

# Science Olympiad — Just Xenocrypts

Names of participants: (Please print neatly)

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School Name: \_\_\_\_\_

Check your team:  Varsity  JV1  JV2  JV3

**Warning:** Do not open this packet until given permission to do so.

**Note:** There are useful notes after this page.

**Scoring:**

Time to solve first problem: \_\_\_\_\_ (use to calculate Bonus below)

Question	Value	Incorrect letters	Deduction	Score
Timed	0			
1	0			
2	0			
3	0			
4	0			
5	0			
6	0			
7	0			
8	0			
9	0			
10	0			
11	0			
12	0			
13	0			
14	0			
15	0			
16	0			
17	0			
18	0			
19	0			
20	0			
21	0			
22	0			
23	0			
24	0			

<b>Bonus</b>			
<b>Final Score</b>			

<b>Question</b>	<b>Value</b>	<b>Incorrect letters</b>	<b>Deduction</b>	<b>Score</b>
25	0			
<b>Bonus</b>				
<b>Final Score</b>				



The following tables might be useful during the event.

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

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

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

1	3	5	7	9	11	15	17	19	21	23	25
1	9	21	15	3	19	7	23	11	5	17	25

<b>AAAAA</b>	A	<b>AABBA</b>	G	<b>ABBAA</b>	N	<b>BAABA</b>	T
<b>AAAAB</b>	B	<b>AABBB</b>	H	<b>ABBAB</b>	O	<b>BAABB</b>	U/V
<b>AAABA</b>	C	<b>ABAAA</b>	I/J	<b>ABBBA</b>	P	<b>BABAA</b>	W
<b>AAABB</b>	D	<b>ABAAB</b>	K	<b>ABBBB</b>	Q	<b>BABAB</b>	X
<b>AABAA</b>	E	<b>ABABA</b>	L	<b>BAAAA</b>	R	<b>BABBA</b>	Y
<b>AABAB</b>	F	<b>ABABB</b>	M	<b>BAAAB</b>	S	<b>BABBB</b>	Z

## Frequency Table of English letters:

E - 12.51%	S - 6.54%	C - 3.06%	G - 1.96%	K - 0.67%
T - 9.25%	R - 6.12%	U - 2.71%	W - 1.92%	X - 0.19%
A - 8.04%	H - 5.49%	M - 2.53%	Y - 1.73%	J - 0.16%
O - 7.60%	L - 4.14%	F - 2.30%	B - 1.54%	Q - 0.11%
I - 7.26%	D - 3.99%	P - 2.00%	V - 0.99%	Z - 0.09%
N - 7.09%				

## Frequency Table of Spanish letters:

E - 14.08%	I - 5.98%	M - 3.08%	Y - 1.09%	Z - 0.47%
A - 12.16%	L - 5.24%	P - 2.89%	V - 1.05%	Ñ - 0.17%
O - 9.20%	D - 4.67%	B - 1.49%	G - 1.00%	X - 0.14%
S - 7.20%	T - 4.60%	H - 1.18%	F - 0.69%	K - 0.11%
N - 6.83%	U - 4.69%	Q - 1.11%	J - 0.52%	W - 0.04%
R - 6.41%	C - 3.87%			

For the purposes of cryptograms it is customary to treat n and ñ as distinct letters, but a and á are the same letter. Likewise for e and é, and i and í. In other words, all the accent marks get amputated when working with cryptograms. Also, while some older Spanish dictionaries consider ch, ll, and rr, to be their own letters—this has fallen out of modern usage. Accordingly, “burro” is considered as five letters: “b-u-r-r-o” and not as four letters “b-u-rr-o.”

## Just Xenocrypts

School: \_\_\_\_\_

Timed Question **[0 points]** What Spanish word means hello in English? When you have solved it, raise your hand so that the time can be recorded and the solution checked.

**UFRL**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
<b>Frequency</b>						1						1							1			1					
<b>Replacement</b>																											

Just Xenocrypts

1) [0 points] Solve this part of a famous poem by Neruda.

FGUIP UHSQÑDÑQ XPH CUQHPH WMH NQÑHNUH UHNM RPSAU.

UHSQÑDÑQ, FPQ UEUWFXP: "XM RPSAU UHNM UHNQUXXMIM, J

NÑQÑNMR, MBGXUH, XPH MHNQPH, M XP XUEPH."

