

# ENCRYPTION

PLEASE MAKE SEARCH ABOUT ENCRYPTION AND SHARE WITH US ONE MESSAGE!

ETWINNING PROJECT 11 NIS 2021, 21:55

## SLOVAKIA (Monika)

### sk.Renatka

#### What is encryption?

- o This is the confidentiality of message content

#### Where is the encryption used?

- o If you need to sell information to someone at the same time we want to make sure that no one else knows the information

#### What are the encryption tools used throughout history?

- o In history, they shuffled the order of the letters or replaced the individual symbols of the text content with designated additional symbols or groups of symbols.

- o We can decipher the encrypted text back to the original and gain access to the information.



### sk.Nina

What is encryption?

- o Encryption is a way of scrambling data so that only authorized parties can understand the information.

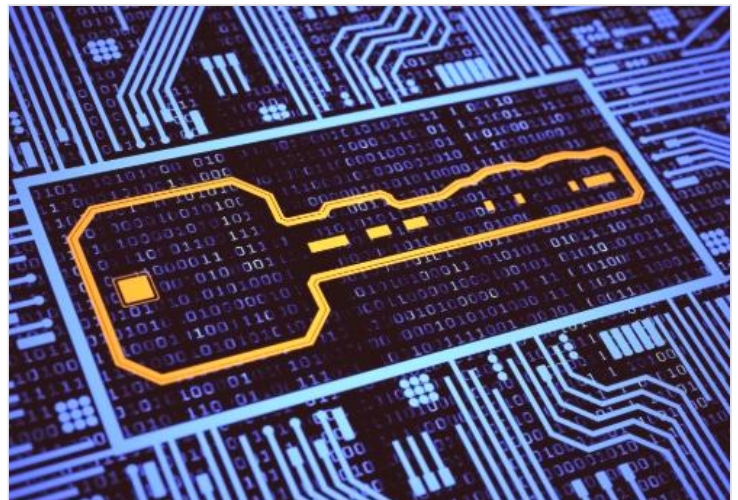
Where is the encryption used?

- o Encryption is used in electronic money schemes to protect conventional transaction data like account numbers and transaction amounts.



### sk.Emanuella

In cryptography, encryption is the process of encoding information. This process runs the original demonstration of information known as plain text into an alternative formula known as ciphertext. Ideally, only authorized parties can decrypt the ciphertext back into plain text and access the original information.



### sk.Vanesa

What is encryption?

- o Encryption is the process of encoding information, denying comprehensible content.
- o It is a representation of the original text on the encrypted.

### sk.Saška

Very simply, you can say that encryption is writing text in such a way that it can the unauthorized reader had no chance to understand.

It is most often encrypted in its various forms used in communication: one person has the information he needs to send to another; however, he does not want to anyone else could read it along the way.



### sk.Marianka

- Encryption is a means of securing data by encoding it mathematically such that it can only be read, or decrypted, by those with the correct key or cipher.
- Digital encryption processes translate data using an algorithm that makes the original information unreadable except for authorized users.
- Encryption is crucial in a digitally-connected world to keep private information, messages, and financial transactions private and secure.

wau – ANONIM

### sk.Monika

Encoding or encryption is the transformation of information from one form to another using a parameter algorithm. If the parameter is public, it is encoding, if it is secret, it is encryption



### skMaruska

What are the interesting cryptographic events in history?

In 1917, Gilbert Vernam proposed a teleprinter cipher in which a previously prepared key, kept on paper tape, is combined character by character with the plaintext message to produce the cyphertext. This led to the development of

electromechanical devices as cipher machines, and to the only unbreakable cipher, the one time pad.



### sk.helenka

Cryptography, the use of codes and ciphers to protect secrets, began thousands of years ago. Until recent decades, it has been the story of what might be called classic cryptography – that is, of methods of encryption that use pen and paper, or perhaps simple mechanical aids. In the early 20th century, the invention of complex mechanical and electromechanical machines, such as the Enigma rotor machine, provided more sophisticated and efficient means of encryption; and the subsequent introduction of electronics and computing has allowed elaborate schemes of still greater complexity, most of which are entirely unsuited to pen and paper. The development of cryptography has been paralleled by the development of cryptanalysis – the "breaking" of codes and ciphers. The discovery and application, early on, of frequency analysis to the reading of encrypted communications has, on occasion, altered the course of history. Thus the Zimmermann Telegram triggered the United States' entry into World War I; and Allied reading of Nazi Germany's ciphers shortened World War II, in some evaluations by as much as two years. Until the 1960s, secure cryptography was largely the preserve of governments. Two events have since brought it squarely into the public domain: the creation of a public encryption standard, and the invention of public-key cryptography.

