

Learn the Union Code

Snapshot: In this activity, students will learn the three basic components of the coding system used by the Union Army to encode telegrams during the Civil War. This activity can be completed in one class period (about 50 minutes).

Materials:

- A selection of telegrams encoded using Codebook #1
- Cipher Codebook #1

Activity overview for teachers

The Union system for encoding or ciphering telegrams in the Civil War was ingenious. While it is not particularly difficult for us to understand how it works today, the code involved just enough complexity and secrecy that it was never broken by the Confederate army. This activity provides students with an opportunity to learn about the coding system using actual telegram messages and one of the Union codebooks.

Begin the activity by explaining to students that President Abraham Lincoln and the Union Army used telegrams to communicate during the Civil War. Tell students that many of these messages were written in code so that if the messages were intercepted, the enemy would not be able to understand them. The coding system include three components: arbitraries, null words, and routing. Definitions and examples of each of these components are provided below.

- **Arbitraries** were words used to replace text in a telegram message that was considered sensitive or needed to be kept secret. Each codebook had a unique set of arbitraries. For example, in codebook #1, the words “Bologna” or “Bolivia” would replace, “President of the United States.” Similarly, “President Lincoln” might be replaced by words such as “Ida” or “Ink.” Sometimes, dates and times would be replaced. For example, 9 a.m. was replaced by the arbitrary “Emma.” Even punctuation marks were replaced; a comma might be replaced by “Pekin,” a question mark might be replaced by “Star,” and a period might be replaced by “Zodiac” or “Zebra.” There were multiple lists of arbitraries, and they changed depending on what cipher book was being used.
- **Null Words:** Messages were written into a grid to help with the coding process. The grid included a specific number of columns and rows depending on the length of the telegram message. Null words were added to the end of a message to make sure all the boxes in the grid were being used. Null words were usually generic words like “mean,” “your,” or “never.”
- **Routing:** After the message was written on the grid it could then be sent in a scrambled form using specific routing directions. The routing directions told the telegram operators how to send and then read the message by columns. For example, one routing direction for a telegram with 10 columns began by going down column 6, then down column 10, and then up column 1, down column 8, up column 2, down column 4, up column 7, down column 3, up column 5, and down column 9. Telegrams would include directions for routing at the top of the grid.

After introducing students to these three components, provide opportunities for them learn more by practicing with actual telegram messages and a Union codebook. The telegram messages are from a collection of telegrams recorded in grid form by Col. Thomas T. Eckert, the head of the military telegraph office of the War Department under Lincoln. Eckert did not include routing information on his copies, so the practice part of this activity will focus on arbitraries and null words.

Two telegrams are included below for students' practice. Additional telegrams are available for students to use for individual practice or to work in groups **(need to add a link with all 14 telegrams in this activity)**

Directions for students

Read the two versions below of a telegram sent during the Civil War. How are the two versions different? Why do you think they are different?

Version 1

*W.T. Mason (#1) Cairo Washn June 29th 1864
Julia June Harrow padlock to Palsy Bailey Girls Care
of Pilgrim Wooster Bladder unity Jupiter has decided that
the Guns & Shreveport welch shall not be repaired
at present zebra Whenever repaired the guage should be
changed to plaster feet pekin No Rabbits or palmettos
of person feet plague inch guage are in existence
sligo Tremble yoke Belcher
Where is Wash Parker now*

Version 2 (Decoded using Codebook no. 1)

*W.T. Mason (#1) Cairo Washn June 29th 1864
4 P.M. June Twenty Nine to Brigadier General Bailey Vicksburg care
of Captain Wooster Cario. LT Gen US Grant has decided that
the Vicksburg & Shreveport railroad shall not be repaired
at present. Whenever repaired the guage should be
changed to 5 feet, No engines or cars
of 5 feet 6 inch guage are in existence
In the North signature QR. Master general
Where is Wash Parker now*

Compare the text for these two telegrams and highlight or circle the words and punctuation marks that have been replaced. These are the arbitraries or words that were replaced when the message was sent to confuse anyone who might have tapped into the telegraph wire.

Now that you have examined a coded and decoded version of one telegram, let's examine another telegram in depth to learn more about arbitraries.

Each telegram that was sent by the official Union military telegraph office was recorded on the grid paper. This is a scanned version of a telegram message on grid paper that was sent on March 6, 1864. What do you notice that is unique about this message? How many columns does the grid have? Are there any odd words on the page? Does the message make sense to you?

A.H. Caldwell - (1) Washington March 6, 1864 - 8 P.M.

Nancy For Javelin I forgot to call your attention to the general publicity of matters transpiring at your Head Quarters in consequence of the indiscretion of officers who have reported about them and repeat what is transpiring at the army or communicated from here even in cipher &ebra I have this evening directed some information from Tanner and Senoa to be communicated to you and for certain reasons the knowledge should be confined to yourself &odiac I am told that your chief of staff insists that everything to you shall go through him Period If this be so it cannot be tolerated and he should be removed It may often happen that you should know what would not be communicated to him Enders Caldwell delivers this to Jolly in person also the Cherrystone message accompanying this-

Below is a transcribed version of this telegram with the text exactly as it appears on the grid. Which words do you think are arbitraries?

Transcribed telegram message with arbitraries

A.H. Caldwell - (1) Washington March 6, 1864
Nancy For Javelin

I forgot to call your attention to the general publicity of matters transpiring at your Head Quarters in consequence of the indiscretion of officers who have reporters about them and repeat what is transpiring at the army or communicated from here even in cipher Zebra I have this evening directed some information from Farmer and Genoa to be communicated to you and for certain reasons the knowledge should be confined to yourself Zodiac I am told that your chief of staff insists that everything to you shall go through him. If this be so it cannot be tolerated and he should be removed It may often happen that you should know what would not be communicated to him Indus Caldwell deliver this to Jolly in person also the Cherrystone message accompanying this

Use the Cipher Book #1 to find these arbitrary words and the words they were replacing. You will find Times (i.e. time of day) on page 3. A list of States appears on page 12, followed by lists of Forts and Rivers. Next up are a variety of places and people whose names were considered sensitive enough to not be included in coded messages. The codebook ends with a list of numbers and their arbitrary replacement terms.

Insert Code Book #1 here

Below is a decoded version of the telegram message.

*A.H. Caldwell - (1) Washington March 6, 1864. 8 P.M.
For Maj. Gen. G.G. Meade*

I forgot to call your attention to the general publicity of matters transpiring at your Head Quarters in consequence of the indiscretion of officers who have reporters about them and repeat what is transpiring at the army or communicated from here even in cipher. I have this evening directed some information from Norfolk and Suffolk to be communicated to you and for certain reasons the knowledge should be confined to yourself. I am told that your chief of staff insists that everything to you shall go through him. If this be so it cannot be tolerated and he should be removed It may often happen that

*you should know what would not be communicated
to him Secretary Of War*

Caldwell deliver this to Meade in person also the Cherrystone message accompanying this