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	2	1	1	2	2	3	2	16	2	1			10	8	7		11	10	3	4		15		2	9		
Replacement																											

2) [0 points] Solve this quote by Picasso

KC UIBJUUCMUQI XVUBEX, JXYQ EUXIX AGX XIMQIEYCYEX

EYCRDCIPQ.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	1	2	6	1	5		1		6	2	1		2				1	4	1			5	1		8	5	
Replacement																											

3) [0 points] Solve this quote by Spanish author Gabriel Garcia Marquez

YT DOGTBH CH FHB DOGTC TBTA, AGCH FHB DOGTC AHI

QOÑCRH TAYHI QHCYGXH.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	4	4	6	3		2	5	10	2						1	4		2	1		7				1	3	
Replacement																											

4) [0 points] Solve this part of another famous spanish poem

ÑMILTZE MQJ DEXJ KIJQÑJ OQ SMQTE ÑEFE OQ OQODE, NJDJ

OI JFTVE XTQÑODE, PMO FO HJ XM FJQE GDJQÑJ.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency				5	9	4	1	1	3	11	1	1	5	1	5	8	1	9		1	4		1		3		1
Replacement																											



## Just Xenocrypts

Page 3

5) [0 points] Solve this quote that I just made up

XVZ, ZV ICEKAWLAC CG KCGLE IC QCEF. NFQVE F SWDFA

ELCKC TFAKLIVE, Z NVZ F DFGFA UFIF TFAKLIV.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	6		8	2	6	11	3		5		5	5		2				2		1	2	1	6	2	1		4
Replacement																											

6) [0 points] Solve this quote by Tokio from Money Heist

IMÑ PVI XUOR GO CHUB, OR YHOBKM Ñ VQPV. Ñ IU RM

KHOGM QQOLVB PO YHOBKM, VQ PORMI NHO OIYVKO PU VQPV.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		4	1				2	5	5		4	1	6	1	3	12	6	5	4			4	8		1	3	
Replacement																											

7) [0 points] Solve this other quote from Money Heist by El Profesor

ZD NEO DOTDSEÑK DO FE UCÑE E ÑCHDPDOMCEP ÑD YIDOKT V

XEFKT. TC DTZK FK NEMDO KZPET WDPTKOET, OK WETEPCE

OEÑE.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency			5	11	15	3		1	1		8		2	2	5	9	5			1	9	1	1	2	1	1	3
Replacement																											

8) [0 points] Solve this last quote by Moscu from Money Heist

ZCUCZ UER DIKEIPCZ, BCUC WYQCMIZ KEI QXIMIM KEI XW

DCW HY NXOY GYBXIMOC YAELIWCZ, DCWKEI MC QIMIUCZ MX

XOIY OI CQWY BCZY DYWY GYBIW.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	1	4	14	4	6		2	1	15		4	1	7	1		4	1	4	1			4		8	6	11	7
Replacement																											

## Just Xenocrypts

Page 5

9) [0 points] Here's a random quote from an article about cooking a certain dish for Christmas

YXGOQU THOBGLUB HO HK TKGFAKKU TCAOYATGK QH XOG YHOG

OGÑAQHDG, HK TGÑU ÑAHOH QH SUGLG AOHÑAFGEKH G

OXHBFCG LHOFH.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	7	3	3	1	1	4	13	15			7	3			4	11		4		1	5	5			3	3	
Replacement																											

10) [0 points] Here's a quote from Noticias Telemundo from 12/24/2020

BY MABNC RP DAWJWEWRCAPV RP ZW VWZBR, APVKWDFVDWV, H

JCTJPACV VCANAPYRFPACY WZ NAFYKFNWZ PLNPADC PY

PYXPATPRWRPV FYXPKKFCVWV RPZ NWFV PY VB KBTNZPWOCV.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	11	5	9	4	1	7		1		3	5	1	1	7		1	18		8		3		13	13	2	8	6
Replacement																											

11) [0 points] Solve this translated quote by Albert Einstein

HW ÑWCFIWD NFDWKTFN HVFDUNWD ÑNWLKFIYD RWH FK IBDIW

ÑFHDIYIBFHUW GVF VDYIWD RVYHCW KWD RNFYIWD

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		2	2	11		10	1	6	7		4	1		5	3			3		1	2	4	13		5		
Replacement																											

12) [0 points] Solve this other translated quote by albert einstein

XJM CSHVEJM BXS JXJQM QEGSZUE XJ SHHEH JXJQM UJZSJZE

JMTM JXSOE .

