



Caesar Cipher

Directions: **Decrypt** the **encrypted** message using the cipher wheel at <https://inventwithpython.com/cipherwheel/>.

Use a shift of 20 on the wheel (A in the inner ring = T in the outer ring).

Remember the outside ring is plain text and the inside text is the **encrypted** text.

Message: **Aopz pz lhzf**

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Book Code Cipher

In a previous lesson, you created encoded details about a party. Now you need to know the dress code that is mandatory for entering the party. You will need to use the **Book Cipher** to decode the dress code.

Use the chart below

The dress code for the party is mandatory. 1	So, he would not be the only one not knowing, Bob decided to ask Eve if she knew what the secret party attire was. 2	Eve said that she remembered, but he had to decode this formal message to find out. 3
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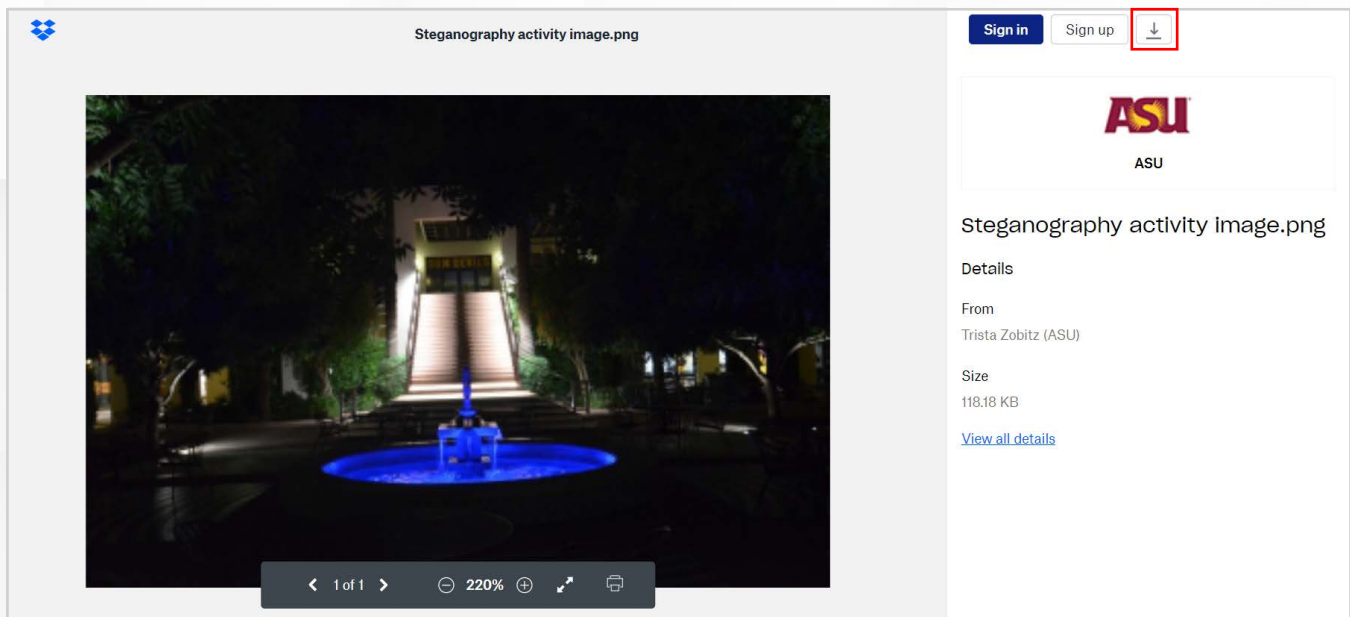
Encrypted message: (1,1,1) (1,1,6) (2,4,4) (1,1,7) (3,3,3)

Decrypted message:

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Steganography

Step 1: Download a coded image by selecting the link and then selecting the down arrow button. Be sure to remember where you save the image on your computer.



