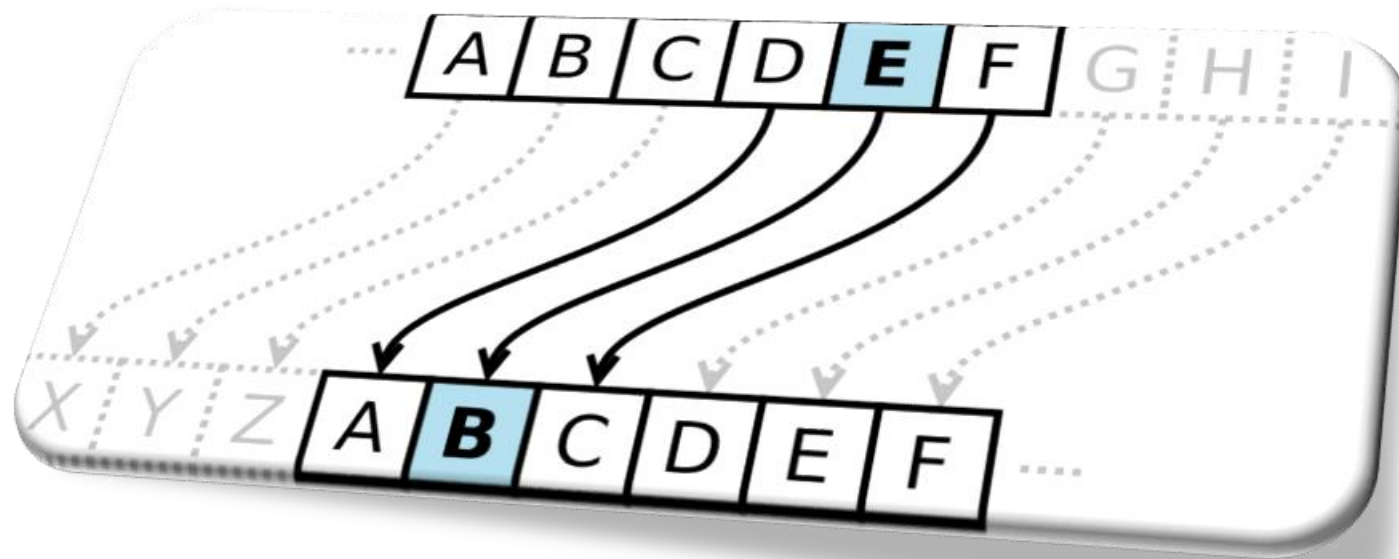# ENCRYPTION

SIMPLE ENCRYPTION ALGORITHMS

Caesar Cipher

The Caesar cipher, also known as a shift cipher, is one of the simplest forms of encryption. It is a substitution cipher where each letter in the original message is replaced with a letter corresponding to a certain number of letters up or down in the alphabet.

5-Bit

The alphabet, A-Z can be represented in 2^5 (1-5 bits):

A = 00001

B = 00010

C = 00011

D = 00100

E = 00101

. . .

Z = 11010

A	N	I	M	A	L
00001=1	01101=13	01001=9	01100=12	00001=1	01011=11

XOR

Exclusively XOR'ing a character with a Bit Pattern:

Character: N (1101)
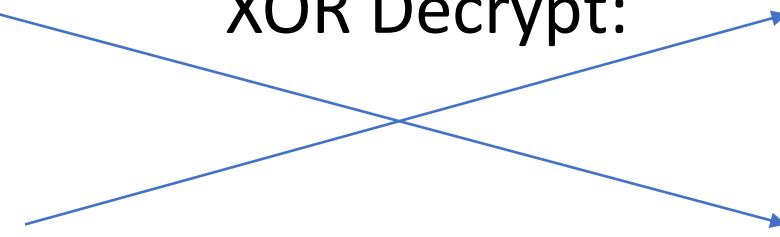
Bit Pattern: 1010

XOR Encrypt: 1101   XOR Decrypt: 0111

1010   1010

0111   **1101**

Exchange

Exchange low order of byte (character) with high order byte:

Character: N
Bit Pattern: 01001110
Low byte: 1110
High byte: 0100
Swapping: 11100100