### sk.nika

Encryption is a term that comes from the science of cryptography. It includes the coding and decoding of messages in order to protect their contents.

One of the most ancient forms of encryption is letter substitution. For example: Substitute the letters in your message with the next ones. That way "I love math" will become "J mpwf nbui".

### sk.julia

What is the relationship between encryption and mathematics?

Cryptography is the science of using mathematics to hide data behind encryption. It involves storing secret information with a key that people must have in order to access the raw data. Without cracking the cipher, it's impossible to know what the original is.

Most cryptographic algorithms use keys, which are mathematical values that plug into the algorithm. If the algorithm says to encipher a message by replacing each letter with its numerical equivalent (A = 1, B = 2, and so on) and then multiplying the results by some number X, X represents the key to the algorithm.

## sk.viktoria

What is encryption?

Encryption is the method by which information is converted into secret code that hides the information's true meaning.

Where is the encryption used?

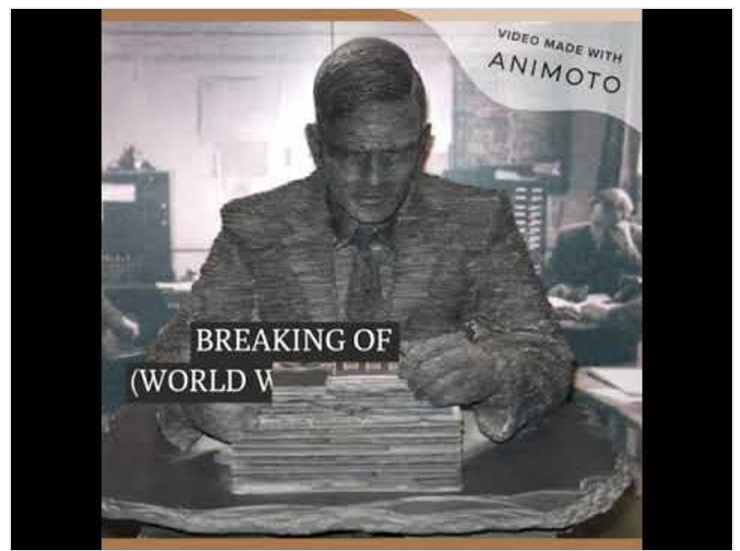
Encryption makes the modern world go round. Every time you make a mobile phone call, buy something with a credit card in a shop or on the web, or even get cash from an ATM, encryption bestows upon that transaction the confidentiality and security to make it possible.

What is the relationship between encryption and mathematics?

Cryptography is the science of using mathematics to hide data behind encryption. Most cryptographic algorithms use keys, which are mathematical values that plug into the algorithm.

## TURKEY (Nevin)

**You can see the encryption methods/ tools from the past to the present in the video below. Video prepared by Kırıkkale High School.**



### Encryption History

kkale lise tarafından

YOUTUBE

## Beren C.\TURKEY

MEXICAN ARMY CIPHER WHEEL

- Developed by Mexican in 19th century
- It was used during the Mexican Revolution
- It is deciphering and enciphering tool
- It consists of 5 concentric rotatable wheels



## Gül /TURKEY

Columnar **transposition** (or rectangular **transposition**) which consists of writing the plain message in a table / grid / rectangle, then arranging the columns of this table according to a defined permutation.

The permutation key is a series of numbers (often generated from a word) which indicates in which order to arrange the columns.



## POLYBIUS ENCRYPTION ( RABIA A./TURKEY)

It is a simple method used in ancient Greek times. It was developed by the famous historian Polybius(150 BC). It is a method that converts letters to numbers with square checkboards. Mathematics and numbers have always been used for encryption.

FOR EXAMPLE :

ETWINNING=154452243333243322

	1	2	3	4	5
1	A	B	C	D	E
2	F	G	H	I/J	K
3	L	M	N	O	P
4	Q	R	S	T	U
5	V	W	X	Y	Z

## First encryption technique in history. (EFEÇ./TURKEY/Kırkkale)

Similar to today's practice, one of the first encryption studies with the purpose of transmitting secret messages was BC. 5-7. Used by the Spartans in the centuries. The cylinder-like vehicle, called Scytale, was used to carry the encrypted message by replacing the symbols on it. It is stated that this method, which is an example of the alternating encryption type and used by the Spartans in wars, has a low margin of error but a high probability of being resolved.



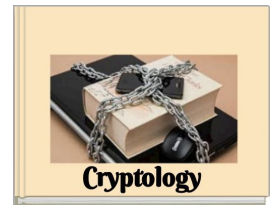
## E-BOOK about encryption science: Cryptology

This book was prepared by Kırkkale High School for another friend:) eTwinning project (Mysterious Ciphers). You can find useful information about challenge 9 in the book.

"Cryptology"

D M tarafından

STORYJUMPER



## CZECHIA (Gabi)

### Petr CZ

**encryption** is the process of encoding information. This process converts the original representation of the information, known as plaintext, into an alternative form known as ciphertext. Ideally, only authorized parties can decipher a ciphertext back to plaintext and access the original information. Encryption does not itself prevent interference but denies the intelligible content to a would-be interceptor.

### Kristyna CZ

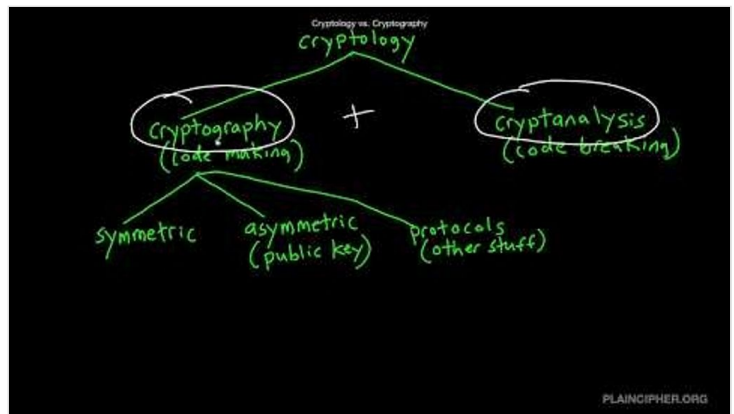
Cryptography or encryption is the science of methods of concealing the meaning of messages by converting them into a form that is readable only with special knowledge. The word cryptography comes from the Greek - cryptós is hidden and gramphain means to write

### Alex, CZ

## What is cryptography?



**What is Cryptography? The Importance of Cryptography**  
Eye on Tech tarafından  
YOUTUBE



**Cryptology vs. Cryptography**  
Plaincipher Cryptologic School tarafından  
YOUTUBE

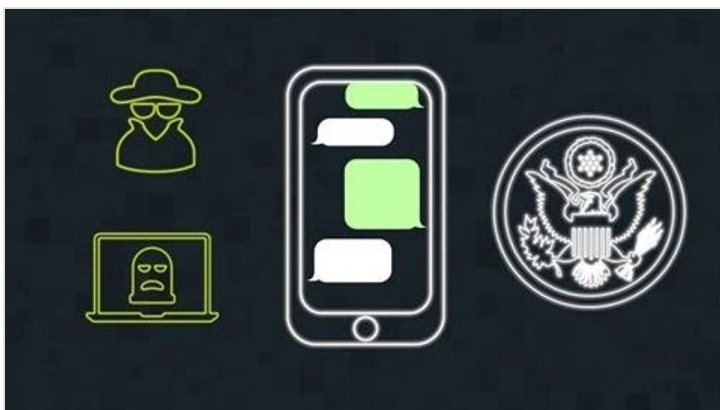
## Vojta, CZ

Video about Fully Homomorphic Encryption



**Fully Homomorphic Encryption | The Future of Cryptography**  
Cryptosense tarafından  
YOUTUBE

## Andrej, CZ



**How Encryption Works - and How It Can Be Bypassed**  
Wall Street Journal tarafından  
YOUTUBE

## Michaela, CZ

## Jakub, CZ

**Traditional encryption vs Modern encryption**

### Traditional encryption

This type of encryption is simply done by manipulating the letters of the main (like in the first part of this challenge for example).

