

Kryptos 2017: Challenge 3 Solution

In Challenge 3 the hint is given that the plaintext was encrypted using the Vigenère cipher and that the key for the cipher was somehow hidden in the webpage.

If you scroll over the webpage you will notice that if you mouse over the yellow “Kryptos” block in the third row of the sixth column that the word “source” appears. This is a hint to view the source code of the webpage.

The secret is hidden as the last two hexadecimal digits of the background colors of the boxes in the grid. For example the first box in the upper left hand corner of the page is green and its color identification number is #22B154.

If you look at the next green box you see the color code is #22B148. The last two digits are different and represent the ASCII hex code for a letter. If we group the codes by color we get the following:

Green		Red		Black	
Color Code	ASCII letter corresponding to last two digits (hex)	Color Code	ASCII letter corresponding to last two digits (hex)	Color Code	ASCII letter corresponding to last two digits (hex)
#22B154	T	#ED1C57	W	#3F4850	P
#22B148	H	#ED1C4F	O	#3F4849	I
#22B145	E	#ED1C52	R	#3F484E	N
#22B120	space	#ED1C44	D	#3F4845	E
#22B143	C	#ED1C20	space	#3F4841	A
#22B14F	O	#ED1C49	I	#3F4850	P
#22B144	D	#ED1C53	S	#3F4850	P
#22B145	E			#3F484C	L
				#3F4845	E

Note the yellow code is #FFF200 and 00 corresponds to the null character so the yellow is not used.

The message is “The code word is pineapple.”

Using the codeword “pineapple” in the Vigenère cipher:

CT: pzzwdgdaeiavpoudfvdvgaecitiip

codeword: pineapple

We find the plaintext to be (after spaces added):

arms drop at silo four on the twentieth