SECRET MESSAGES

Encryption is the base on which cybersecurity is built and has a history that goes back hundreds of years!

Today we are going to make a secret message decoder wheel. Follow the instructions below to make your wheel:

1.Cut out all three decoder circles on the next sheet.

- 2. Stack the three circles with circle 1 on the bottom then circle 2 then circle 3
- 3. Carefully poke a brad through the center of all three circles. This is the Axis our decoder will spin on.



HOW TO ENCRYPT A MESSAGE

- Pick a letter on the outer wheel and a number in the inner circle this is your key (ex. K18).
- 2. Turn the inner wheel so that the number (in our example 18) lines up with the outer wheel letter (in our example K). On our wheel 18 also corresponds with R on the inner wheel. Don't move the wheels now, We suggest keeping them in place with a paperclip.
- 3. First, write down your message. Do not use any spaces and write out numbers if you have them.
- 4. For each letter of your message, find that character on the outer wheel, and write down the letter that is exactly beneath it on the inner wheel until your message is complete.

Example:

Key : K18



TO READ AN ENCRYPTED MESSAGE

Get the key from the message sender and align the wheel. For each letter of your message, find that character on the inner wheel, and write down the letter that is exactly above it on the outer wheel.
S T B D T Z L T Y N Y



Burke Museum Teen STEM Cafe 2021



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