They are generally weaker than modern encryption.

This type of encryption relies mostly on the obscurity of the encryption technique.

### Modern encryption

This type of encryption uses binary to encrypt the plain text. With this type of encryption you need to possess a secret key (a code or link for example).

This type of encryption is generally stronger than traditional encryption.

The security of this algorithm depends on the publicly known mathematical algorithm

## Mikhail, CZ

10 interesting facts about encryption.

### We're sure you don't know these 10 interesting facts about encryption

9 out of 10 users aren't aware that their photos, videos, documents etc. aren't safe online. Here's our proof! Yeah, you've probably heard that one from us before. That's because we believe that data security is important and we try our best to ensure no one touches your files.



MEDIUM

## Grigoriy, CZ

### Enigma

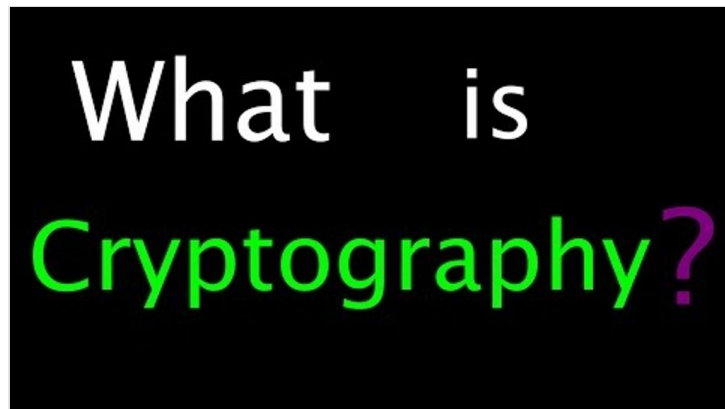
The Enigma machine is a cipher device developed and used in the early- to mid-20th century to protect commercial, diplomatic, and military communication. It was employed extensively by Nazi Germany during World War II, in all branches of the German military. The Germans believed,

erroneously, that use of the Enigma machine enabled them to communicate securely and thus enjoy a huge advantage in World War II. The Enigma machine was considered to be so secure that even the most top-secret messages were enciphered on its electrical circuits.

Enigma was broken with great effort from all allied countries, such as Poland, France and England. Germans believed in their cypher-machine and too late understood that it was broken. This circumstance gave Allied forces an opportunity to know German plans for long time.

## Tana, CZ

What is cryptography?



**What is Cryptography - Introduction to Cryptography - Lesson 1**

In this video I explain the fundamental concepts of cryptography. Encryption, decryption, plaintext, cipher text, and keys. Learn Math Tutorials Bookstore <http://amzn.to/1HdY8vm> Donate - <http://bit.ly/19AHMvX>


YOUTUBE

## Roman, CZ

Interesting website about cryptography with short videos. 😊

**11 Cryptographic Methods That Marked History: From the Caesar Cipher to Enigma Code and Beyond**

Ciphers, codes and other encryption methods have been used throughout history by most civilization in some form or other to prevent non-authorized people from understanding messages. They have increased in sophistication considerably throughout history and are commonly in use today.



INTERESTINGENGINEERING

## Julca, CZ

Data encryption is a process that does not secure electronic data converted by cryptography to encrypted data, available only to the owner of the decryption key. Data encryption serves to protect them against detection by third parties and Member States when accessing and transmitting data, including telecommunications.

## Patrik, CZ

<https://theconversation.com/encryption-today-how-safe-is-it-really-37806>

## Gabi, CZ

# What is cryptography?



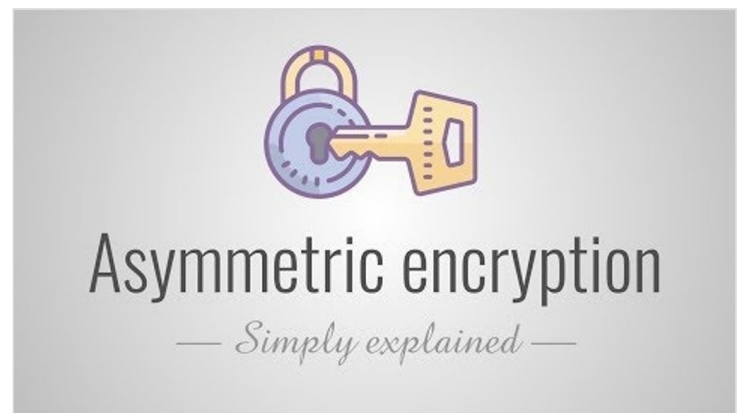
**What is cryptography? | Journey into cryptography | Computer Science | Khan Academy**

Khan Academy tarafından

YOUTUBE

## Kačka/CZ

Video about asymmetric encryption



**Asymmetric encryption - Simply explained**

Simply Explained - Savjee tarafından

YOUTUBE

## imelda.cz

[https://www.youtube.com/watch?v=S5JDPi\\_6N2s](https://www.youtube.com/watch?v=S5JDPi_6N2s)

# description

## Description Meaning

SDictionary tarafindan

YOUTUBE

## Kristýna/CZ

## Štěpánka CZ

<https://youtu.be/fMACmQ9aL4>

## David/CZ



## What is Encryption and How Does it Work? | Mashable Explains

Mashable tarafindan

YOUTUBE

## Tereza CZ

**Asymmetric encryption** Asymmetric encryption solves the problem of key distribution to the recipient. Here, unlike symmetric encryption, there is no need to get the secret key securely to the other party. As the name implies, another key is used to encrypt and another back to decrypt. Each participant in the communication has two keys. The first is public, the others may or even need to know it. The second is private. This key pair has the property that one encrypts the message and decrypts the other. Therefore, the sender encrypts the message with the recipient's public key. He receives the encrypted message and decrypts it with his private key. Because he is the only one with this private key, no one can read the message. (Of web, if we

use another key that does not belong to the key that was encrypted, we get nonsense).

## TURKEY (Berna)

## ÜNYE SCIENCE HIGH SCHOOL

(BERNA ARSLAN )

## Vigenère Encryption(mrgsudenur)

Blaise de Vigenère, the French diplomat and cryptologist, developed the Caesar encryption and took it to the next level. This time, we set a keyword for the text we will encrypt. We encrypt our text using a keyword and the "Vigenère Table" The steps we need to follow to do Vigenère encryption are as follows:

Creating a Vigenère Chart based on the alphabet you specified.

Covering the text to be encrypted with the specified key text.

After the second step, encrypted text is created by finding the encrypted letters using the table created in the first step.

Let our word to be encrypted be "telephone" and our key word be "branch". We write our keyword repeatedly until it completely covers the text to be encrypted.

t e l e f o n (7 letters)

d a l d a l d (7 letters)

Looking at the correspondence of the overlapping letters in the table, we obtain our encrypted text.

"T" x "d" = "w"

"E" x "a" = "e"

"L" x "l" = "w"

"E" x "d" = "h"

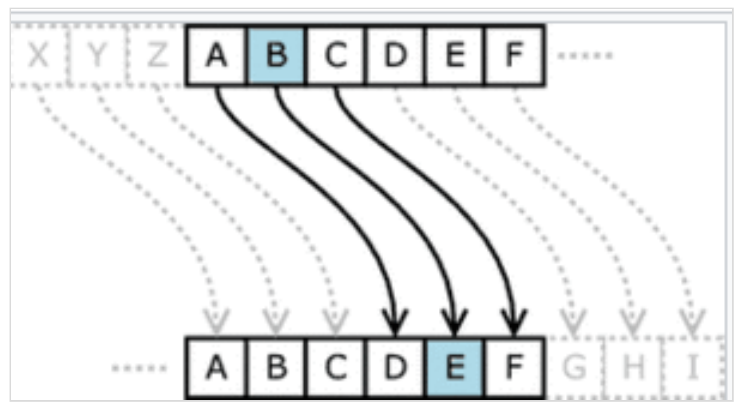
"F" x "a" = "f"

"O" x "l" = "z"

"N" x "d" = "q"

Our encrypted text is "wewhfzq".

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



## Quantum Computers, Quantum Physics and Encryption(mrgçağla)

Uzmanlar kırılmaz bir şifre arayışı içinde bugünde çalışma içerisindeyler. Bunun için yaygın olarak Kuantum teknolojisini kullanmak isterler. Yani Kuantum Fiziği ile Kuantum Bilgisayarları bir araya getirerek kırılması imkansız bir şifreleme üzerinde çalışıyorlar.

## 10 tips for creating a strong password(mrgesmanur)

Passwords to help you fend off malicious people on the internet.Never use the same password for several different accounts.

- Do not use descriptive terms in person.
- Avoid common words and phrases.
- Use different types of characters.
- Set a long password.
- Spell some words wrong.
- Use two-factor authentication.
- Change your password regularly.
- Never share or save your password.
- Use a password manager.

## Caesar encryption (mrgzerrin)

Caesar encryption is the encryption technique that was first reproduced by the Roman leader Julius Caesar.

The first cryptological ideas of history carry the name transposition and substitution cipher in English, i.e. displacement and letter substitution cipher. One of these methods is obtained by replacing the letters in a text, and the second by replacing them with other letters. Perhaps the most famous technique that uses this encryption is the Caesar Cipher: In this cipher, its letters are written a few subsequent letters. For example, in the Caesar Cipher written in 3 letters, "ghqhp" is written instead of "trial".

## CRIPTOLOGY TODAY (mrgfatmagül)

Nowadays, the purpose of encryption is to prevent the information shared between the two parties from falling into the hands of others.Encryption methods are used to keep our data safe in many applications, including transactions such as credit card numbers, confidential documents, Bitcoin exchanges. Blockchain, the technology behind Bitcoin, connects hundreds of thousands of computers over a distributed network and uses encryption to protect each user's identity and keep a permanent record of their transactions.

## BOSNIA AND HERZIGOVINA (Lejla)

### 1. What is encryption?

Encryption is the method by which information is converted into secret code that hides the information's true meaning.

### 2. Where is the encryption used?

Encryption makes the modern world go round. Every time you make a mobile phone call, buy something with a credit card in a shop or on the web, or even get cash from an ATM, encryption bestows upon that transaction the confidentiality and security to make it possible.

### 3. What is the relationship between encryption and mathematics?

Cryptography is the science of using mathematics to hide data behind encryption. Most cryptographic algorithms use keys, which are mathematical values that plug into the algorithm. If the algorithm says to encipher a message by replacing each letter with its numerical equivalent (A = 1, B = 2, and so on) and then multiplying the results by some number X, X represents the key to the algorithm.



#### 4. What would life be without encryption?

In our day-to-day lives, the use of encryption is everywhere. For example, we use it to securely send passwords over vast networks for online purchases. If all of the cryptographic engines/functions stopped working for a day, modern life as we know it would stop. Bank transactions wouldn't go through, internet traffic would come to a halt, and cell phones would no longer function. At this point, all of our important information would be exposed, and it then could be exploited to do unimaginable harm to us all.

#### 5. What are the interesting cryptographic events in history?

During World War II, the Allies scored some notable victories against the Germans because their encryption systems did not sufficiently scramble messages. Rigorous mathematical analysis by Allied code crackers laid bare patterns hidden within the messages and used them to recreate the machine used to encrypt them.

#### 6. What are the encryption tools used throughout history?

Circa 600 BC: The ancient Spartans used a device called a scytale to send secret messages during battle.

This device consists of a leather strap wrapped around a wooden rod.

The letters on the leather strip are meaningless when it's unwrapped, and only if the recipient has the correctly sized rod does the message make sense.

Circa 60 BC: Julius Caesar invents a substitution cipher that shifts characters by three places: A becomes D, B becomes E, and so on. A simple and effective encoding method at that time.

1553: Giovan Battista Bellaso envisions the first cipher to use a proper encryption key - an agreed-upon keyword that the recipient needs to know if he or she wants to decode the message.

1854: Charles Wheatstone invents the Playfair Cipher, which encrypts pairs of letters instead of single ones and is, therefore, harder to crack.

1917: An American, Edward Hebern, invents the electro-mechanical machine in which the key is embedded in a rotating disc. It's the first example of a rotor machine. It encodes a substitution table that is changed every time a new character is typed.

1918: German engineer Arthur Scherbius invents the Enigma machine (pictured) for commercial use. Rather than the one rotor used by Hebern's device, it uses several. Recognizing its genius, the German military begins to use it to send coded transmissions.

