A Caeser cipher is a code created by shifting the positions of letters in the alphabet. You can create your own Caesar cipher using the template below.


First, choose a letter between B and Z. Then, write the letter A underneath that letter in the template above. Then, write the other letters of the alphabet in order in each space to the right of your new letter A (looping back around to the beginning of the template after $Z$ ). For example, if you write the letter A under Y, you will write B under Z, C under A, D under B, and so on. Your new cipher can be used to encode messages by changing the letter's of a message to the letters you've written in the template above. How would you write the following messages in your new code?

## THIS IS A CODED MESSAGE.

## CODES AREFUN!

## THESECRETMEETINGISATNOON.



## SEND A CODED MESSAGE!

Step I: Using the cipher you created in the previous activity, write a secret message to a partner in the space below.

Step 2: Switch papers with a partner and see if they can decode your message!
To help, tell them what the letter A is in your code so they can fill out the cipher below.


Step 3: Have your partner write the decoded message below.
$\qquad$
$\qquad$
$\qquad$


## CREATE YOUR OWN CODE!

## Now that you know about Caesar ciphers, you can be a code breaker like Elizebeth Friedman!

JBJ!LBH QRPBQRQ ZL FRPERGZRFFNTR!

One way to crack a Caesar cipher is to find the most frequently used letter in a coded message and try to guess what letter it corresponds to in the cipher. In the secret message above, what is the letter that appears the most?
$E$ is one of the most frequently used letters in English. Whichever letter appears the most in the coded message above will likely translate to an E. Try writing that letter underneath the letter E in the alphabet below, and continue filling in the letters of the alphabet in order to complete the cipher.


Using your new cipher, try to decode the secret message using the space below.

## JBJ! LBH QRPBQRQZLFRPERGZRFFNTR!



