

American SPY Academy

CAESAR CIPHER WHEEL

You've already been introduced to the substitution cipher (see American Spy Academy, Lesson Eight). But the Caesar cipher wheel allows you to create 25 different ciphers, and make a quick change whenever you need to be tricky!

How to Make a Caesar Cipher Wheel:

What you need:

1. A printout of this lesson (ask a parent for help if needed)
2. Scissors
3. A paper clip
4. A paper fastener (sometimes called a "brad") that can be used to attach the two disks of the cipher wheel. (optional)

What to do:

1. Print out this lesson.
2. Carefully cut out the two disks of the cipher wheel.
3. Place the inner (smaller) disk on top of the outer (bigger) disk.

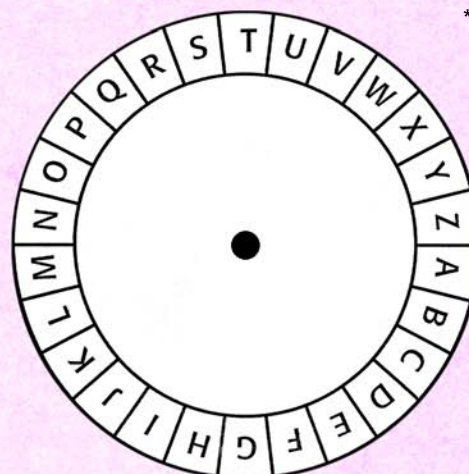
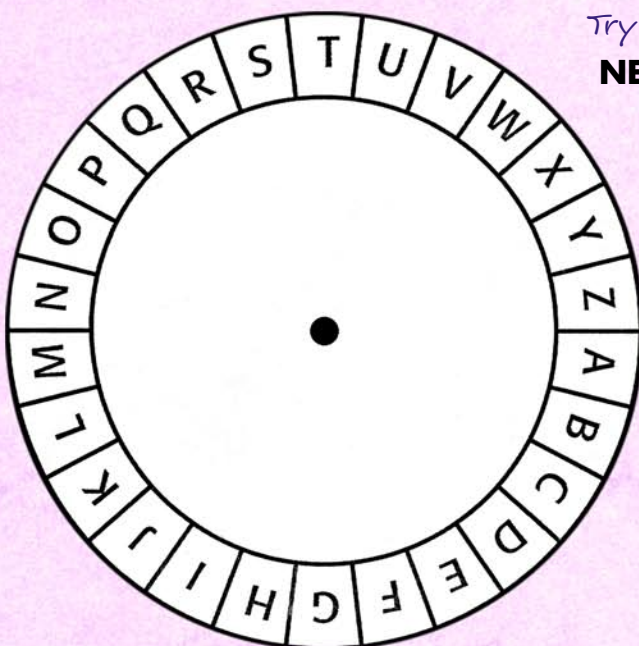
4. To keep your wheel together, use the brad (paper fastener) to attach the smaller disk to the larger disk; just push it carefully through the middle of the two disks, and unfold the metal tabs underneath the disks.
5. Decide how many places you want the alphabet to "shift" for your first cipher. For instance: if you choose 4, the alphabet shifts four letters, so line up the letter A on the outer disk with the letter E on the inner disk.
6. Use the paper clip to hold the disks in place until you want to change the cipher.

The trick of it: You're ready to encipher a message! Find the first letter you want to encipher on the outer wheel, and look below it on the inner wheel to find the corresponding cipher letter. Repeat for each letter of the message. To decipher the message, do the reverse.

Try deciphering this message:

NEOI MW E HSYFPI EKIRX

Hint: Align outer wheel "A" with inner wheel "E" for a 4-letter shift. Remember: To cipher a letter, read the inner wheel and to decipher a letter, read the outer wheel.



*To keep enemies in the dark, remember to give your wheel a spin and change your cipher often.

