

PIECING TOGETHER



ACTIVITY: BINARY CODE MESSAGE

FOR AGES: 5-15, or as developmentally appropriate

ESTIMATED TIME: 1-2 hours

STEM AREA: Technology (Coding): Electronics know what to do because of coding. Writing code is providing instructions for technology like your computer or cell phone.

CAREER OPTIONS: Computer Scientist, IT Specialist, Gaming Developer, Applications Architect, Computer Engineer

INSTRUCTIONS:

ITEMS NEEDED: sticky notes
paper
pen or pencil
print out of this activity sheet with code

PROCEDURE:

1. Have student look at the binary code on this activity sheet. Each letter corresponds with a grouping of numbers.
2. Have student write their name on a piece of paper. It is helpful to leave space between each letter.
3. Find the number next to each letter in the name. Underneath the student's name, have student write the number instead of the letter in their name. For example, the name SUE would look like this:
S U E
01010011 01010101 01000101
This is their name written in binary code!
4. Now, write the names of other family members or friends and repeat step 3 a few times.

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5. Find items around the house or in the room and write the names of each item on a sticky note. Then write the binary code for that item and stick the note to the item.
6. For a greater challenge, write the name of the item in binary code and have the student find the name of the item and stick the note to it.

OTHER OPTIONS:

Have student design their own code using pictures, numbers or letters. The code does not need to be one thing for one letter, it can be one thing for a whole word or sentence!

MORE CODING IF YOU LIKE THIS:

Online coding for kids: www.tynker.com

More Online Coding for All Ages: <http://www.codewizardshq.com/coding-websites-for-kids/>

Try Morse Code: www.morsecode.scphillips.com

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