

Harrington Hints:

1. Understanding How To Encrypt a Message:

Create a very short message by selecting "WriteYourOwn": and enter "dog." Click on the "Random Substitution" tab. Then select - "Sort Substitution / Random / Assign." You will notice that the word "dog" was encrypted in the screen to the left.

Notice on the "Letter Frequency Screen" there should only be 3 large golden bars, one for "D", one for "G" and one for "O". The corresponding letter in blue beneath "D" "O" "G" are the randomly encrypted letters.

Note: The frequency (or height) of the encrypted (blue) letter does NOT represent the frequency in this secret message (or else they would be the same height as the gold bars), but represents the frequency upon which that letter appears on average in the English language.

Now you select a word and encrypt it. (3pts.)
What was the word you created?
What was its encrypted form?

2a. Hints that will help you Decrypt a Message:

Write and encrypt the following message: "I like pizza." Then sort the original. "By%". Now analyze the gold bar letter frequency and notice that the letters that repeat obviously appear more frequently ("i" & "z"). Think about sentence structure and begin dragging the encrypted "Blue" letter under the gold "i" and other "Blue" letters under the gold "z". Switch some more. Can you now guess the letter/word/sentence. Be patient...it is a puzzle.

Now you select a short sentence and encrypt it. (5pts.)
What was the sentence you created?
What was its encrypted form?
Pretend you do not know the sentence. Are you able to decrypt it?

2b. Tricks that will help you Decrypt a Message:

Open "Encrypted Sample #3". Always start by cracking small words that are fairly common in most sentences, "I", "We", "Is", "The", etc. Think about how sentences are usually structured. Do you see any patterns. Remember, this is a puzzle...Be Patient! Work Out Loud As A Class!

[Answer to "Encrypted Sample #3"](#) -Do Not look at the answer until a few minutes before the end of class!

Were you able to Crack any of the "Encrypted Samples"? (10pts.)
Whether you did or did not succeed, what protocol or process did you decide to follow?
Explain.

Journal: Define..., (5pts.)

Explain in no more than 1 sentence how a Caesar Cipher Works:

Explain in no more than 1 sentence how a Random Substitution Cipher Works: