



KNOX
GRAMMAR
SCHOOL

STATE

DA VINCI DECATHLON 2018

CELEBRATING THE ACADEMIC GIFTS OF STUDENTS
IN YEARS 7 & 8



CODE BREAKING ANSWERS

TEAM NUMBER _____

1	2	Total	Rank
/40	/10	/60	

PART 1

TRACK THE MESSAGES

5 MARKS EACH

Mitch found a series of scraps of text amongst his grandmother's things. She had promised that she would share some of her quirky wisdom with him. I guess this was it. Can you decode her messages?

You will score **5 points for each message**, including who said it. There are partial points for getting most of the message decoded. Make sure it is translated accurately.

There are some extra resources and the occasional clue. Feel free to work things out on the paper as you go but make sure that you record all of your messages on the answer page at the end of the questions. Only the ANSWER PAGE will be marked.

CLUE 1

Hiwch atdhe si rbeprefela ot yevre ehotr? 'eht txneudpcee'. sjuiul esrcaa

CLUE 2

TPTNEDWHUYENLORD
OXETHUEPCESOSTOOGLEMDRITLETSAWLE
ECEXTHARHONECCI

CLUE 3

653 243 47 843 6678 8639732833 63 255 844647 8428
427736 86 2 626. 5366 8768759

CLUE 4

Pm opzavyf ylwlhaz pazlsm, huk aol bulewljalk hsdhfz ohwwluz, ovd
pujhwhisl tbza Thu il vm slhyupun myvt lewlyplujl. Nlvynl llyuhyk Zohd

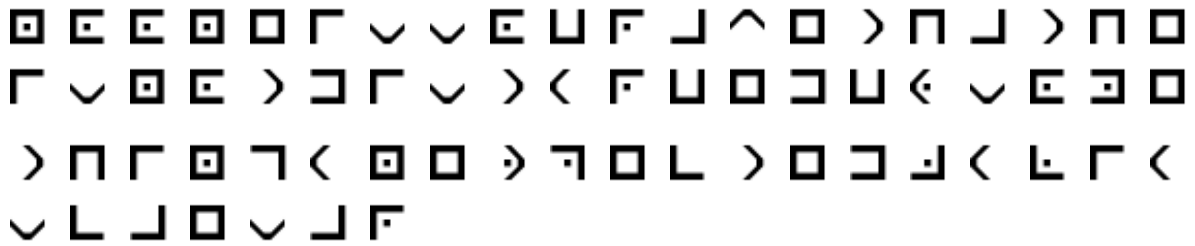
CLUE 5

I tried out various experiments described in treatises on physics and chemistry, and the
results were sometimes unexpected. At times, I would be encouraged by a little unhopd-for
success;

(complete the quote...)

**85 8 90 68 16 53 74 8 92 LD 4 49 90 E DEE15 99 T D99 91 77
4 20 92 34 8 9 89 6 53 DE7 117 A60 9 A53 71 75 16 75 16 92
L22 7 G 87 8 M M39 49 EX15 68 53 E7 58 M18 53 E 29 R53 E**

CLUE 6



CLUE 7

A	S	C	A	S	A	B	L
I	I	M	P	L	E	,	A
L	S	L	U	T	I	Y	N
U	N	O	H	E	O	E	C
J	E	S	T	B	N	T	A
.	T	T	S	E	S	U	S
D	F	O	E	R	A	N	X
E	T	C	E	P	X	E	X

CLUE 8

^ Sct s nvr tkn by srprs; h knws xctly wht t d whn nythng npxctd hppns.
Rbrt Bdn-Pwll

PART 2

WHAT DID YOU SAY?

10 MARKS

The following unexpected and rather alarming dialogue was overheard between Bruce and Bernice. It seems that Bruce had taken to replacing the words down, into, up, run, mouse, and street with the words gwee, ippip, trowby, foba, poble, and gorch. Bernice couldn't tell which was which, so she had this conversation:

Bernice: So, it started off with the cat pombing the trowby gwee.

Bruce: That's nonsense; that's not even a good sentence.

Bernice: Could I say "The cat pombled the foba gwee?"

Bruce: That's just as bad.

Bernice: It was gwee the foba that the cat pombled, right?

Bruce: Correct.

Bernice: Then the cat pombled gorch the foba and ippip the foba.

Bruce: Yes.

Bernice: And the cat pombled gorch the foba and ippip the trowby?

Bruce: You're talking nonsense again.

Bernice: But it was ippip the trowby that the cat pombled?

Bruce: You don't know how to use words, do you?

Bernice: The cat pombled the trowby ippip.

Bruce: That sounds a lot better.

What do the following words mean?

WORD	TRANSLATION	MARK
ippip	d o w n	
foba	s t r e e t	
poble	r u n	
gwee	i n t o	
trowby	m o u s e	
gorch	u p	

[2 points off for each incorrect answer up to 10 – this allows for getting one random correct answer]

ANSWER SHEET

TEAM NUMBER _____

CLUE	MESSAGE	MARK
1	Which death is preferable to every other? 'The unexpected'. Julius Caesar Anagrams for each word.	
2	To expect the unexpected shows a thoroughly modern intellect. Oscar Wilde Rail fence – 3 rails	
3	Old age is the most unexpected of all things that happen to a man. Leon Trotsky Phone code	
4	If history repeats itself, and the unexpected always happens, how incapable must Man be of learning from experience. George Bernard Shaw Caesar cipher +7	
5	(I tried out various experiments described in treatises on physics and chemistry, and the results were sometimes unexpected. At times, I would be encouraged by a little unhoped-for success;) at others, I would be in the deepest despair because of accidents and failures resulting from my inexperience. Marie Curie periodic table	
6	No one is so brave that he is not disturbed by something unexpected. Julius Caesar Pig pen cipher	
7	The best solutions are often simple, yet unexpected. Julian Casablancas Spiral from the centre clockwise.	
8	A Scout is never taken by surprise; he knows exactly what to do when anything unexpected happens. Robert Baden-Powell Missing vowels	

5 marks for each **completely** correct solution (take a half mark off for one minor mistake)

Marks in proportion to the amount of the message translated.

If there is some progress, give a mark.

Periodic Table of the Elements

1 1IA 11A	2 IIA 2A											13 IIIA 3A	14 IVA 4A	15 VA 5A	16 VIA 6A	17 VIIA 7A	18 VIIIA 8A
1 H Hydrogen 1.0079																	2 He Helium 4.0026
3 Li Lithium 6.941	4 Be Beryllium 9.01218											5 B Boron 10.811	6 C Carbon 12.011	7 N Nitrogen 14.0074	8 O Oxygen 15.9994	9 F Fluorine 18.998403	10 Ne Neon 20.1797
11 Na Sodium 22.989769	12 Mg Magnesium 24.305	3 IIIB 3B	4 IVB 4B	5 VB 5B	6 VIB 6B	7 VIIB 7B	8 VIII 8	9 VIII 8	10 VIII 8	11 IB 1B	12 IIB 2B	13 Al Aluminum 26.981538	14 Si Silicon 28.0855	15 P Phosphorus 30.973762	16 S Sulfur 32.065	17 Cl Chlorine 35.4527	18 Ar Argon 39.948
19 K Potassium 39.0983	20 Ca Calcium 40.078	21 Sc Scandium 44.95591	22 Ti Titanium 47.88	23 V Vanadium 50.9415	24 Cr Chromium 51.9961	25 Mn Manganese 54.938	26 Fe Iron 55.847	27 Co Cobalt 58.9332	28 Ni Nickel 58.6934	29 Cu Copper 63.546	30 Zn Zinc 65.39	31 Ga Gallium 69.723	32 Ge Germanium 72.64	33 As Arsenic 74.92159	34 Se Selenium 78.96	35 Br Bromine 79.904	36 Kr Krypton 83.80
37 Rb Rubidium 85.4678	38 Sr Strontium 87.62	39 Y Yttrium 88.90585	40 Zr Zirconium 91.224	41 Nb Niobium 92.90638	42 Mo Molybdenum 95.94	43 Tc Technetium 98.9072	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.9055	46 Pd Palladium 106.42	47 Ag Silver 107.8682	48 Cd Cadmium 112.411	49 In Indium 114.818	50 Sn Tin 118.71	51 Sb Antimony 121.760	52 Te Tellurium 127.6	53 I Iodine 126.90447	54 Xe Xenon 131.29
55 Cs Cesium 132.90545	56 Ba Barium 137.327	57-71 Lanthanide Series	72 Hf Hafnium 178.49	73 Ta Tantalum 180.9479	74 W Tungsten 183.85	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Gold 196.96655	80 Hg Mercury 200.59	81 Tl Thallium 204.3833	82 Pb Lead 207.2	83 Bi Bismuth 208.98037	84 Po Polonium (209)	85 At Astatine 209	86 Rn Radon 222
87 Fr Francium 223	88 Ra Radium 226	89-103 Actinide Series	104 Rf Rutherfordium (261)	105 Db Dubnium (262)	106 Sg Seaborgium (266)	107 Bh Bohrium (264)	108 Hs Hassium (265)	109 Mt Meitnerium (268)	110 Ds Darmstadtium (285)	111 Rg Roentgenium (272)	112 Cn Copernicium (285)	113 Uut Ununtrium unknown	114 F1 Flerovium (289)	115 Uup Ununpentium unknown	116 Lv Livermorium (293)	117 Uus Ununseptium unknown	118 Uuo Ununoctium unknown
		57 La Lanthanum 138.9055	58 Ce Cerium 140.115	59 Pr Praseodymium 140.90768	60 Nd Neodymium 144.24	61 Pm Promethium 144.9127	62 Sm Samarium 150.36	63 Eu Europium 151.9654	64 Gd Gadolinium 157.25	65 Tb Terbium 158.92534	66 Dy Dysprosium 162.50	67 Ho Holmium 164.93032	68 Er Erbium 167.26	69 Tm Thulium 168.93402	70 Yb Ytterbium 173.04	71 Lu Lutetium 174.967	
		89 Ac Actinium 227	90 Th Thorium 232	91 Pa Protactinium 231	92 U Uranium 238	93 Np Neptunium 237	94 Pu Plutonium 244	95 Am Americium 243	96 Cm Curium 247	97 Bk Berkelium 247	98 Cf Californium 251	99 Es Einsteinium 252	100 Fm Fermium 257	101 Md Mendelevium 288	102 No Nobelium 289	103 Lr Lawrencium 262	

Alkali Metals

Alkaline Earths

Transition Metals

Basic Metals

Semi-Metals

Nonmetals

Halogens

Noble Gases

Lanthanides

Actinides