[https://www.dropbox.com/s/fjsvn1gvlpmqpml/Steganography activity image.png?dl=0v](https://www.dropbox.com/s/fjsvn1gvlpmqpml/Steganography%20activity%20image.png?dl=0v)

Step 2: Select the link to access a program which can decode images:
<https://manytools.org/hacker-tools/steganography-encode-text-into-image/go>

Step 3: In the following section, “Host-image (max 256 KB/encoding or 384KB/decoding)”

- Click “Choose File” (see below circled in red)

Hide message (max ~250.000 characters + 256 KB Host-image (PNG))

OR:

Hide image (max 64 KB, 'Hide message' above ignored)

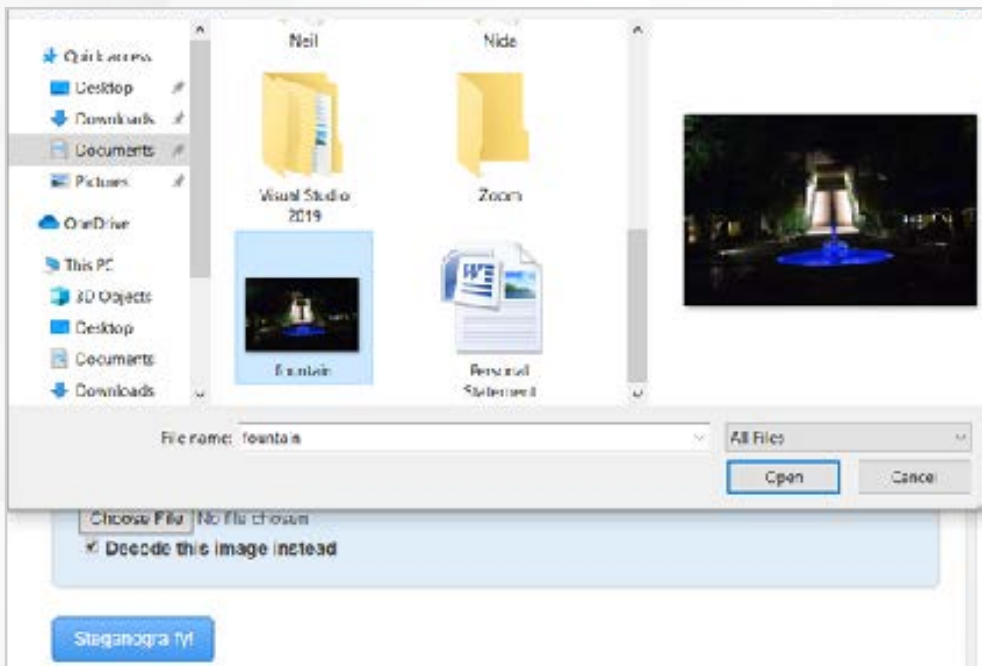
Choose File No file chosen

Host-image (max 256 KB/encoding or 384KB/decoding)

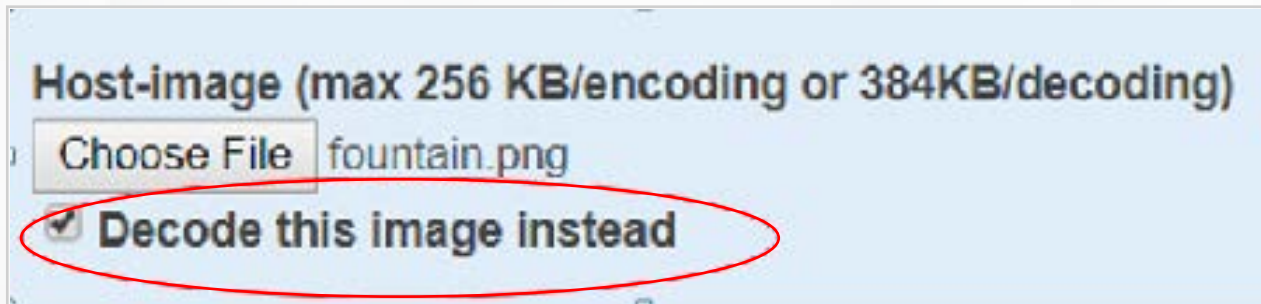
Choose File No file chosen

☐ Decode this image instead

- Select the saved image of the fountain



- Click on “Decode this image instead” to check the box.



Host-image (max 256 KB/encoding or 384KB/decoding)

Choose File fountain.png

☒ Decode this image instead

- Click [Steganogra-fy!](#) to decode the secret message.

Step 4: If everything worked, you will find a hidden message.

What time does the message say to be at the party?

Using Ciphers

Evaluate the best cipher to use in the following situations. Give a brief explanation as to why you chose the specific cipher.

Choose from **Caesar Cipher**, **Book Cipher**, and **Steganography**.

1. Sending a secret message to a friend over email.
2. You're in class and have to stay quiet. You are reading a book for class.

3. As a leader of an army, you want to send a message to your soldiers that cannot be easily decoded by the enemy.

4. You are a hacker and want to send a message to another friend.