

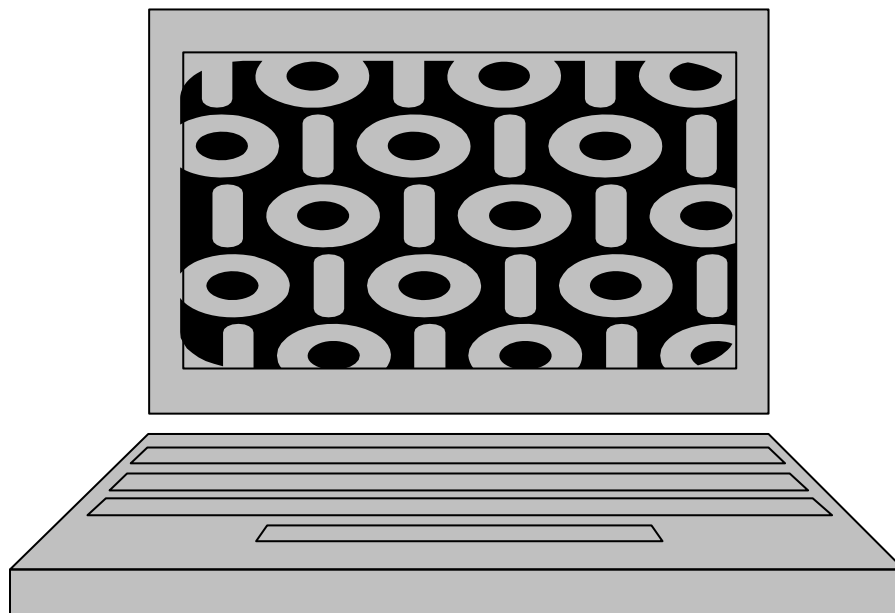
Overview of the Binary Code

(The Language of the Computer)

All of the information that travels through your computer is based on **two commands**. The only data that a computer can understand is **on and off (1 and 0)** which represents electrical pulses going through the computer system. We call this system the **Binary System**.

As demonstrated in the chart provided, it takes 8 characters of the binary code before the computer can understand just one letter that we type. For example, the letter 'a' in binary code is equal to 0110 0001.

The millions of combinations of those two commands given in series are what make a computer understand the many different characters that we type in daily. If you wrote down all the different combinations of ones and zeros you would have 256 different combinations. The computer can easily understand these combinations of 1s and 0s within a millisecond.



BINARY ACTIVITY I

Please use the Binary Code Translation Chart provided to decode your name in binary code. Write your first name in the first column vertically in Standard English beginning with the upper case letter and continuing with lowercase letters. You must only put one letter and it's Binary Code in each row. If you do not have enough spaces for your first name, stop when you run out of spaces. If you have room left insert a blank character code and then begin your last name.

LETTER	BINARY NUMBER REPRESENTING LETTER

BINARY ACTIVITY II



Decode the following message written in binary code.

BINARY CODE	LETTER	BINARY CODE	LETTER
01001000		01101110	
01100001		01101001	
01110110		01100011	
01100101		01100101	
00100000		00100000	
01100001		01100100	
		01100001	
		01111001	
		00100001	

Name _____

BINARY ACTIVITY I

Write your first name in the first column vertically in Standard English beginning with the upper case letter and continuing with lowercase letters. You must only put one letter and it's Binary Code in each row. If you do not have enough spaces for your first and last name, stop when you run out of spaces. If you have room left insert a blank character code and then begin your last name.

LETTER	BINARY NUMBER REPRESENTING LETTER
A	0100 0001
m	0110 1101
y	0111 1001
	0010 0000
C	0100 0011
o	0110 1111
o	0110 1111
k	0110 1011

BINARY ACTIVITY II



Decode the following message written in binary code.

BINARY CODE	LETTER	BINARY CODE	LETTER
01001000	H	01101110	n
01100001	a	01101001	i
01110110	v	01100011	c
01100101	e	01100101	e
00100000		00100000	
01100001	a	01100100	d
		01100001	a
		01111001	y
		00100001	!

Binary Code Translation Chart

0	0011 0000	O	0100 1111	m	0110 1101
1	0011 0001	P	0101 0000	n	0110 1110
2	0011 0010	Q	0101 0001	o	0110 1111
3	0011 0011	R	0101 0010	p	0111 0000
4	0011 0100	S	0101 0011	q	0111 0001
5	0011 0101	T	0101 0100	r	0111 0010
6	0011 0110	U	0101 0101	s	0111 0011
7	0011 0111	V	0101 0110	t	0111 0100
8	0011 1000	W	0101 0111	u	0111 0101
9	0011 1001	X	0101 1000	v	0111 0110
A	0100 0001	Y	0101 1001	w	0111 0111
B	0100 0010	Z	0101 1010	x	0111 1000
C	0100 0011	a	0110 0001	y	0111 1001
D	0100 0100	b	0110 0010	z	0111 1010
E	0100 0101	c	0110 0011	.	0010 1110
F	0100 0110	d	0110 0100	,	0010 0111
G	0100 0111	e	0110 0101	:	0011 1010
H	0100 1000	f	0110 0110	;	0011 1011
I	0100 1001	g	0110 0111	?	0011 1111
J	0100 1010	h	0110 1000	!	0010 0001
K	0100 1011	I	0110 1001	'	0010 1100
L	0100 1100	j	0110 1010	"	0010 0010
M	0100 1101	k	0110 1011	{	0010 1000
N	0100 1110	l	0110 1100	}	0010 1001
				space	0010 0000

