

EXPLORER ACADEMY

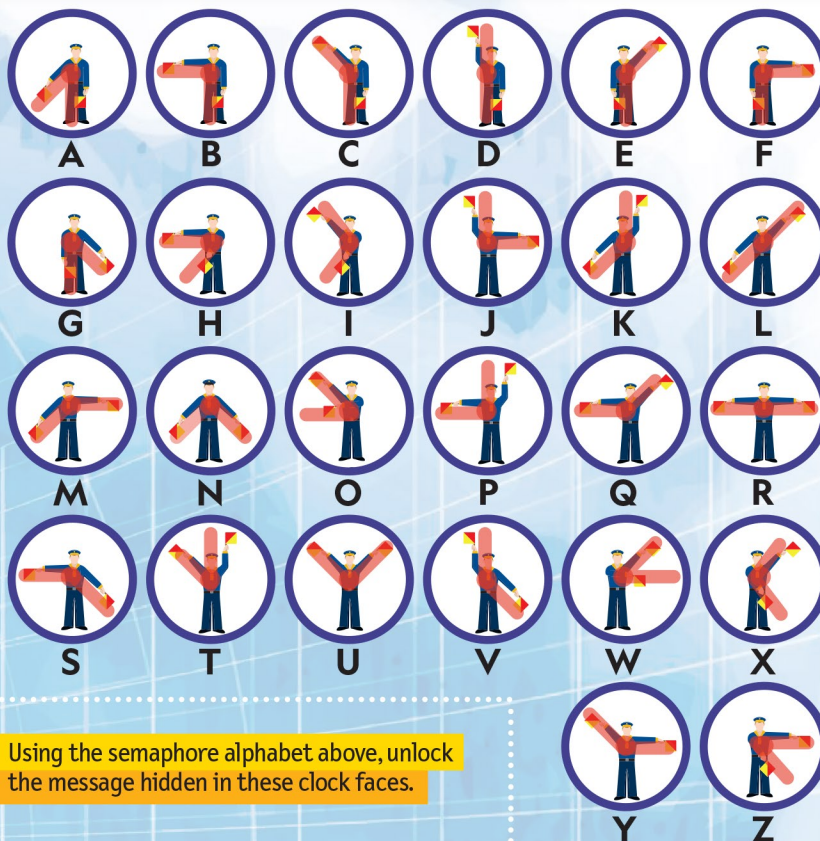
In the new book *Explorer Academy: The Nebula Secret*, 12-year-old Cruz Coronado breaks secret codes in order to fight dangerous villains and solve mysteries. Test your own skills by cracking the code on this page, then check out more about the book at ExplorerAcademy.com.

TEXT AND CODE BY GARETH MOORE

THE CODE: SEMAPHORE

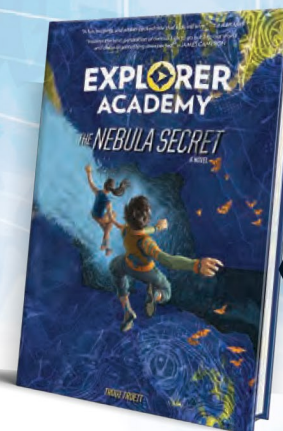
Semaphore is a flag-based communication system in which letters are represented by the way a person holds two flags. Once used by sailors to send messages to other ships, today this code is often used to signal airplanes. See how the code lines up with the flag positions on the right.

The flag positions can be hidden in any type of image. Below, we've hidden the positions in a clock face.



CRACK THIS CODE!

Using the semaphore alphabet above, unlock the message hidden in these clock faces.



CHECK
OUT
THE
BOOK!

BREAK MORE CODES!
ExplorerAcademy.com

EXPLORER ACADEMY

In the new book *Explorer Academy: The Nebula Secret*, 12-year-old Cruz Coronado breaks secret codes in order to fight dangerous villains and solve mysteries. Test your own skills by cracking the code on this page, then check out more about the book at ExplorerAcademy.com.

TEXT AND CODE BY GARETH MOORE

THE CODE: CAESAR CIPHER

To use this cipher, just shift every letter of the alphabet forward or backward a fixed number of spaces—you can move the entire alphabet as many spaces as you want. In this example, we shifted the alphabet just one space: *A* becomes *B*, *B* becomes *C*, and so on until you reach the end of the alphabet. Then *Y* becomes *Z*, and *Z* becomes *A*.

You can write this out as a table. The bottom row is the code, and the top letters are the translations.

A	B	C	D	E	F	G	H	I	J	K	L	M
B	C	D	E	F	G	H	I	J	K	L	M	N
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
O	P	Q	R	S	T	U	V	W	X	Y	Z	A

So if you decode **X F M M E P O F**
it says: **W E L L D O N E**

CRACK THIS CODE!

Using the Caesar cipher table above,
decode the message below.

WRITE LIKE A ROMAN

This code got its name because according to an ancient writer, the Roman politician and general Julius Caesar used this simple substitute cipher to keep his letters secure.

T P N F U I J O H
— — — — —
E B O H F S P V T
— — — — —
J T V O E F S
— — — — —
U I F
— — — — —
X B W F T .
— — — — —

BREAK MORE CODES!
ExplorerAcademy.com

CHECK
OUT
THE
BOOK!



ANSWER: SOMETHING DANGEROUS IS UNDER THE WAVES.

EXPLORER ACADEMY

THIS IS A CAESAR CIPHER

It is known as a “substitution cipher” where you replace each letter of the alphabet with another letter by shifting the whole alphabet a certain number of letters.

MAKE YOUR OWN SECRET CODES!

Punch the circles out, put the larger circle on the bottom and the smaller circle on the top, secure in the middle with a pin and start decoding! Instruction on how to use it are on the back. Now, you can send secret messages to your friends. Welcome to the Academy, Explorer!



EXPLORER ACADEMY

ADVENTURE, DANGER, AND A THRILLING GLOBAL MISSION

await 12-year-old Cruz Coronado at the Academy, where he, and 23 other students from around the world, will train to become the next generation of great explorers.

Available wherever books are sold.

ExplorerAcademy.com



HOW TO USE THIS CIPHER:

STEP 1: Pick two letters and line them up on the wheel, one letter being on top on the outer wheel, another directly below on the inner wheel. This means that you will be replacing the letter on the outer wheel with the letter directly below it on the inner wheel.

Example: use A on the outer wheel and X on the inner wheel

STEP 2: Hold the wheels in place and don't let them shift, find the letters you want on the outer wheel, writing down the corresponding letters from the inner wheel.

Example: Using A and X, HELLO turns into KHOOR

STEP 3: When sending messages to your friend, make sure to tell them which letters to match up. That's the key to the cipher and anyone who doesn't know the letters won't be able to read your message!

Your friend can decode your message
by making their own
Caesar Cipher.

UNDER THE *Stars*

 NATIONAL
GEOGRAPHIC

© 2018 National Geographic Partners, LLC