## TURKEY (Uğur)

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### Encryption Methods

Cryptography means the science of encryption. With the rapid development of technology, military, electronics, banking systems and many other places have become the areas of use of cryptography science. One of the most important requirements in today's systems is the smooth transportation of information and privacy. Various encryption, keying and decoding algorithms developed through the science of cryptography are used so that data can be sent securely and received from the other side. The most widely used of the cryptology algorithms is encryption algorithms. The encryption algorithm takes the text to be encrypted and the encryption key as input. The parsing algorithm works in the opposite direction of the encryption algorithm.

## TURKEY (Evrım)

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### Berk A.

Steganography means "hidden text" in ancient Greek and is the name given to the science of hiding information (important: not encryption). The biggest advantage of Steganography over encryption is that a person who sees the information does not realize that what he sees contains important information, so he does not look for information in it (whereas an encrypted message attracts attention because of its mystery, even if it is difficult to decode).

Historically, steganography has been used both before and after encryption (due to its uninteresting advantage).

### Çağla A.

Scytale Was A Simple Cipher Used By The SpartansIts First Appearance: Ancient Greece - 7th Century BCWhere It Appeared: Classical/Ancient Greece/SpartaWhen It Was Cracked (if applicable): Unknown - But known about by Plutarch (50-120AD)Scytale was an ancient form of encryption commonly in ancient/classical Greece. It is a form of transposition cipher where letters are re-arranged in the messages prior to being deciphered by the recipient. This method involved the use of a cylinder around which a parchment was wrapped and the message written onto it. The recipient would use a rod of the exact same dimensions to read the message.Given its simplicity, it was easily decipherable by the enemy too.

### Melisa N.

One of the most popular encryption methods after Caesar encryption has been Rotational Encryption (English Rotor Machine). The most popular example of these machines is Nazi Germany's II. It is a device called the Enigma machine during World War II.

The most important feature of the rotational cipher machine is that the encryption can be dynamically changed by combining several rotors: for example, the first letters can be encrypted with one type of encryption, the second letters with another type of encryption, and the third letters with another type of encryption.

To crack such ciphers, the most popular letter sequences should be known rather than the most popular ones; For example, in English, the letters NG and ST are frequently encountered one after the other.



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

## Feyza T.

The Vigenère Cipher Should Be Called The Bellaso Cipher

Its First Appearance: 1467

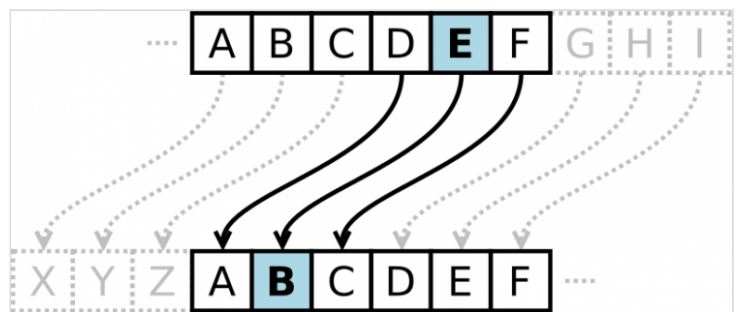
Where It Appeared: Italy

When It Was Cracked (if applicable): Decryption technique published in 1863

The Vigenère cipher is now widely accepted to have been originally created by Giovan Battista Bellaso (an Italian Cryptologist). It was later misattributed to Blaise de Vigenère in the 19th Century, hence its current name.

It encrypts text using a series of interwoven Caesar ciphers based on a keyword. It is, therefore, a form of polyalphabetic substitution.

**Hüseyin A. The Caesar Shift Cipher Was Used By the Roman Army Its First Appearance: Unknown - Likely 1st Century AD Where It Appeared: Roman Empire When It Was Cracked (if applicable): Unknown - Likely between 5th and 9th Century AD The cipher was named in honor of Julius Caesar who, according to Suetonius, used it to encrypt military and other official messages. As the majority of Rome's enemies were illiterate at this time the cipher remained secure for a time. By the 9th Century AD, after the fall of Rome, records exist of methods to crack it using frequency analysis from Al-Kindi.**



**POLAND (Agnieszka)**

**PORTUGAL (Ana)**

# **TURKEY (Elif)**

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