BOOMbox at Home
Cipher Resource Guide

Throughout history, many different types of ciphers have been used to encode secret messages. Here is an overview of some ciphers that you can try out for yourself.

Types of Ciphers

Book Cipher

In this cipher, the sender and receiver agree to use a specific book as a key. The sender finds each of the words in the message in the book and writes out the location (page, line, and word) of each word. The receiver can then use the book to look up the words and decode the message. It is essential that both the sender and receiver are using exactly the same edition of the book.

Cardan Grille Cipher

In this cipher, the sender writes out a longer piece of text containing all of the words in the message. Then, they create a template with cut outs corresponding to the locations of the words in the message. When the receiver puts the template over the text, they see the message, but when the template is removed, the text looks like normal, unrelated writing.

Number Coding

In this cipher, numbers are assigned to each letter of the alphabet. The sender spells out the message using the corresponding numbers.

Pigpen Cipher

In this cipher, symbols are assigned to each letter of the alphabet. The sender spells out the message using the corresponding symbols.

Scytale

In this cipher, the sender and the receiver each have cylinders that are the same size. The sender wraps a long strip of paper around the cylinder and writes the message on the wrapped paper. When unwrapped, the strip of paper appears to have a random jumble of letters, but when the receiver wraps the strip around their cylinder, they can read the message. Learn more about how to use this type of cipher in [link activity sheet].

Additional Resources

Want to learn more about ciphers and cryptography?

• Watch this video for a simple overview of cryptography.
• Get information about these and other simple ciphers.
• Check out more of the math involved in cryptography.

What will you learn today?

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