

MORSE CODE

MORSE CODE REFERENCE SHEET

International Morse Code

1. The length of a dot is one unit.
2. A dash is three units.
3. The space between parts of the same letter is one unit.
4. The space between letters is three units.
5. The space between words is seven units.

A	• —	U	• • —
B	— • • •	V	• • • —
C	— • — •	W	— • —
D	— • •	X	— • • —
E	•	Y	— • — —
F	• • • —	Z	— — • •
G	— • — •		
H	• • • •	1	• — — — —
I	• •	2	• • — — —
J	• — — — —	3	• • • — —
K	— • — —	4	• • • • —
L	• — • •	5	• • • • •
M	— — •	6	— • • • •
N	— •	7	— — • • •
O	— — —	8	— — — • •
P	• — — •	9	— — — — •
Q	— — • —	0	— — — — —
R	• — • •		
S	• • •		
T	— •		

By Rhey T. Snodgrass & Victor F. Camp, 1922 - Image:Intcode.png and Image:International Morse Code.PNG, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=3902977>

MORSE CODE

HOW TO USE MORSE CODE

Morse Code is a way to encrypt your message into a series of dots and dashes that can then be sent using sound, light, or electric pulses. Amateur radio operators, aviators, ship communications, and telegraphs all use Morse Code at times.

Its most famous use is the signal SOS, •••---•••, which is an internationally recognized symbol for help.

Encoding your message with Morse Code is easy: just use the chart on the other side to spell out what you want to say. You can use a flashlight to blink out your message, or you can play a message on the piano! Secret Agents can send messages over long distances with this code.

Experienced Morse Code users can decode messages in Morse Code just by listening to or looking at the signals as they come in!

PIGPEN CIPHER

PIGPEN CIPHER REFERENCE SHEET

A	B	C	J	K	L
D	E	F	M	N	O
G	H	I	P	Q	R

S			W		
T		U	X	•••	Y
V			Z		

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PIGPEN CIPHER

HOW TO USE THE PIGPEN CIPHER

The Pigpen Cipher is a fun and easy cipher that you can take with you! It's also called the tic-tac-toe cipher, and it's very ancient.

This cipher isn't hard to crack when you know the code, but it may fool your friends. Use the chart on the other side of this card to encrypt your sentences. Each letter has a particular shape associated with it based on the lines next to the letter: A is ⊔, for example, while E is □ and W is ∇.

You can draw out the cipher in a hurry: draw two tic-tac-toe grids and two X's, then put dots in the second grid and the second X. Then write the letters of the alphabet in across, then down order.

⊔ ⊔ ⊔ ⊔ ⊔ ⊔ ⊔ ⊔ ⊔ ⊔

BOOK CIPHER

BOOK CIPHER REFERENCE SHEET

A Book Cipher is another cipher that requires a little preparation. You and your Secret Agent Partner will need to each have a copy of a particular book — any book will do, as long as you have **identical** copies.

To send your message, you're going to find each word in your book and write down three numbers:

- 1) The page the word is on
- 2) The line the word is on
- 3) The position of the word in the line.

Continue through your book (you can go back and forth) until you have encoded your entire message. It's important for your secret agent partner to have the **identical** book, since different printings of books may change just slightly.

Traditionally, dictionaries or Bibles were used for this cipher, since most houses had one.

SCYTALE CIPHER

SCYTALE CIPHER REFERENCE SHEET

The scytale cipher is an example of a **transposition** cipher, where the letters are actually moved around. This was used in ancient Greece to carry secret messages.

The word **scytale** means “baton” or “cylinder” in Greek, and that is the key to the scytale cipher: both the sender and the receiver of the message have a rod or stick that is exactly the same size.

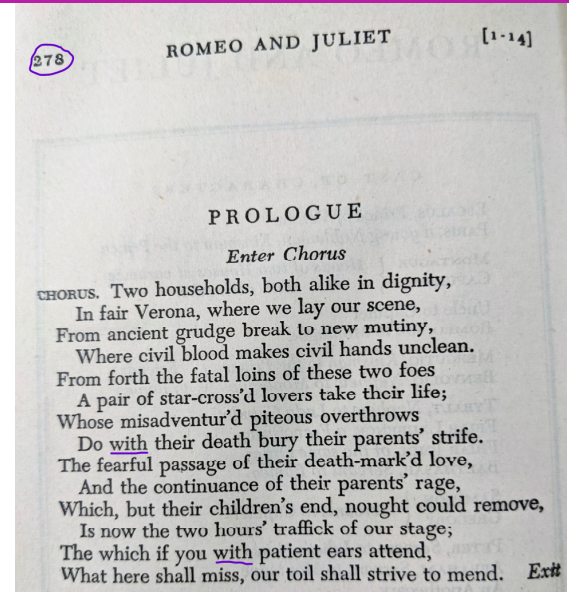
You'll need a little preparation for this one:

- Get two toilet paper or paper towel tubes, large dowel rods, or broom handles that are **exactly** the same size around.
- Cut several long strips of paper out and tape them end to end—you can use a strip about 1/2 to 3/4 inches wide and 30 inches long for an average toilet paper tube.

Now you're ready to encrypt!

BOOK CIPHER

HOW TO USE THE BOOK CIPHER



In this page from Shakespeare's *Romeo and Juliet*, you might need the word **with**, so you would encode that as 278, 10, 2 **or** 278, 15, 5 — either one works.

SCYTALE

HOW TO USE THE SCYTALE CIPHER

Take your strip of paper and tape it on one end of the paper towel tube at a bit of an angle. Then wrap the paper around the tube in a spiral, with the paper edge to edge, until you run out of paper or space.

Write your message—one letter per strip—across your scytale. Traditionally, spaces are left out. When you're done, unwrap your paper strip and send it with your messenger!

Your receiving agent should wrap the paper around their scytale so the letters line up. If both scytales are the same size, the message will be clear!

