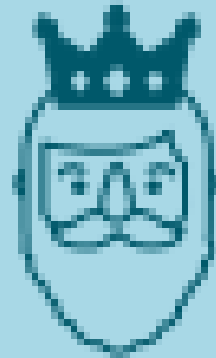
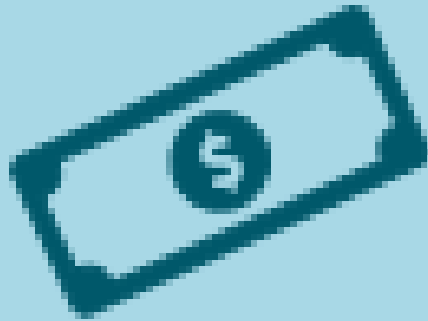
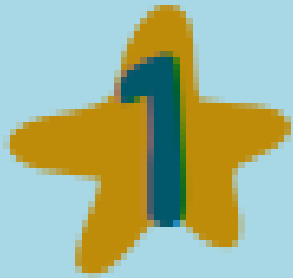
www.gchq.gov.uk/xmas2024



@GCHQ

Hillingdon U3A Computer Club

What does this say?



We'll see later





4, 9, 2, 6

Answers



Answer: BUCKINGHAM PALACE

The images in order represent the words Buck, King, Ham, Pal and Ace.



Answer: BLACKPOOL TOWER

Each of the six words hints at a three-word phrase to remove from the table. Those are Blue Peter Badge (award), Brown Paper Bag (carrier), Red Riding Hood (character), Pink Panther Show (programme), Yellow Brick Road (route) and Green Cross Code (safety guide). Once removed, the words remaining are BLACK, POOL, TOWER or - Blackpool Tower.



Answer: UNIVERSITY OF CAMBRIDGE

The completed sequences are:

TROIS, DEUX, UN

II, II, IV, V

OD, ER, IM

QG, RH, SI

QW, ER, TY

JOAN, OF, ARC

DLA, NOD, CAM, DLO

GRE, AT, BRI, TA, IN

KNO, WLE, DGE

Numbers in French

Roman numerals

Do Re Mi, reversed

Letters shift one step forward in alphabet

Top line of most computer keyboards

Famous historical figure

Old MacDonald, reversed

Great Britain

Knowledge



Answer: EDINBURGH CASTLE

The across clues in order are DENIM, GRUB, CHA-CHA-CHA, STYLE. The down clues in order are GHEE, LORD, KICK IT OUT, BASSOON. Taking the single letter which appears in both across and down clue for each square gives the completed crossword:

E	D	I	N
G	R	U	B
H	C	A	
E	L	T	S

Reading each row in a snaking fashion (alternating left-to-right, right-to-left) yields the answer. The space between Edinburgh and Castle is given by CHA-CHA-CHA and LORD sharing no letters in common.



Answer: GIANTS CAUSEWAY

Replace the words in brackets with synonyms. Soldier > GI, insects > ANTS, basis > CAUSE, and path > WAY.



Answer: STONEHENGE

Write the numbers 11-20 next to the outside ring and take the numerical difference. Interpret these differences using A=1, B=2, etc. to get the answer. You might also notice this puzzle looks a bit like its landmark!

Outside ring:	30	32	28	28	20	24	22	32	26	25
Numbers 11-20:	11	12	13	14	15	16	17	18	19	20
Difference:	19	20	15	14	5	8	5	14	7	5
Letters:	S	T	O	N	E	H	E	N	G	E



Answer: PRINCIPALITY STADIUM

Solve the substitution cipher to get the decoded message:

PERHAPS READING IT NOT CIPHERED IS PRIMARILY A LEADING INDICATION TO YOU SOLVING THIS ADMITTEDLY DEVIOUS INITIALLY UNREADABLE MESSAGE

The words primarily, leading and initially are clues to look at the first letters. These give the answer.



Final answer: UNITED IN PROTECTING THE KINGDOM

The answer to each puzzle is a UK landmark whose location is shown on the front of the card by a festively attired animal. Each animal has four numbers associated with it, as shown at the bottom of the picture. Take each landmark in the order that Santa passes through them on his journey around the UK, and then use the letters indicated from each answer. For example, the robin represents PRINCIPALITY STADIUM, and the 18th, 4th, 6th and 11th letters of that name are U, N, I, T. The final answer is what our staff will be this Christmas. They will be UNITED IN PROTECTING THE KINGDOM.



Hidden Extras

Did you spot our three hidden festive messages on the front cover?

The Morse code in Santa's route reads: WE WISH YOU A MERRY CHRISTMAS (twice)

The binary code in the sea reads: SEASON'S GREETINGS

The first letters of each animal name in the order visited by Santa reads: RUDOLPH