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		1	1		6		1	4		11			6			1		3		6	1	2	1		6		3
Replacement																											

## Just Xenocrypts

Page 7

13) [0 points] Solve this quote by Salvador Dali

VXCKU QTRGVIFK RKXTX HPV ÑV GIXAGOTI RKI PIT

AOKYPIFT VÑKRGKI U VXCKU COTCTIFK FV AGICTO RKI

QKIVXCGFTF.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	3		6			6	6	1	11		11				2	4	3	2	5		9	3	8		6	1	
Replacement																											

14) [0 points] Solve this weird quote by Salvador Dali

XI MXBFMXÑI NID ZKM TKUXÑI NFÑI QUXEIVBU U QU

NUDDFQQU MX KX DMVBUKDUXBM XKXTU JM VFDAMX KX

BMQMPIXI TITFXUÑI.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	1	5		6	1	5			10	1	6		10	3	4		1	5			4	11	3		14		1
Replacement																											

15) [0 points] Last quote by salvador Dali, I swear. (this one is short, so try your best.)

GDKNP MRLR LCPDP NG SÑD LDÑNPD ZN CÑXNÑBDP.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		1	2	6			2				1	3	1	5	4		5		2	1					1		1
Replacement																											

16) [0 points] Solve this quote by the author of Don Quixote

QHW NHÑU ÑH ZULH UL UÑ XPWJXP TVU ÑH QHLGAH UL UÑ

GPXHBPL.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	1	1					2	8		1		5		1	5		4	2			1	7	1	2	3		1
Replacement																											

Just Xenocrypts

17) [0 points] Solve this other quote by Cervantes

ZLPMÑ IKMU L WKYYLUJF MF MPZLN LOCL MU MY ELÑ.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency			1		1	2			1	1	2	7	6		3	1	2					3		1		3	2
Replacement																											

18) [0 points] Solve this quote.

JV XJQNFNQIK QJ CWJGK OJV BNJEIH; JV HXINFNQIK

JQXJZK CWJ MKFRNJ; JV ZJKVNQIK KGWQIK VKQ BJVKQ.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		2	2		1	3	2	2	6	14	11		1	7		1		9	1				7	3	3		2
Replacement																											

19) [0 points] Solve this translated quote by anais nin.

JOYNGDGAHO ÑNMN OMDHNJMN ZM BGIM IHO BJYJO, JW JZ

AHAJWEH S JW NJENHOÑJYEGBM.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	3	3		2	3		4	6	2	10			7	6	2	6				1				3		3	2
Replacement																											

20) [0 points] Solve this translated quote by Confucius.

KF MAFJNPHE MQA ZNF OQKMAQ UAAQR D VIQAFE? OQKMAQ

UAAQR MUAU LÑLÑA D VIQAFE MUAU HFPFA UIJQ MQA IQ ZNF

LÑLÑA.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	16			2	3	8		2	4	2	3	4	7	3	4	2	2	12	2			8	2				2
Replacement																											



## Just Xenocrypts

Page 11

21) [0 points] Solve this quote from the Lion King

VF ZWJIW IW FHFUF GSU VS NCW WUWB, R SIUSB IW

SEKFUFJ GSU VF HKBHF UFPSJ. FXSBICHTUFIW F WBS.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		5	2		1	12	2	4	6	3	2			1			1		1	9	1	8	3	9	1		1
Replacement																											

22) [0 points] Solve this quote by Walt Disney in Spanish

MÑ KTVSLUR BUSU KVRJUMRUS, KTVSLV BUSU RÑXUS. BÑSETV

PÑR RTVXÑR VRCUM BUSU JTLBPDSRV.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		5	1	1	1					2	3	3	3		5		2		9	9	5	11	8		2		
Replacement																											

23) [0 points] Solve this quote about ignorance

WDÑDC CDIDC IRQ LOYDFNYWVC. TD MRV DBRFFV VC MRV YD

WDÑDC LOYDFNIDC TNC ILCINC BDCNC.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency		2	12	13		4			5			3	2	5	2	2		1	4		2		5	3		4	
Replacement																											

24) [0 points] Solve this quote about happiness

DN LBJYPBN AHDJENRJAS OP UAOA VPB MFYN SA PV VPB

IPDJG, DN VPEFSON MNRPB IPDJG N DAV OPYNV.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	6	5		6	2	2	2	1	2	5		1	2	9		4	10		2	3		1	6			3	
Replacement																											

## Just Xenocrypts

Page 13

25) [0 points] Solve this translated quote by Confucius

L RZÑRM CEQMSL CEM GLDLT, GM JZÑ IZRZ IE JZSLNZÑ

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
<b>Frequency</b>			2	1	3		2		2	2		5	4	1	3			1	3	2	1						6
<b>Replacement</b>																											

