

A STEM in the Park Take Home Activity



Science, Technology, Engineering, and Mathematics

Decoding Binary Codes



What You Need

- This card
- A pencil

What To Do

Try decoding the message below using the Binary Code Key provided.

Hint: Each letter has eight numbers associated with it. (Capital letters begin with 010, lowercase begin with 011.)

Learn...

Time Warner Cable uses digital signals to deliver much of its programming to your television. What is being transmitted through the cables are binary numbers made up of 1's and 0's representing the pictures that your digital cable box will convert to the picture that is shown on your television. This code of "1" and "0" bits is created by computers using billions of switches that are either "on" (1) or "off" (0). The strings of these 1's and 0's are de-coded to recreate each picture element, or pixel, that appears on the TV screen.

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Letter	Binary Code
A	01000001
B	01000010
C	01000011
D	01000100
E	01000101
F	01000110
G	01000111
H	01001000
I	01001001
J	01001010
K	01001011
L	01001100
M	01001101
N	01001110
O	01001111
P	01010000
Q	01010001
R	01010010
S	01010011
T	01010100
U	01010101
V	01010110
W	01010111
X	01011000
Y	01011001
Z	01011010

Letter	Binary Code
a	01100001
b	01100010
c	01100011
d	01100100
e	01100101
f	01100110
g	01100111
h	01101000
i	01101001
j	01101010
k	01101011
l	01101100
m	01101101
n	01101110
o	01101111
p	01110000
q	01110001
r	01110010
s	01110011
t	01110100
u	01110101
v	01110110
w	01110111
x	01111000
y	01111001
z	01111010

01010100 01101001 01101101 01100101
00100000 01010111 01100001 01110010
01101110 01100101 01110010 00100000
01000011 01100001 01100010 01101100
01100101 00100000 01101001 01101110
01110110 01101001 01110100 01100101
01110011 00100000 01111001 01101111
01110101 00100000 01110100 01101111
00100000 01110110 01101001 01110011
01101001 01110100 00100000 01101111
01110101 01110010 00100000 01000011
01101111 01101110 01101110 01100101
01100011 01110100 00100000 01000001
00100000 01001101 01101001 01101100
01101100 01101001 01101111 01101110
00100000 01001101 01101001 01101110
01100100 01110011 00100000 01110111
01100101 01100010 01110011 01101001
01110100 01100101 00100000 01100110
01101111 01110010 00100000 01101101
01101111 01110010 01100101 00100000
01010011 01010100 01000101 01001101
00100000 01100110 01110101 01101110
00101110

Your Answer Here:

This activity is brought to you by



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